



UNDERGRADUATE BULLETIN 2025

ASSUMPTION UNIVERSITY UNDERGRADUATE ADMISSIONS CENTER

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ASSUMPTION UNIVERSITY

"Educating Intelligences and Active Minds to Change the World"

Undergraduate Bulletin 2025

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GENERAL INFORMATION

HISTORY AND BACKGROUND

Assumption University was initially originated from Assumption Commercial College in 1969 as an autonomous higher education institution under the name of Assumption School of Business. In 1972, with the approval of the Ministry of Education, it was officially established as **"Assumption Business Administration College"** or ABAC. In May 1975, it was accredited by the Ministry of University Affairs. In 1990, it was granted new status as **"Assumption University"** by the Ministry of University Affairs.

The University is a non-profit institution administered by the Brothers of St. Gabriel, a worldwide Catholic religious order, founded in France in 1705 by St. Louis Marie De Montfort, devoted to education and philanthropic activities. The congregation has been operating many educational institutions in Thailand since 1901.

The University is an international community of scholars, enlivened by Christian inspiration, engaged in the pursuit of truth and knowledge, serving the human society, especially through the creative use of interdisciplinary approaches and cyberotechnology.

BACKGROUND OF ASSUMPTION UNIVERSITY

St. Louis Marie D' Montfort

A Pilgrim at The Tomb of St. Louis Marie De Montfort "You know that I am very indebted to this Saint and to his Treatise on True Devotion to the Blessed Virgin. Today because my pastoral visit has for the most part as its theme the sacrament of baptism, I would like to highlight the fact that, in the mind of St. Louis, the whole spiritual life flows directly from the sacrament of holy baptism as is shown by an important passage of the Act of Consecration to Jesus by the hands of Mary, written in his own precise wording".

These are the words spoken by the Pope in the parish church of Saint-Laurent-sur-Sèvre, during his visit on 19th September 1996 to the tombs of Saint Louis Marie de Montfort and Blessed Marie Louise Trichet. Several times before this, the Pope had recalled that his reading of the True Devotion had been a decisive

turning-point in his life, and that Montfort's spirituality had brought him to understand that genuine Marian devotion, far from distracting us from Christ, is on the contrary rooted in the mystery of Christ and can only towards him.

Three congregations trace their foundation to Saint Louis Marie de Montfort namely:

- The Daughters of Wisdom, live out the loving search of Wisdom for wounded humanity through a variety of ministries, especially among those whom the world rejects and those alienated from the Church;
- The Company of Mary, popularly known today as the Montfort Missionaries, devoting themselves to priestly ministry and preaching
- The Brothers of the Christian Instruction of St. Gabriel, popularly known today as Montfort Brothers of St. Gabriel, formerly known as the Community of the Holy Spirit, dedicating themselves to Christian education and working among the underprivileged.

PHILOSOPHY

In loyalty to its Christian mission, Assumption University stands for

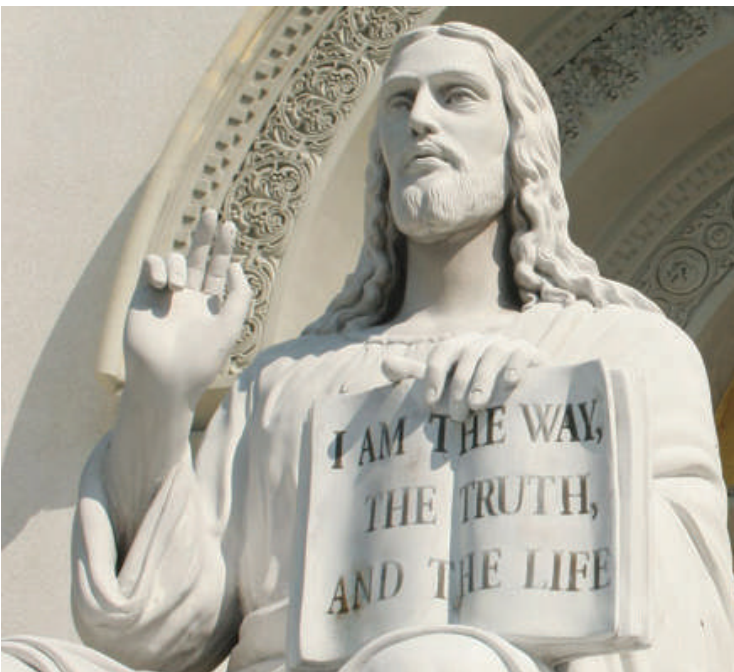
- The inculcation of respect for the three institutions of the Nation: Religion, Country, the King and a democratic way of life.
- The belief that a man justifies himself and his existence by the nobility of his work: **LABOR OMNIA VINCIT**
- The commitment to be a light that leads men towards the true source of all knowledge and life: **LUX VERITAS**

OBJECTIVES AND POLICIES

Assumption University exists for the main purpose of serving the nation by providing scientific and humanistic knowledge, particularly in the business education and management science through research and interdisciplinary approaches.

To this end it aims at forming intellectually competent graduates who :

- Are morally sound, committed to acting justly, and open to further growth.
- Appreciate freedom of expression, imbibe right attitudes and ideologies through a carefully integrated curriculum of Ethics, Science, Languages and Business Management.
- Achieve academic excellence through hard work, critical thinking, and effective decision-making.



SYMBOLS

Sedes Sapientiae : The Seat of Wisdom

It is a tradition handed down for centuries that Christians venerate the Mother of Christ as "the Seat of Wisdom". (Sedes Sapientiae)

According to Christian belief, Christ is the wisdom seated on the Throne. This implies, on the one hand, that the Mother of Christ is the Dwelling Place of the Supreme Wisdom of all science.

On the other hand, the university is the Alma Mater, or our Mother who is also the "Dwelling Place of Knowledge". In this context, "Assumption" which, besides its religious meaning in glorification of the Mother of Christ, has yet another meaning in Thai, namely "the Abode of Abiding Knowledge" Rightly, "Assumption University" is the Seat of Wisdom.

Ashoka Tree

The Assumption University has adopted the Ashoka Tree as its symbol. The Ashoka Tree has as its scientific name "Polyalthia longifolia Benth & Hook. f. var. pandurata" of a Anonaceae Family, a native plant of India and Sri Lanka.

The Rationale behind the choice of the Ashoka Tree The reasons why the University has taken it as its symbol are the following:

1. The Ashoka Tree is an ever-green tree. This fact signifies freshness, coolness, and constancy, unwavering with the turning of seasons and the changes of time. Thus, it means that the University is determined to fulfill its mission, giving emphasis to academic excellence together with quality and virtues.

2. The Ashoka Tree has a most beautiful form, majestically tall, like a stupa.
3. The Ashoka Tree is a tree with a beneficial name, because it derives from an Indian word "Ashok", after the name of King Ashok, the Great, the most well known king during Buddha's time, full of wisdom both in the secular and religious realms.
4. Lastly, it is the tree first brought from India into Thailand in 1957 by the St. Gabriel Foundation of Thailand, patrons of this university (by Bro. John Mary). This first tree was planted in the compound of St. Gabriel's College, and the Forestry Department of Thailand named it "St. Gabriel Ashoka" on 15th December 1969.

Botanic Features of the Ashoka Tree

The Ashoka Tree is an ever green tree, of narrow-top can form and majestically tall. The bark is grey; its color becomes darker near the extreme top of the trunk, covered with leaves from the bottom to the top, so thick that the trunk's characteristics can hardly be clearly visible. Its leaves are lanceolate, about 0.5-0.7 inches wide, and 4-9 inches long. The widest part of the leaf is near the base; its rim is smooth, but twisted into a tide-like form. Its flower is white greenish shade, without odor, about 1.5-1.75 inches wide. Its fruit is ellipsoid, about 0.5 inches wide and 0.75 inches long, with smooth shiny skin; its color turns yellow, red, then finally black, when it is ripe. Normally, the ripening of the fruit OCCURS between July and August every year.

ACCREDITATION

The University is fully accredited by Commissions on Higher Education. Its graduates enjoy the privileges accorded to State University graduates. Its academic standards are accepted by the Civil Service Commission of Thailand.

Assumption University is recognized in the USA and other countries and transfer of credits from the University is accepted abroad. Graduates from the University can pursue advanced Degrees anywhere in the world. Assumption University is listed in the Handbook of Universities and other Institutions of the INTERNATIONAL ASSOCIATION OF UNIVERSITY in Paris, France.

The University is recognized by:

- The Association of Christian Universities and Colleges in Asia (ACUCA)
- The Association of Southeast Asian Institution of Higher Learning (ASAIHL)
- The International Federation of Catholic Universities (IFCU)



VISION

Assumption University of Thailand envisions itself as:

- An international community of scholars,
- Enlivened by Christian inspiration,
- Engaged in the pursuit of Truth and Knowledge,
- Serving human society, especially through the creative use of interdisciplinary approaches and cybertechnology.

Vision 2000 for The Assumption University Graduates
Assumption University of Thailand envisions its graduates as:

- Healthy and open-minded persons, characterized by personal integrity, an independent mind, and creative thinking,
- Professionally competent, willing to exercise responsible leadership for economic progress in a just society,
- Able to communicate effectively with people from other nations and to participate in globalization.

Coat of Arms

The coat of arms of the Brothers of St. Gabriel, which is AU's logo, is shown and engraved on many places but the biggest and noticeable one is on the wall at a stairway in the Hall of Fame.

It depicts four signs with meaningful content: the ship in the sea symbolizing the sea of life with difficulties that we have to struggle through; the DS Cross which represents Divinity and Science; A.M. and the white lilies to remind students to love their institution as their Alma Mater (Dear Mother) and be as pure in their thoughts, words and mind as the white lilies; and the star and the boat which symbolizes spiritual hope. The four symbols are framed by a shield under which is AU's motto "LABOR OMNIA VINCIT", which means: We can overcome all difficulties through working hard.

Brothers of st.Gabriel

The name "the Brothers of St.Gabriel" reminds us of those Brothers who sacrificed their lives, and their mother's land, in order to help educate and develop our Thai children to grow in the right path. "LABOR OMNIA VINCIT" is the motto of our university. "We can overcome all difficulties through working hard," or, as the Latin proverb says : "Work conquers all things,"

"Life-Boat" Symbolized By "The Ship in The Sea"

"The ship in the Sea" symbolizes that we have to keep on struggling and facing different difficulties in the sea of life, just like the ship or the boat that fights stormy wind, steamy sun and rainy sea in order NOT to capsize in the middle of the sea. This should always remind us that "Life is a Struggle" or " To Live is to Struggle" against the problems and difficulties and not to give up.





1.



2.



3.



4.

1. Life-Boat"
2. "DS" (read "D and S")
3. A.M. and The White Lilies
4. The Star and The Man In a Boat

"DS" (read "D and S")

• • • • • • • • • • Middle With The Cross •

"D" or Divinity represents "Religion". We all need religion in life and mind. The Cross is the symbol of "love" and sacrifice "just as Jesus sacrificed his life for our love and he redeemed our sins as he said: "There is no other love greater than sacrificing our life for others."

"S" or "Science" means "Knowledge," which is the root of man's ability to reason. Everyone should always aim at gaining more knowledge. the more we learn about mundane knowledge, the more we should also learn about "Dharma" or religious, ethical virtues.

Moreover, D|S also comes from the French phrase, "Dieu Seul," which means "ALL WE DO IS FOR THE GRACE OF GOD ONLY." It is to remind us of St. Louis Marie de Montfort, the founding Father of the Brothers of St. Gabriel's motto. With this powerful motto, we have the will to work without yielding to difficulties, at studies as well as at work. We all uphold it up to this day.

A.M. and The White Lilies

"A.M." is abbreviated from a Latin word, "ALMA MATER" meaning literally "Dear Mother," in Latin and indicating "MOTHER COLLEGE" which symbolizes that our institution is like our "Alma Mater", our own birth place and as a part of our own families. We should love our institution as much as we should love our own parents.

Moreover, "A.M" is also abbreviated from "AVE MARIA" (in Latin), the name of Jesus' Mother. This means that we should love our own Mother with our heart and soul. And the beautiful snow-white lilies are symbols to remind us that we should be clean and sincere with all our thoughts, words and minds, wherever we are.

The Star and The Man In a Boat

"The Star and the Boat" symbolizes "Spiritual Hope", meaning that religion is "the light of Dharma or Absolute Truth" and all the knowledge or sciences we have learned from the institution is "the Light of the Intelligence". Altogether they keep conduct and intelligence on track so we are not lost or capsized in the middle of the sea of life. "The man in the boat "reflects us, ourselves, rowing or guiding our own "boat of life."

"The Shield"

That Frames The "Four Symbols"

The "Shield" that frames the "Four Symbols" is the "COAT OF ARMS" which stands for "HONOUR," or "PRIDE and DIGNITY". It also represents the HONOUR, DIGNITY, PRIDE AND PRAISE that our institution has received from the King who reigns over the Kingdom.

The Olive Branches

The wreath of the "Olive Branches" stands for "Victory" or "Success." (In ancient times, in Greek History, the athletic winner received a wreath of olive branches from the king) Or, this represents "a wreath of high honour" to remind us that we should do good deeds to uphold the honour and fame of our beloved institution or "ALMA MATER" forever.



ASSUMPTION UNIVERSITY

EDUCATING INTELLIGENCES AND ACTIVE MINDS TO CHANGE THE WORLD



UNIQUENESS AND IDENTITY

AN INTERNATIONAL CATHOLIC UNIVERSITY
INCULCATING 3Es: ETHICS, ENGLISH,
ENTREPRENEURIAL SPIRIT

UNIQUENESS

An International
Catholic University

CATHOLIC UNIVERSITY

Catholic values
Catholic symbols
Catholic leader
Liturgical services

INTERNATIONAL UNIVERSITY

International programs
International scholars
International students
International recognition
Learning environment

IDENTITY

ETHICS
Integrity
Social consciousness & responsibility
Discipline

ENGLISH PROFICIENCY

ENTREPRENEURIAL SPIRIT

Leadership
Management knowledge
Labor omnia vincit



ASSUMPTION UNIVERSITY

EDUCATING INTELLIGENCES AND ACTIVE MINDS TO CHANGE THE WORLD



CORE VALUES

C = CATHOLIC SPIRIT
A = ACCOUNTABILITY
R = RIGHTEOUSNESS
E = EXCELLENCE

Assumption University's

UNIQUENESS

(An International Catholic University)

IICU

Catholic
Leader

Catholic
Values

Catholic
Symbols

International
University

Liturgical
Services



English
Proficiency



AU STUDENTS'

IDENTITY

3Es

Entrepreneurial
Spirit

Leadership

Management
Knowledge

Labor omnia vincit

Ethics

Integrity

Discipline

Social Consciousness

FACILITIES AND SERVICES



CAMPUSES

Assumption University maintains two campuses: the original campus located at Hua Mak in the city, and the new campus at Suvarnabhumi, some thirty minutes from the South of the city campus and twenty minutes from Suvarnabhumi Airport on the way to the Eastern Seaboard. The original campus is a compact, vertical campus comprised of 17 buildings with the tallest having a total of 16 floors. A small lake surrounded by lush gardens and seating is a focal point of beauty and tranquility. Food, convenience, and service shops to support student needs surround the campus. This will become the home of the postgraduate faculties.

The Suvarnabhumi Campus, constructed as a "University in a Park", comprises 200 acres of a beautifully landscaped assembly of mixed architecture surrounded by lush tropical gardens and trees. Designed to host the university's undergraduate degree programs, it offers everything: a meeting/exhibition center, hotel, non-coeducational dormitories, a magnificent chapel, a museum, eleven academic halls, and much more. The centerpiece of the campus is the Cathedral of Learning, a 39-story tower, which houses student support services, the library, reception halls, seminar rooms and offices. Transportation between the two campuses is convenient and inexpensive. Shuttles run throughout the day between various points in Bangkok and the Suvarnabhumi Campus.



FOOD SERVICE AND CAFETERIAS

Catering facilities are available to faculty, staff and students throughout both campuses. Contractor-operated facilities are in operation daily from 7.00 a.m. to 8.00 p.m. (Hours may change during semester breaks).

AU MALL

Located in Assumption University, Suvarnabhumi Campus. There are two buildings as the followings:

1. Two storey commercial Building
2. Three storey cafeteria

AU PLAZA

Located on the ground floor of Cathedral of Learning (CL Building) at Assumption University, Suvarnabhumi Campus.





BOOKSTORES

Bookstores on each campus provide a wide range of magazines, periodicals, educational equipment, textbooks and professional books usually not available at regular commercial bookstores. In addition, they offer a wide range of Thai style gifts for friends and visitors.

HUA MAK CAMPUS

St. Philip & Bernard Hall (P Bldg.), Ground Floor

Contact : (66)-2783-2222 ext. 1218

Service Hours : Mon-Fri (8.00 a.m. – 4.30 p.m.)

SUVARNABHUMI CAMPUS

Cathedral of Learning (CL Bldg.), Ground Floor

Contact : (66)-2783-2222 ext. 1218

Service Hours : Mon-Fri (8.00 a.m. – 4.30 p.m.)

www.bookstore.au.edu

CAMPUS MINISTRY, CHAPEL AND RELIGIOUS CENTER

The Campus Ministry is designed for the Catholic community and makes use of a spacious and beautiful Chapel where as the Religious Center is a multi-religion house of prayer, meditation, congregation, preaching, and for soul-searching pursuit of the true source of all knowledge and life. Space is provided for each community applying to establish a house of meditation and prayer.

CHAPEL OF THE ANNUNCIATION, HUAMAK CAMPUS

Assumption Hall (A Bldg.)

- Sunday Mass : 08.30 a.m. (Thai) : 10.00 a.m. (English)

- Daily Mass : Monday to Friday at 5.00 p.m. (English)

Saturday at 5.00 p.m. Anticipated Mass (English)

- Holy Mass on First Saturday of the Month : 9.30 a.m. (English)

Contact: (66)-2783-2222 ext. 1302

SAINT LOUIS MARIE DE MONTFORT CHAPEL, SUVARNABHUMI CAMPUS

(Behide the John Paul Conference XXIII)

- Sunday Mass : 5.00 p.m. (English)

Contact: (66)-2783-2222 ext. 1302





HEALTH SERVICES

Assumption University provides health services on both campuses. Students are responsible for making arrangements for their own health care except in case of emergency. Registered nurses are on duty Monday through Friday from 8.00 a.m. to 4.30 p.m. and are available for emergencies, first aid, and medical counseling.

Students, faculty and staff members with medical problems are encouraged to keep their files active at the Health Center regarding the nature of their problems so that appropriate action can be taken in the event of an emergency.

HUA MAK CAMPUS

- Infirmary Room : (M Bldg. 2nd floor)
Contact : (66)-2783-2222 ext. 3504
Service Hours : Mon – Fri (8.00 a.m. - 4.30 p.m.)

SUARNABHUMI CAMPUS

- Infirmary Room : (Queen of Sheba, 2nd Floor)
Residence Halls
Contact : (66)-2783-2222 ext. 6296
Service Hours : Mon – Fri (8.00 a.m. - 4.30 p.m.)

IT SERVICES

The Network, which spans across the campus, is secure and reliable. The fast Ethernet Links and fiber optic cables allow students to cross geographical links in seconds. Voice and data communication between Hua Mak and Suvarnabhumi Campuses is available all day. The redundant gateways to the internet provide fault tolerance and reliability in case of Network Failures.

Students are not limited to using the Network just from the campus. Students living off campus can dial up to the access server and make equal use of the Network. There are about 720 telephone lines that can be used for dial up connectivity at the speed reaching 56 kbps. The number of telephone lines will soon be increased to 1200.





THE RESIDENCE HALLS

The Three Dormitories: King Solomon, Queen of Sheba & King David

The three 13-story dormitories form a U-shape embracing the basketball grounds and the middle pyramid.

The grounds, with rows of seats all round it, is called the King's court. Named after characters in the Old Testament, the salubrious dorms have all modern facilities and an underground car park. The safety measures to protect against fire include smoke detectors, sprinklers, fire escapes and emergency lighting. They are located in a windy area with plenty of sun and fresh air. They are on the western side of the campus so in the evening, one sees sunset rays suffuse the colorful flags on the Boulevard des Nations, which connects the residence halls to the front of the Cathedral of Learning.

King Solomon Hall

In the Old Testament, King Solomon inherited the kingdom from his father, King David. He built a temple dedicated to the God of the Israelites, which transformed Jerusalem into an important center during his time. But King Solomon here is a dormitory for male students. It has 505 rooms with an interior and facilities akin to a standard hotel, designed for quiet rest and study. Each room has a cable TV set, a small refrigerator, a direct line telephone and a pair of connections for computer Internet access. It faces the Queen of Sheba Dormitory.

Queen of Sheba Hall

The Queen of Sheba went to Jerusalem after she heard of Solomon's fame, through the name of the Lord. Their legendary love not only had a deep influence on Jerusalem, but on numerous cultures. The Queen of Sheba dormitory is akin to that of King Solomon in the number of rooms, its exterior and interior, but it is for female students. There is a nursing room and study room on the second floor. Around both dormitories are outdoor sports grounds. Together, the twin halls stand as a testimony of love and hold young men and women bound for a bright future.

King David Hall

Long before Jesus Christ was born, King David ruled Israel. He was a valiant soldier, a musician and the man who defeated Goliath. King David is a hotel for visitors with 266 rooms in the same style as the other two dormitories. The back terrace of every room overlooks a wide green field. It is quiet at daytime and in the night. Only at King David are a mini-mart, a laundry shop and an ATM. An ABAC Dummy Perpetual Fund and a Student Affairs Fund to give financial support for youth activities and needy students in rural areas created the mini-mart or "U-Mate" convenient store. The total surplus generated by the store will be contributed to the Fund.

Contact Information:

Suvarnabhumi Campus, Service Hours: Mon-Sat (08.00 a.m. – 05.00 p.m.)

Location : 2nd Floor, King David,

Tel : (66) 2783-2222 ext. 2450, 2460, 2470



AU MUSEUM

The 1st - 3rd floors of the bell-cum-clock tower house a museum. One of the university's valuables kept there is a golden crown used in the Crowning Ceremony of the mother of Christ at the Seat of Wisdom every 15 August, which is Assumption Day. The clock ticks every fifteen minutes and every hour the bell rings a song. It is so designed to ring more than 200 songs. The base of the tower is an enormous flight of steps edolent of the Victor Emmanuel Monument in Rome

THE CENTER FOR SPORTS AND PHYSICAL FITNESS (CSPF)

CSPF is responsible for encouraging all members of the AU community to access our sport facilities and use the equipments for physical development. Sports Facilities at Suvarnbhumi campus include swimming pools, gymnasium and outdoor; and fitness gym at Hua Mak campus. We have qualified management team who provide professional services to students with various sport lessons, trainings, and coaching for athletes. CSPF also organizes and participates in several activities annually such as Thailand University Games, intramural and intervarsity competitions, sport team development and university athlete program.

SERVICE/ACTIVITY

- Sport Facilities & Equipment Service
- Sport Activities & Exercises for Health
- Sport Facilities Management
- Sport Events Advising
- Sport Team Development

Location: Gymnasium
Contact Number: (66)-2783-2222 ext. 7977, 7979
<http://www.sportsfocus.au.edu/>





ADMISSIONS AND TUITION FEES UNDERGRADUATE PROGRAMS

WHO CAN APPLY

1. Applicants with any of the following qualifications are eligible to apply :
 - 1.1) High School Transcript and Graduation Diploma
 - 1.2) I.G.C.S.E./G.C.S.E./G.C.E. "O" level graduation diploma then at least 5 subjects and GCE 'A' Level or GCE 'AS' Level at least 3 subjects, 8 subjects in total with grade no less than "C" Cannot be repeated in the same level.
 - 1.3) GED Transcript and Diploma then at least 4 subjects with scores no less than 145, total scores no less than 580.
 - 1.4) IB certificate at least 5 subjects with grades no less than 4.
 - 1.5) Certificate of Education and statement of results, which are issued by the Australian Qualifications Framework for the applicants who have graduated from Australia.
 - 1.6) Other equivalent certificates or diploma, as authorized by the Ministry of Education.



Remark : If your diploma and transcript in a language other than English must be translated to English and certified by their own government's Ministry of Education, Foreign Ministry, or Embassy or issued in English by their graduated school confirming that graduates of these programs are eligible to apply to regular full-time programs worldwide.

2. Applicants must be free from infectious diseases or other handicaps that can hinder their study.
3. Applicants must be able to bear all expenses related to their study.
4. Applicants must have good manners and testify to the university that they will be attentive, make fullest use of their capability in their study, and strictly conform to the university's rules and regulations.

If found lacking in any of the conditions listed above, the applicant will have his or her admission declined, or his or her student's status nullified immediately

ADMISSION FOR NON-THAI STUDENTS

Acceptance and Visas

Accepted non-Thai applicants will be provided further information once their applications are received and format acceptance letters will be sent to be used mainly to obtain Non- Immigrant Visas from the Royal Thai Embassy or Consulate nearest to their home. The university arranges extend visa for full- Time students ("Full time" means they are taking 12 credits or more per semester.)

Tourist visa is not acceptable. Entering Thailand without the proper visa necessitates exit and reentry.



HOW TO APPLY

Assumption University offers three methods of application to prospective students:

1. Walk-In application:

On arrival at Assumption University (any campuses) students must

- Prepare application documents
- Contact the Admission Center at any campus to submit the documents.
- Purchase the application form at the AU Bookstore (THB 500)
- Fill in the application form and submit at the Admission Center.
- Receive the Student ID and Placement Test appointment.

2. Online application :

- Access to **www.admissions.au.edu**
- Select **Apply Now** and fill in the online application form thoroughly.
- Attach all required documents and click submit and wait for the reply email from the Admission Center.
- Follow the instructions from the Admission Staff such as paying the application fee or signing additional documents, etc.
- Receive the Student ID and Placement Test appointment.

3. Email application:

To apply via email, the applicant must scan all required admission documents mentioned above at **abac@au.edu**

After assessment, the applicant will be informed via email the status of his application. If the documents emailed are incomplete or are not in order with the regulations as specified by with the Ministry of Education, the applicant will be asked to send supplemental document.

International students applying from abroad whose applications must transfer or send a bank draft to Assumption University as an operations fee. This fee includes service fee, issuing documents, airport pick up fee (This is not refundable).

Upon the receipt of the transfer receipt or draft along with other required documents, the university will issue the applicant an Acceptance Letter, which will facilitate the issuance of non-immigrant Thai visa with a stay permit of 90 days. Applicants must produce the acceptance letter to the Royal Thai Consulate in their home country to obtain a student visa and comply with the expected date of arrival stipulated in the Acceptance Letter.

For more information

Tel. (+66) 2 783 2323
Email. abac@au.edu



Documents Required

(FRESHMEN)

The document required for submission prior to being admitted

For student from Thai School

1. High school graduates completing M.6 (Transcript and Diploma)
2. One copy of Identification Card and House Registration.
3. One 3x4 cm. photo.
4. A copy of a name/surname change certificate if applicable.

For student from International School

1. One copy of High School Certificate or Diploma or any other equivalent qualification as authorized by the respective country's Ministry of Education or other assigned government agency, which must be translated to English, if issued in any other language and be confirmed by their own government's appropriate Ministry or Embassy or issued in English by the school that issued the graduation record, diploma, or transcript.
2. One copy of High School Transcripts (Translated to English and get certified by their own Embassy or issued in English by their high school or equivalent graduated school.
3. Copy of passport for foreign applicants and one copy of Identification Card and House Registration for Thai students.
4. One photo (3 X 4 cm.)
5. A copy of a name/surname change certificate, if applicable, issued by appropriate authority in English.

For Transfer Students

1. Should have at least a GPA of 2.00 out of 4.00 scale.
2. Diplomas of any sort do not qualify.
3. The institution must have a standard 4-year degree program.
4. The course was completed at an institution accredited by the Civil Service Commission;
5. The course content is equivalent to that specified in the University's curriculum;
6. The course must have been taken within 5 years from the time of application;

Only a course with an earned grade of 'C' or higher in a general education course or an earned grade of 'B' or higher in a professional core course will be considered as transfer credit depending on the dean of faculty final approval;

Transferred credits are not allowed to be more than half of the total credits of the desired program. In accordance with the Higher Education, Science, Research and Innovation's regulations.

You can apply to transfer credit by completing the Transfer form and attaching official transcript and course description in English.

The transfer fee will be charged based on actual credit rate (@ 1 credit)

Remark: Process at least 3 weeks after completed documents and Admission officer will confirm with you via email or mobile phone.

The Dean's judgment is final and all documents to the university will not be returned to the student.





Placement Tests and Interviews

All Applicants must take placement tests in English and /or Mathematics on the application date

1. Applicants must have graduated, or to receive graduate status from their high school, successfully completed Grade 12 or other qualifications stated above.
2. Take English proficiency-level test on the application date.
3. Optional Test Scores
 - TOEFL score of 60 (IBT) / 500 (PBT) or above with a validity of 2 years.
 - IELTS score of 5.0 and above in overall bands with a validity of 2 years.
 - SAT 1 (Mathematics) score of 500 or above with validity of 2 years.
 - SAT 1 (Reading and Writing) score of 600 or above with a validity of 2 years.

Remark: The University will consider the applications with a TOEFL score of 60 (IBT) and above or an IELTS of 5.0 or above to be exempted from the English Placement Test and English Intensive Course(s).

SAT 1 (Mathematics) score of 500 or above are exempted from the Mathematics Placement Test and Mathematics Intensive course or Pre-Calculus. SAT 1 (Reading and Writing) score of 600 or above are exempted from English Placement Test and Intensive English Course.

Kindly write the score in the application form you have earned for admission and attach copies of the official score (original required at the time of registration).

Martin de Tours School of Management and Economics

The following documentations are required for an application to be considered:

- Take English and Mathematic Proficiency-level test.

Majoring in Design and Digital Innovation (DDI)

- Take English and Mathematic Proficiency-level test.
 - Applicants who have IELTS score 5.5 or above are exempted from the English Placement Test.
 - Applicants who have TOEFL (iBT) score 70 or above are exempted from the English Placement Test.
 - Applicants who have SAT (Reading and Writing) score 550 or above are exempted from the English Placement Test.
 - Applicants who have SAT (Mathematics) score 500 or above are exempted from the Mathematics Placement Test.
- Applicants must submit a required portfolio with related credential.
- Applicants must pass an interview conducted by the faculty.

Majoring in Business Economics

- Take English and Mathematic Proficiency-level test.
- Achieved a cumulative grade point average of 2.85 or higher in mathematics

Theodore Maria School of Art

Requirements for passing the placement tests of Assumption University:

- Take English and Mathematic Proficiency-level test.

Albert Laurence School of Communication Arts

Requirements for passing the placement tests of Assumption University:

- Take English and Mathematic Proficiency-level test.

Majoring in Creative Commercial Communication (CCC)

- Pass aptitude test and interview conducted by the faculty.

Majoring in Creative Communication Design (CCD)

- Applicants must submit a required portfolio about artwork, design, or artwork related to the department.
- All applicants who pass the final interview session must take intensive drawing course about 10 days before the semester begins.

Majoring in Imagineer Media and Entrepreneurship (IME)

Optional score test:

- Applicants who have IELTS score 5.5 or above are exempted from the English Placement Test.
- Applicants who have TOEFL (iBT) score 70 or above are exempted from the English Placement Test.
- Applicants who have SAT (Reading and Writing) score 550 or above are exempted from the English Placement Test.
- Applicants who have SAT (Mathematics) score 500 or above are exempted from the Mathematics Placement Test.
- Applicants must submit a required portfolio with related credential.
- Applicants must pass an interview conducted by the faculty.

Montfort del Rosario School of Architecture and Design

Requirements for passing the placement tests of Assumption University:

- Take English and Mathematic Proficiency-level test.

Theophane Venard School of Biotechnology

Requirements for passing the placement tests of Assumption University:

- Take English and Mathematic Proficiency-level test.

Thomas Aquinas School of Law

Requirements for passing the placement tests of Assumption University:

- Take English and Mathematic Proficiency-level test.

Louis Nobiron School of Music

Requirements for passing the placement tests of Assumption University:

- Take English and Mathematic Proficiency-level test.
- Applicants must pass an interview conducted by the faculty.

Vincent Mary School of Engineering, Science and Technology

Requirements for passing the placement tests of Assumption University:

- Take an English Proficiency-level test.
- Mathematics For Engineering and Physics For Engineering Placement test.
- Applicants who have SAT (Mathematics) score of 550 or above or SAT Level 2 (Mathematics) score of 500 or above are exempted from the Mathematics Placement Test.
- Applicants who have SAT(Physics) score of 550 or above are exempted from the Physics Placement Test.

Aeronautics Engineering (Concentration Commercial Pilot (CPL))

- Applicants must not have a physical disability and are hearing.
- Male applicants must have the height of no less than 165 cm while female applicants with the height of no less than 160 cm.
- Applicants must undergo the physical and psychological tests (Class 1 Medical Assessment) conducted by Bangkok Hospital or Samitivej Hospital or Royal Thai Air Force.
- Faculty will follow the process of appointment for medical class 1 examination date and time with the standard examination center.

**Students can contact Faculty of Engineering to set up appointment with hospital to have the required tests conducted.

Aeronautical Engineering (Concentration Aircraft Maintenance Engineering (AME))

- Applicants must not have a physical disability and are hearing.

Bernadette de Lourdes School of Nursing Science

Requirements for passing the placement tests of Assumption University:

- Take English and Mathematic Proficiency-level Test.
- Minimum age is 17 (no upper limit)
- Obtain M.6 Certificate (grade 12) or equivalent qualification in both science and nonscience majors.
- Obtain bachelor's degree (or equivalent) in any other fields.
- Have clear criminal record; no bad conduct or problem behavior which will affect the reputation of nursing profession.
- Be physically and mentally healthy (Medical report including chest X-ray, hepatitis B, Anti-HBs, Color Blindness and Mental health result certified by the physician from the hospitals; has no severe illness, contagious diseases, or deformity which will be the obstacle to the study).
- Pass the examination and interview process of the Bernadette de Lourdes School of Nursing Science.



ACADEMIC INFORMATION



ACADEMIC SYSTEM

Assumption University has adopted the semester system. An academic year is divided into two semesters and a summer session. A semester lasts for approximately sixteen weeks.

- First Semester : begins in June and ends in October.
- Second Semester : begins in November and ends in March.
- Summer Session : begins in April and ends in May (optional).

One credit hour requires a minimum of 15 hours of class attendance. A subject of 3 credit hours will require at least 45 hours in class. To qualify for the final examination in any subject, each student must have at least 80% of class attendance. In some exceptional cases, at the discretion of the Lecturer and/or the Dean of the Faculty concerned, this requirement may be waived.

NORMAL COURSE LOAD

A student's course load may vary from semester to semester. The minimum for all full-time students is four courses (12 credit hours) per semester. The maximum course load is six courses (18 credit hours) per semester. To enroll in more than six courses, written permission must be obtained from:

- The chairperson of the department concerned (for a graduating student, or junior and senior students with a cumulative G.P.A. of at least 3.25).
- In all other cases, the Dean of the Faculty concerned must be consulted.

ATTENDANCE

Students are required to attend all classes regularly. To qualify to take a final examination for any subject, a minimum of 80% class attendance is mandatory. There are no authorized cuts from classes. Irregular attendance may result in exclusion from classes. Any student who find that he/she can no longer attend a class must officially withdraw in writing through the Office of the Registrar. Failure to withdraw officially may result in a grade of "F" for the course. In case of unavoidable absence, such as subpoena requirements, illness or death of a member of the family, all work missed must be satisfactorily made up and it is the responsibility of the student to arrange for this.

WITHDRAWAL

Students may withdraw (drop) officially from a course, or all courses during the first two weeks without any penalty. Thereafter, until the final day of withdrawals as indicated in the University calendar, students will receive "W" grades. An official withdrawal must be carried out in person at the Office of the Registrar by the student himself/herself (not by someone else on his/her behalf). Failure to withdraw officially will result in a "WF" grade.



GRADING SYSTEM

Letter grades are used to show the academic standing of all students with the following meanings and values.

.....	MEANING	VALUE
A	Excellent	4.00
A-	Almost Excellent	3.75
B+	Very Good	3.25
B	Good	3.00
B-	Fairly Good	2.75
C+	Fair	2.25
C	Satisfactory	2.00
C-	Minimum Satisfactory	1.75
D	Poor	1.00
F	Failure	0.00
R	Course repeated later*	-
S	Satisfactory	-
U	Unsatisfactory	-
W	Withdrawal with Permission	-
WF	Withdrawal with F**	0.00
AUD	Audit and non-credit	-
I	Incomplete***	-
WP (IP)	Work in progress	-
NR	No report	-
TR	Transferred Credits	-
CS	Credits from Standardized Test	-
CE	Credits from Examination	-
CT	Credits from Training	-
CP	Credits from Portfolio	-

Student grades are computed at the end of each semester, and may include:

- Quizzes
- Term papers
- Book reports
- Assignments
- Recitation
- Class participation
- Attendance
- Midterm and final examination

These requirements may vary with each course.

ACADEMIC ACTION

Academic action can be both favorable and disciplinary. When a student is performing well, all action on him/her in the academic area is said to be favorable to the student. For example, when a student obtains a high GPA he/she is put on the academic List of Honors; when he/she consistently achieves very high marks, he/she is given higher honors. However, if his/her achievement is below standard, disciplinary action may be taken against him/her.

PROBATION

Students who obtain a cumulative GPA of less than 2.00 (1.50-1.99) but above the limits set for dismissal from the University will be put on probation, except during the first semester of the freshman year.

*If an undergraduate student repeats a course in which an "F" was earned during an earlier attempt the better grade will be counted in computing the cumulative GPA. The previous grade of the repeated course will be replaced by "R" and is excluded from GPA calculation.

**withdrawal from course after time limit.

***student fails to complete his/her assignments within the time limit or is absent from the examination with approval from the University due to exceptional reasons.



DISMISSAL

Undergraduate students will be dismissed from the University under the following conditions:

- obtaining a cumulative GPA of less than 1.50 at the end of any semester except the first semester of the freshman year;
- obtaining a cumulative GPA of less than 1.75 for two consecutive semesters except the first semester of the freshman year;
- obtaining a cumulative GPA of less than 2.00 for four consecutive semesters except for the first semester of the freshman year. However, in certain cases, the President, in consideration of a student's potential to improve his/her academic performance and eventually graduate, may grant special permission for the student to carry on his/her studies at the University on probation condition.

HONORS SYSTEM

The University, wishing to provide recognition to exceptional students, has established an Honors System. Undergraduate students are given awards for achievement measurable in grades beginning with semester grades and ending with cumulative grades until graduation.

GRADUATION WITH HONORS

Undergraduate students maintaining a high scholastic average are eligible for graduation with the following Honors:

Summa Cum Laude	Cumulative	GPA	3.80-4.00
Magna Cum Laude	Cumulative	GPA	3.50-3.79
Cum Laude	Cumulative	GPA	3.25-3.49

REQUIREMENTS FOR GRADUATION WITH HONORS

- Have fulfilled all the requirements for graduation within 4 years (5 years for Architecture).
- Have not been placed on probation in any condition.
- Have not received a grade lower than "C" for any course and / or U for non credit courses.
- Transfer students must have taken all the third and fourth year courses (or 72 credits) at Assumption University.
- Students who have graduated with a cumulative GPA of 3.25 or higher, regardless of a grade lower than "C" or "U" for non credit courses, or those who completed all requirements within 5 years of study for all 4-year undergraduate programs; and within 6 years for the Architecture program, are entitled to obtaining an **Award of Academic Excellence**.

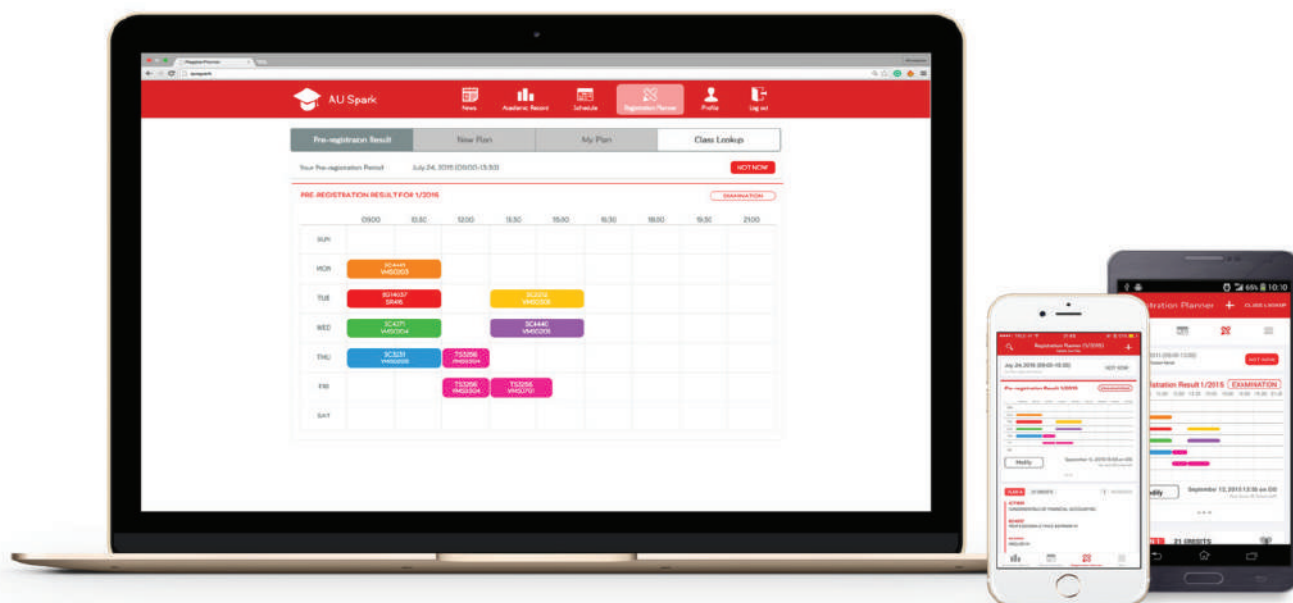
SPECIAL HONORS AND AWARDS

Students are given distinctions for their performance for a semester or an academic year as listed below:

- University Council Certificate of Honors for those who obtain a 4.00 GPA for any academic year;
- President's Certificate of Honors for students who fall within the GPA range of 3.50-3.99 for any academic year;
- Academic List of Honors for students who obtain a GPA of 3.25 or above at the end of each semester.

Condition:

- 15 credits per semester is required except for final semester.
- Grades must be "C" or higher.



Academic Information for Student



Academic Information for Student

- Personal Information
- Academic Record / Class / Exam Schedule
- Registration Planner
- General Information
- Notification Service
- Unofficial Transcript
- Curriculum information
- Advising Information



AU SPARK

www.ausepark.au.edu

Registration & Payment System for Student

AU SPARK is provided for Assumption University's students. It allows students to access the academic information, class schedule and exam schedule. AU SPARK also provides both registration & payment feature.



STUDENT AFFAIRS

Being committed to the educational process of student character formation, AU Student Affairs exists for the well-being of students' lives and out of classroom learning. Wide ranges of services and interventions aiming at students' growth and satisfaction are provided on the basis of individual differences and preferences.

More information, please find E-Student Information in <http://www.sa.au.edu>

FINANCIAL ASSISTANCE

The University provides several types of financial aid programs to cover the difficulties and needs of students. Financial Assistance Division provides the loan for students who are qualified, eligible and approved by the university and others. The unit assists students who are in need of financial aids which include The Student Loan Fund (กยศ.) for education and to facilitate and ensure that students will obtain the needed Student Loan Fund and other service. Financial Assistance Division

Financial Assistance Division
Location: 14th floor of CL building

CAREER DEVELOPMENT AND COUNSELING

Undergraduate students seek career guidance, learning skills assistance and mental help desk at the Center for Career Development and Counseling. We have trained and experienced counselors to support your needs all year round.

Student can make an appointment through the QR code.

There are several activities and events such as career week, career training and exposure, internship, job placement, English for All program and freshmen induction.

Center for Career Development & Counseling
Location: 13th floor of CL building



STUDENT ACTIVITY AND CLUBS

Students can explore their strengths and potentialities through our Student Leadership Development Program (SLDP). Center for Student Leadership & Experiential Learning provides opportunities for students to gain out of classroom learning experiences that will prepare them for human interactions, and enable them to develop time management skills, leadership skills, critical thinking and civil consciousness. Students are guided to learn how to achieve their goals in a practical way and they can obtain a letter of recommendation for job application upon request. The Assumption University Student Organization (AUSO) is a student body consisting of more than 50 student clubs and international student communities.

Center for Student Leadership & Experiential Learning
Location: King David Residence Hall.





SPORTS FOR HEALTH AND COMPETITIONS

Assumption University promotes a rational mind in a healthy body as the Latin phrase says “mens sana in corpore sano.” AU community enjoys the sports facilities and services under the supervision of Center for Sports and Physical Fitness. The unit is situated in front of a 25-meter swimming pool in Suvarnabhumi Campus. Sports for health and sports for competition are our main services. Our staff for the Sports Team Development assist AU athletes to achieve their goal in a practical way, with quality facilities, sport science and scholarship athletes support. The Center also hosts an annual swimming championship accredited by the Thailand Amateur Swimming Association.

Center for Sports and Physical Fitness
Location: Gymnasium



STUDENT WELFARE & STUDENT RIGHTS

For residential life, Center for Student Personality and Campus Life cooperates with the university dormitory and the private dormitories to create supportive campus environment that students can live well with mutual understanding. The unit ensures the safety environment for students by managing taxi services as well as coordinating with local police and provincial authority as necessary. For student services, the center provides health insurances, lost & found, letter of recommendation, R.O.T.C. monitoring and processing military related documents for Thai male students.

Center for Student Personality and Campus Life
Location: SM 106

THAI ART AND CULTURES

Learning Thai language, cuisine, arts and crafts is a unique opportunity for students to explore while studying at Assumption University of Thailand. The campus is famous for the blend of western and Thai architectures reflecting the international community. Students enjoy the celebration of Thai festivals, Buddhist ceremony, Catholic feasts and observe the international days of our international community.

Office of Thai Art and Culture
Location: 14th floor of CL building



CENTER/DIVISION	SERVICE	ACTIVITY LOCATION & CONTACT NUMBER	WEBSITE
Financial Assistance Division (FD)	- Financial Assistance - Government Loan Service	14th fl., CL Bld. Ext. 2148, 2277 E-mail: fd@au.edu	www.sa.au.edu
Center for Career Development and Counseling (CCDC)	- Job Placement - Career Training and Exposure - Counseling, Advising and Testing on Career and Learning - Student Mental Health and Psychological Counseling - Freshmen Induction Program - Employer and Alumni Relations - Parents Relations	13th Fl., CL Bld. Tel. Ext. 2131-2 E-mail: sa.ccdc@au.edu	www.sa.au.edu www.facebook.com/ abaccdc
Center for Student Leadership and Experiential Learning (CSLEL)	- Advising, Monitoring and Learning assessment for Student Organization and Student Activity Units - Student Leader Development Programs - Promoting Student Experiential Learning and University Engagement - Student Activity Information - Student Activity Facilities and Service	King David Bld. Ext.7292,7293	www.sa.au.edu www.activity4you.au.edu/
Center for Sports and Physical Fitness (CSPF)	- Sport Team Management - Sport Activities and Physical Exercises for Health - Sport Events Management - Sport Facilities Management	Gymnasium Bld. Ext.7977	www.sa.au.edu
Center for Student Personality and Campus Life (CSPCL)	- Student Rights and Disciplines - Student Safety and Welfare - Residential Life - R.O.T.C. and Military Services	Room 106, SM Bld. Ext. 2142, 2230, 2235,	www.sa.au.edu
Office of Thai Art and Culture	- Thai Arts & Cultures Engagement of Stakeholders & AU Community - Promoting Thai Arts & Culture into Curriculum and Extra Curricular Activities - Disseminating Thai values to AU Community	14 fl., CL Bld. Ext. 2240, 2241	www.sa.au.edu





STUDENT UNIFORM

I. Student Uniform is mandatory for official and formal occasions as follows:

1. In the examination rooms.
2. In Business & Professional Ethics Seminar (BG 1403)
3. Formal occasions e.g. Wai Kru day, Orientation day , Last Orientation and Commencement day.
4. In all classrooms assigned by the faculties.

Student Uniform for male students:

1. Plain white, short or long sleeve shirt. Sleeves may not be turned up. Shirt must be tucked into trousers. A university necktie must be worn properly.
2. Black trousers (slacks).
3. Black or dark brown belt with university buckle.
4. Plain black leather shoes.

Student Uniform for female students:

1. Plain white , short sleeve blouse. Blouse should fit properly. University buttons are attached and the university pin is worn on the left side of the blouse . Blouse must be tucked into skirt.
2. Black straight skirt at knee length.
3. Black or dark brown belt with university buckle.
4. Plain black leather closed shoes.



II. POLITE DRESS Polite Dress is allowed on the following occasions:

1. In the regular classrooms
2. Whenever entering the campus vicinity , except university dormitories and sports complex at Suvarnabhumi Campus.

Polite Dress for male students:

1. White or light colored short of long sleeve shirt. Shirt must be tucked into trousers neatly.
2. Plain black, grey, blue or brown slacks
3. Dark colored or white closed shoes or sport shoes(polite color).

Polite Dress for female students:

1. White or light colored short of long sleeve blouse. Blouse must be tucked into skirt neatly.
2. Black or blue knee length skirt, polite style.
3. Dark colored closed shoes, sling back court shoes, or sport shoes (polite color).

III. CASUAL DRESS

Casual dress is allowed during summer session or university holiday. However when it is scheduled as midterm, final exam or test; student is required to wear uniform.

Casual dress for male students:

1. Shirt, Polo shirt, Collar shirt or T-shirt (not singlet)
2. Long pants not ragged jeans
3. Closed shoes, strap shoes or sport shoes

Casual for female students:

1. Blouse exclude singlet, single strap, strapless, sleeveless or over fitting blous
2. Long pants or skirt (not too short)
3. Closed shoes, strap shoes or sport shoes





Student Uniform for female students:

1. Plain white, short sleeve blouse.
Blouse should fit properly.
University buttons are attached and the university pin is worn on the left side of the blouse.
Blouse must be tucked into skirt.
2. Black straight skirt at knee length.
3. Black or dark brown belt with university buckle
4. Black closed shoes



Student Uniform for male students:

1. Plain white, short or long sleeve shirt. Sleeves may not be turned up. Shirt must be tucked into trousers. A university necktie must be worn properly.
2. Black trousers (Slack)
3. Black or dark brown belt with university buckle
4. Black leather shoes.

Remark : Students who are required to wear certain attire considered as a part of religious culture or cultural dress may seek approval from the Office of Student Affairs.



Office of International Affairs

At Assumption University, we are committed to nurturing open-minded, creative graduates who lead with integrity and communicate effectively in today's globalized world. Our diverse and vibrant community, consisting of students and faculty from around the world, creates a learning environment where mutual respect, collaboration, and cultural exchange thrive.

The Office of International Affairs (OIA) serves as a gateway to global education, fostering international collaboration and cross-cultural exchange. We connect students with opportunities that enhance academic excellence, global competence, and cultural understanding, preparing them to succeed in an interconnected and diverse world. OIA is dedicated to building strong partnerships in academic exchange and fostering collaboration for shared success and growth.

Through the AU Study Abroad Centre, we facilitate student mobility programs for both inbound international students and outbound Assumption University students. These programs promote academic exchanges, cultural immersion, and collaboration with partner universities worldwide, enriching the educational experience for all.



AU Study Abroad

Studying abroad is a transformative, life-changing experience that opens doors to new cultures, perspectives, and opportunities. Whether you're looking to deepen your academic knowledge or advance your career, our mobility **programs** are designed to suit your unique goals and background. Explore the options and find the path that aligns with your aspirations.

Study Abroad Programs

- **Double Degree**

In the **Double Degree** program, you'll spend 2-3 years studying at **Assumption University (AU)** and 1-2 years at a partner university abroad. Upon completion, you'll receive **two degrees**—one from AU and one from the host university—enhancing your qualifications on a global level.

- **Joint Degree**

The **Joint Degree** program allows you to take core courses at **AU** and specialized courses at a partner university. Upon completing your studies, you'll receive **one degree** awarded by the partner university, giving you valuable international expertise.

- **Exchange Program**

Through the **Exchange Program**, you can study abroad for **one semester** (about four months) at a partner institution. During your time abroad, you'll experience a new culture and gain academic insights before returning to **AU** to complete your degree.

Countries: Australia, Austria, Denmark, France, Germany, Hong Kong, Japan, South Korea, Macao, Netherlands, Norway, Switzerland, Taiwan, UK, USA

For the full details of the destinations, please visit: <https://oia.au.edu/>

If you have any questions, feel free to contact us via email: oia@au.edu or

message us on Instagram: [@au_study_abroad](https://www.instagram.com/au_study_abroad)

Office of International Affairs & AU Study Abroad Hua Mak Campus

St. Louis Hall (L Building) Ground Floor

592/3 Soi Ramkhamhaeng 24, Hua Mak, Bang Kapi, Bangkok, Thailand 10240

Tel. (02) 783-2222 Ext. 3728-9

Working hours: Mon - Fri: 8:00 a.m - 4:30 p.m

Suvarnabhumi Campus

St. Raphael's Hall (SR Building) SR 101 Room (AU Study Abroad)

88 Moo 8 Bang Na-Trad Rd. Km.26, Bang Sao Thong, Samut Prakan, Thailand 10540

Tel. (02) 783-2222 Ext. 2714

Working hours: Mon - Fri: 8:00 a.m - 4:30 p.m





CATHEDRAL

IT HAS ALWAYS BEEN MY DREAM TO BUILD A CAMPUS IN AND AROUND IT AN ATMOSPHERE THAT IS A MIND, INTELLECTUALLY STIMULATING AND IN OTHER WORDS, AN ATMOSPHERE CONDENSED IN A COMPLETE MAN/WOMAN, A NEW MAN/WOMAN WITH A NEW HUMANISM.

TO THIS END, THE IDEA OF THE "UNIVERSITY" CONCEPT OF THE CAMPUS WHEREIN THOUGHT AND NATURE BACK TO YOUNG MEN AND WOMEN TO SIT IN THE GREAT SILENCE OF THE CATHEDRAL, CONTEMPLATING HOW, IN PEACEFUL SILENCE, RADIATING WARMTH THAT GIVES LIFE TO THE CAMPUS.

IN THIS ENVIRONMENT, THE INQUIRY INTO THE NATURE OF THEIR PLAY AND THEIR FULFILLMENT, KNOWLEDGE AND WISDOM.



MARTIN DE TOURS SCHOOL OF MANAGEMENT AND ECONOMICS



OF LEARNING

BUILD A CATHEDRAL OF LEARNING AND TO CREATE
A HEALTHY AND REFRESHING TO THE ACTIVE
SPIRITUALLY FOSTERING AND ENRICHING;
PROMOTE TO LEARNING AND BECOMING.....A
MAN FOR A NEW MILLENNIUM-SOMEONE IMBUE

UNIVERSITY IN A PARK" HAS BECOME A PROMINENT
THOUSANDS OF TREES ARE GROWN, TO BRING
SO THAT THEY WILL BE ABLE TO WALK AND
LANDSCAPE, WITH TRANQUILITY OF MIND,
ENDOUR, THE SUN RISES AND SETS WHILE
D ALL THINGS.

SITIVE AND ENQUIRING MINDS WILL HAVE
ALL LEARNERS WILL STEADILY GROW IN



DESIGN AND DIGITAL INNOVATION (DDI)

The AU Advanced & Innovative Business Administration Program: DDI: "Design & Digital Innovation" specialized to equipping graduates towards becoming successful entrepreneurs in digital age. Learn from leading world-class successful businessmen, i.e. essentially in 4 vital areas: Business, Technology & Innovation, Design Tactics, Individual & Organizational Development; with added foreign language proficiency and internship & professional training projects in various industries, enabling students to practically initiate their own businesses.

CREATING ENTREPRENEURS FOR THE DIGITAL ERA

Bachelor of Business Administration Program Design and Digital Innovation (B.B.A. Design & Digital Innovation) is a program aimed to create entrepreneurs for the digital age, who would succeed in building their business and innovation in the future. Students would learn from successful global business owners. Block Teaching model is used allowing students to gain intensive knowledge of each subject. Thus, learning is better than other forms of learning.

FOCUS ON PRACTICALITY

(Sandbox Model)

This program focuses on students' practice. Apart from studying in the classroom, students gain experience from Mentors, business experts in the digital age from many famous companies. Students would learn through case study, group discussion, practical workshop, and project assignment-simulation. In addition, students will receive funding from the Assumption University to create their own businesses.

Therefore, the Bachelor of Business Administration program Design and Digital Innovation Program, has the goal for nurturing students, who have the ambition to become entrepreneurs. They would gain chances to fully enter business trial by learning to fall before going out to face the world in the digital age. It is like a playground for students before they grow into successful entrepreneurs in the future.





THREE-YEAR INTENSIVE CURRICULA

Our 3-year intensive program offers fun, modern style of learning. Students can experiment and start a Sandbox Business in a space that allows students with dreams of becoming a successful entrepreneur to set up new businesses. The purpose is to test ideas, technologies, and innovations invented in the businesses. A Sandbox Business is like a children playground. Sand is poured so that children do not get hurt when they fall. In starting a business, we encourage students not to be afraid of failure. Even if they fail, they still have business coaches and program mechanisms that support and guide students to further progress because they can have an opportunity to learn from failure.

LEARN WHAT YOU NEED, FOCUS ON PRACTICALITY

Design & Digital Innovation Program utilizes a Block Teaching mode. This takes less time than other programs, which allows students to gain knowledge and focus on each course. So, this learning method is better than others. In addition, it's suitable for students. They can continuously practice with real business case, apart from learning in classroom. Students can integrate and apply their knowledge, skills, and experience for work in the future.

LEARN FROM BUSINESS PROFESSIONALS FROM LEADING ORGANIZATION

Students can learn from experienced businessmen, who would be their coaches. They include Dr.Boonkiat Chokwattana and Dr.Surat Wongrattanapatsorn from Sahapat PLC., Dr.Kittinut Tikawan from True Corporation PLC., Dr.Prapon Rattanachaikanon from True Coffee, True Corporation PLC., and Dr.Sangsuk Pittayanukul from Smooth-E, Siam Health Group Co.,Ltd.

CAREERS THAT GRADUATES CAN PURSUE

Bachelor of Business Administration, Digital Design and Innovation Program offers students the opportunities to gain exposure and practical action in various fields of knowledge in order for them to choose and plan running a business. They can be Digital Business Entrepreneurs, Marketing Strategic Planners, Business Consultants, Product Designers, and Application and Software Developers.

THE IMPORTANCE OF SOFT SKILLS IN THE DIGITAL AGE

Soft Skills "a skill that modern entrepreneurs must have. DDI 's student can hear the experiences and ideas from the famous youtuber, alumni from ABAC. Talk about the importance of having soft skills to use in the workplace.



CORE LEARNING

Bachelor of Business Administration Program in Design & Digital Innovation (BBA in Design & Digital Innovation) is an integrated program jointly organized by 5 faculties of Assumption University, which are 1.) Faculty of Business and Economics 2.) Faculty of Science and Technology 3.) Faculty of Communication Arts 4.) Faculty of Architecture and Design 5.) and Faculty of Music to organize learning and train students to be real entrepreneurs. The students in this program will be selected into the house according to the skill and aptitude of the person. The results are evaluated through the Psytech Assessment Tool program, the principles of each house are as follows:



NEGOTIO

NEGOTIO

A home for avid management training, students will have the classes with qualified teachers and special speakers from leading global companies, who are ready to provide knowledge. This is an experience, which cannot be found anywhere else. Students will learn from real experiences. They would have a chance to develop their own business opportunities with a Mentor guiding the path towards a successful digital career. Students would be ready to step into the world of international market competition.

INNOVATIO

Home of technology with new innovations which will change the perspective of students. The goal is to create a broader vision through being well-informed about the world of technology. They would be ready to change their own business to keep pace with the competitive world in the digital age. Students would stay abreast of globalization through application of modern technology for successful business practices.



INNOVATIO



ATELIER

ATELIER

A home for the modern designer, learning in this house provides knowledge of product design and making advertising media for differentiation from the market competitors. The goal is to innovate and create inspiring product designs, including the principles of creative thinking and making of graphic presentations.

SPIRITA

A home that fosters the spirit of students as ethical business entrepreneurs for the environment, society, and life. Students will learn life skills for adapting public communication skills to better express one's identity to stand out and gain acceptance. These are critical factors that support successful business entrepreneurs.



SPIRITA

In addition to the four houses where students in the Bachelor of Business Administration Design and Digital Innovation (B.B.A. Design & Digital Innovation) will be trained in every skill from each home, students are able to customize the courses based on their interests. Students can choose 30 credit courses from more than 800 different faculties. They would also receive a certificate when they study a group of courses that meet the requirements of that particular faculty. The Bachelor of Business Administration program Design and Digital Innovation Program is a course that provides open and free learning experiences focusing on the goal of making students entrepreneurs in the digital age.

FACILITY

Bachelor of Business Administration Program Design and Digital Innovation (B.B.A. Design & Digital Innovation) focuses on providing students with facilities that are conducive to learning, exchanging ideas, and sharing experiences with each other. The program aims to inspire students to become entrepreneurs. The various facilities are specially designed such as Smart Classroom, Digital True Lab, Common Room, Auditorium, and Lecture Room. In addition, students would receive premium care from staff specializing in providing assistance in all areas.

PSYTECH ASSESSMENT TOOL

Find Yourself with the Latest Technology

The Psytech Assessment Tool is an international test used by big companies to recruit personnel. It is considered a tool to assess the aptitude and ability to test the potential of the person. The test is divided into 2 aspects: 1.) Evaluation of attitude and 2.) Evaluation of aptitude. This will help individuals to know their aptitudes or talents, such as an aptitude for critical thinking, creative aptitude, management aptitude, and skills in arts. This enables the company to assess the potential of the people, who came to work filling in the appropriate fields

Develop Hidden Potential

In terms of thought processes, subjects assessed with the Psytech Assessment Tool will assess students' weaknesses or self-imposed flaws that require further training or development, as well as self-motivation. This includes examination of emotional intelligence or leadership thinking process as well.

For the Bachelor of Business Administration program Design and Digital Innovation Program, this is a collaboration with True Corporation Public Company Limited, which encourages students in this course to be able to access this test through the Psytech Assessment Tool. Thus, students can assess themselves knowing their aptitude and hidden potential through quizzes. Thus, students can be aware of themselves from the moment they start attending university. They would know the areas of weakness and strength that they have. This will enable students to develop their strengths even further and improve on their weaknesses. Therefore, they would be best prepared before graduating from university and ready to work in international companies.

COOPERATION NETWORK

Bachelor of Business Administration, Digital Design and Innovation Program has signed the collaboration agreement with well-known national and international companies in various industries, where students can learn from all aspects of these companies. They can learn from business experts as well as collaboration through internships and special instructors, who would coach the students.

INTERNSHIP

True Academy Project

DDI students will have an opportunity to choose to do internship with True under "True Academy Project", which allows students to be educated learning from scholars within 4-5 months. They also will receive the job certification from True. In addition, students will receive the credits, without any wasting of time while still continuing with the curriculum.

The True Academy Project focuses on the real activities, responsibilities, and experiences in real work environments. Students are expected to learn and expend their knowledge in business with provided examples and situations from various business processes. Moreover, students who join this project will receive priority from the company, and a chance to work with the company.



GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Business Administration upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Have to meet the minimum English Proficiency requirement specified in one of the following criteria

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES

To produce graduates who have the characteristics, knowledge and skills as follow:

Characteristics

- (1) Morally sound, committed to acting justly and open to further growth.
- (2) Able to work as a team as well as have leadership qualities.
- (3) Possess interpersonal skills and positive attitude

Knowledge

- (4) Knowledgeable of the principles and theories in the functional areas and able to apply with respect to the Business Administration.



Skills

- (5) Possess analytical and creative thinking skills and practical knowledge to acquire proficiency in business from an interdisciplinary and multi-cultural perspective.
- (6) Able to apply analytical tools and conceptual frameworks logical and critical thinking skills to solve complex business problems and open end challenges.
- (7) Have skills of ideation attitude, communication and presentation skills, IT skills and Entrepreneurial skills.
- (8) Flexible, competent and well-rounded in confronting and solving business problems.



Bachelor of Business Administration Program In Design and Digital Innovation

Curriculum Structure

Total number of credits	120	Credits
A. General Education Courses	25	Credits
General Education Require Course	25	Credits
B. Specialized Courses	86	Credits
Core Courses	24	Credits
Required Courses	32	Credits
Personilized Courses	30	Credits
C. Free Elective Courses	9	Credits

Courses

A. General Education Courses

General Education Required Courses	25	Credits
DDI 2331 Practical Data Science for Entrepreneurs	2	(2-0-4)
DDI 2332 AI for Business	2	(2-0-4)
SRX 1001 English for Effective Communication	3	(2-3-6)
SRX 1002 English for Academic Purposes	3	(2-3-6)
SRX 1003 Integrated English Skills	3	(2-3-6)
SRX 1101 Happiness Advantage	1	(1-0-2)
SRX 1104 Designing Life with Passion	1	(1-0-2)
SRX 1201 Business Etiquettes and Personal/CEO Branding	2	(2-0-4)
SRX 2101 Empathy and Customer Centric	2	(2-0-4)
SRX 2111 Pitching and Storytelling	2	(2-0-4)
SRX 2201 Legal Aspects in Business, IT, and Creative Industry	2	(2-0-4)
SRX 2202 Well-being for Learning and Life	1	(1-0-2)
SRX 2211 Future Skill Forum	1	(1-0-2)

B. Specialized Courses

Core Courses	24	Credits
DDI 0011 Preparation for Design		Non-Credit
DDI 1111 Entrepreneurial Inspiration	1	(1-0-2)
DDI 1112 Digital Mindset and Sustainability	2	(2-0-4)
DDI 1113 Data and Digital Literacy	2	(2-0-4)
DDI 1114 Business Innovation and Design Thinking	2	(2-0-4)
DDI 1211 Design Exploration	2	(2-0-4)
DDI 1212 Photography and Cinematography	2	(2-0-4)
DDI 1322 Application Design and Coding	2	(2-0-4)
DDI 2131 Leadership for a Digital Age	2	(2-0-4)
DDI 2132 Digital Media Analytics	3	(3-0-6)
DDI 2133 Global Strategy and Communication	2	(2-0-4)
DDI 2142 Brand-Driven Innovation	2	(2-0-4)
DDI 2341 Digital Transformation	2	(2-0-4)
SRX 0011 Overview of Entrepreneurship and Innovative Design		Non-Credit
Required Courses	32	Credits
DDI 1115 Digital Consumer Insights	2	(2-0-4)
DDI 1121 Digital Marketing	2	(2-0-4)
DDI 1122 Consumer Research for Strategic Decision Making	2	(2-0-4)
DDI 1123 Global Business and Commercialization	3	(3-0-6)
DDI 1221 Graphic Communication and Presentation	2	(2-0-4)
DDI 1222 Design Thinking for Creatives	2	(2-0-4)
DDI 1311 Tech Startups	3	(3-0-6)
DDI 1312 UI/UX Design in Technology	2	(2-0-4)
DDI 1321 Agile Methods	2	(2-0-4)
DDI 2130 Workshop I		Non-Credit

DDI 2134	Entrepreneurial Finance	2 (2-0-4)
DDI 2140	Workshop II	Non-Credit
DDI 2141	Business Networking	2 (2-0-4)
DDI 2143	Entrepreneurial Accounting	2 (2-0-4)
DDI 2144	Economics for Entrepreneur	2 (2-0-4)
DDI 2231	Design Studio I	2 (2-0-4)
DDI 2241	Design Studio II	2 (2-0-4)
Personalized Courses		30 Credits
Students can take 30 credits from any courses listed below upon completion of the prerequisites (if any).		
Multidisciplinary Skill Elective Track		
DDI 3400 - 3499	Selected Topic in Multidisciplinary Skills	3 (3-0-6)
Business Elective Track		
BBA 1110	Seminar in Business I	1 (1-0-2)
BBA 1111	Business Essential: A Design Thinking Approach	3 (3-0-6)
BBA 1112	Digital Literacy	3 (2-2-5)
BBA 1113	Mathematics for Business	3 (3-0-6)
BBA 1114	Microeconomics	3 (3-0-6)
BBA 1120	Seminar in Business II	1 (1-0-2)
BBA 1121	Marketing in Practice	3 (3-0-6)
BBA 1122	Statistics for Business	3 (3-0-6)
BBA 1123	Management in Dynamic Contexts	3 (3-0-6)
BBA 1124	Macroeconomics	3 (3-0-6)
BBA 1125	Fundamentals of Financial Accounting	3 (3-0-6)
BBA 2110	Seminar in Business III	1 (1-0-2)
BBA 2111	Navigating Global Business Environment	3 (3-0-6)
BBA 2112	Data Analytics Essentials	3 (2-2-5)
BBA 2113	Intercultural Communication and Negotiation	3 (3-0-6)
BBA 2114	Financial Environment and Financial Planning	3 (3-0-6)
BBA 2115	Fundamentals of Managerial Accounting	3 (3-0-6)
BBA 2120	Seminar in Business IV	1 (1-0-2)
BBA 2121	Consumer Behavior and Insights	3 (3-0-6)
BBA 2122	Operations and Supply Chain Management	3 (3-0-6)
BBA 2123	Essential Strategies for Sustainable Business	3 (3-0-6)
BBA 2124	Corporate Financial Management	3 (3-0-6)
BBA 2125	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
BBA 3111	Business Research	3 (3-0-6)
BBA 3410 - 3419	Law for Business	3 (3-0-6)
BBA 3420 - 3429	Health and Wellness for Business	3 (3-0-6)
BBA 3430 - 3439	Biotechnology for Business	3 (3-0-6)
BBA 3440 - 3449	Digital Technology for Business	3 (3-0-6)
BBA 3450 - 3459	Engineering Technology for Business	3 (3-0-6)
BBA 3460 - 3469	Design for Business	3 (3-0-6)
BBA 3470 - 3479	Creative Arts for Business	3 (3-0-6)
BBA 3480 - 3489	Language and Culture for Business	3 (3-0-6)
BBA 4111	Entrepreneurship	3 (3-0-6)
BBA 4401	Business Practicum I	3 (3-0-6)
BBA 4402	Business Practicum II	3 (3-0-6)
BBA 4403	Business Practicum III	3 (3-0-6)
BBA 4404	Business Practicum IV	3 (3-0-6)
BBA 4405	Business Practicum V	3 (3-0-6)

BBA 4406	Business Practicum VI	3 (3-0-6)
BDM 3202	Digital Commerce	3 (2-2-5)
BDM 3207	Systems Analysis and Design	3 (2-2-5)
BDM 3208	Enterprise Resource Planning	3 (2-2-5)
BDM 3303	Data Mining	3 (2-2-5)
BDM 3306	Essential Logic for Data Professionals	3 (2-2-5)
BDM 3405	Database Systems	3 (2-2-5)
BDM 3415	Business Intelligence	3 (2-2-5)
BDM 3486	Professional Seminar in Digital Business Management	1 (1-0-2)
BEC 2310	Calculus	3 (3-0-6)
BEC 2311	Applied Econometrics	3 (3-0-6)
BEC 2410	Economic Reasoning	3 (3-0-6)
BEC 3110	Microeconomics II	3 (3-0-6)
BEC 3111	Game Theory	3 (3-0-6)
BEC 3112	Managerial Economics	3 (3-0-6)
BEC 3113	Industrial Organization	3 (3-0-6)
BEC 3210	Macroeconomics II	3 (3-0-6)
BEC 3311	Time Series Analysis and Forecasting	3 (3-0-6)
BEC 3312	Business Intelligence	3 (3-0-6)
BEC 3314	Cost and Benefit Analysis	3 (3-0-6)
BEC 3410	International Economics	3 (3-0-6)
BFR 2231	Business Strategic Analysis and Sustainable Finance	3 (3-0-6)
BFR 3121	Professional Seminar in Finance and Risk Management	1 (1-0-2)
BFR 3131	Investment Management and Analysis	3 (3-0-6)
BFR 3132	Risk Management and Insurance	3 (3-0-6)
BFR 3133	Financial Reporting and Analysis	3 (3-0-6)
BFR 3231	Investment Strategy and Valuation	3 (3-0-6)
BFR 3232	Financial Modeling and Analysis	3 (3-0-6)
BFR 3241	Financial Risk Management	3 (3-0-6)
BFR 3242	Portfolio Management and Analysis	3 (3-0-6)
BFR 4131	Value Based Management and Financial Decisions	3 (3-0-6)
BFR 4141	Business and Financial Data Analytics	3 (3-0-6)
BFR 4142	Startup Finance and FinTech	3 (3-0-6)
BFR 4143	Personal Wealth Management and Financial Planning	3 (3-0-6)
BGB 3210	Professional Seminar in Global Business Management	1 (1-0-2)
BGB 3211	Diversity and Culture in Global Environment	3 (3-0-6)
BGB 3212	Marketing Strategies for Global Ventures	3 (3-0-6)
BGB 3221	Global Business Strategies	3 (3-0-6)
BGB 3222	Strategic Export-Import Practices and Research	3 (3-0-6)
BGB 4211	Global Supply Chain Management	3 (3-0-6)
BGB 4212	Global Business Feasibility and Risk Management	3 (3-0-6)
BGB 4221	Strategic Decision Making	3 (3-0-6)
BHT 3211	Gateway to Service Industry	3 (3-0-6)
BHT 3212	Food Service Management	3 (3-0-6)
BHT 3213	Talent Management in Hospitality and Tourism	3 (3-0-6)
BHT 3405	Kitchen Operation	3 (3-0-6)
BHT 3421	Front Office and Rooms Management	3 (3-0-6)
BHT 3422	Service Excellence	3 (3-0-6)
BHT 3423	Professional Personality Development in Hospitality and Tourism	3 (3-0-6)
BHT 3424	Restaurant Service	3 (3-0-6)
BHT 4104	Professional Seminar in Hospitality and Tourism Management	1(1-0-2)
BHT 4301	Information Technology in Hospitality and Tourism	3 (3-0-6)
BHT 4302	Operations and Leadership in Hospitality and Tourism	3 (3-0-6)

BHT 4303	Strategic Management in Hospitality and Tourism	3 (3-0-6)
BMK 3212	Digital Marketing and Communications	3 (3-0-6)
BMK 3213	Marketing Analysis and Strategy	3 (3-0-6)
BMK 3221	Product and Pricing Strategy	3 (3-0-6)
BMK 3222	Professional Seminar in Marketing	1 (1-0-2)
BMK 4211	Marketing Research	3 (3-0-6)
BMK 4221	Marketing Metrics and Decisions	3 (3-0-6)
BMK 4222	Capstone Marketing Project	3 (3-0-6)
BRE 3101	Professional Seminar in Real Estate Business	1 (1-0-2)
BRE 3201	Real Estate Business	3 (3-0-6)
BRE 3204	Building Design and Construction Techniques	3 (3-0-6)
BRE 3302	Real Estate Appraisal	3 (3-0-6)
BRE 3303	Commercial Property Management	3 (3-0-6)
BRE 3304	Real Estate Finance and Investment Analysis	3 (3-0-6)
BRE 4303	Real Estate Development and Project Management	3 (3-0-6)
BRE 4412	Contemporary Issues in Real Estate Business	3 (3-0-6)
Music Entrepreneurship Track		
MB 2531	Music Business	3 (3-0-6)
MB 2532	Music Industry	3 (3-0-6)
MB 3537	Music Career Exposure	3 (3-0-6)
MB 3541	Online Social Media for Music Business	3 (3-0-6)
MB 3542	Design Thinking in Music Business	3 (3-0-6)
MB 3545	Digital Marketing for Music Entrepreneur	3 (3-0-6)
MB 3549	Music Entrepreneurship Research	3 (3-0-6)
MB 3550	Feasibility Study for Music Entrepreneur	3 (3-0-6)
MB 3551	Creative Music Entrepreneurship	3 (3-0-6)
MB 3561	Artist and Music Management	3 (3-0-6)
MB 4512	Music in Film Industry	3 (3-0-6)
MP 2400	Audio Fundamentals	3 (3-0-6)
MP 2521	Visual Media for Musician I	3 (2-2-5)
MP 2522	Visual Media for Musician II	3 (2-2-5)
MP 3411	Song Demo Production	3 (1-4-4)
MP 4422	Sound Design	3 (1-4-4)
MS 1001	Major Instrument I	2 (1-2-3)
MS 1002	Major Instrument II	2 (1-2-3)
MS 1003	Major Instrument III	2 (1-2-3)
MS 1004	Major Instrument IV	2 (1-2-3)
MS 1300	Introduction to Musical Skills	1 (0-2-1)
MU 1001	Music Appreciation	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1131	Pop Songwriting (Thai)	3 (3-0-6)
MU 1200	Music and Choreography	3 (1-4-4)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 1234	Musical Structure and Analysis	3 (2-3-6)
MU 1301	Music Fundamentals I	3 (3-0-6)
MU 1302	Music Fundamentals II	3 (3-0-6)
MU 3551	Acting for Musicians	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 3603	Music, Health, and Well-being	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
SRX 4400 - 4499	Selected Topics in Music and Entertainment Business	3 (3-0-6)
Architecture Track		
AAI 2103	Architectural Design Principle	3 (3-0-6)
AAI 5414	Energy Saving (Workshop in Germany)	3 (3-0-6)
AAI 5417	Interior Design by Architects	3 (2-2-5)
AAI 5419	Special Topic in History, Theory, and Technology in Architecture	3 (3-0-6)

	AAI 5420	Light, Perception and Culture	3 (3-0-6)
	AAI 5425	Project Feasibility Study	3 (3-0-6)
	AAI 5601	Interior and Semi-outdoor Space Design	3 (1-4-5)
	AAI 5604	Sculpture amidst Architecture	3 (1-4-5)
	AAI 5605	AI Art	3 (1-4-5)
Interior Design Track			
	ADX 1140	Journey of Urban Art and Culture Exploration	3 (3-0-6)
	IAD 1331	Fundamental of Interior Brand design	3 (2-2-5)
	IAD 2121	Interior Material and Applications	3 (2-2-5)
	IAD 4153	Artist Studio (Paper Technique)	3 (2-2-5)
	IAD 4154	Artist Studio (Flower Arrangement)	3 (2-2-5)
	IAD 4159	Decorative Art	3 (2-2-5)
	IAD 4161	Furniture Design Production	3 (2-2-5)

C. Free Elective Courses

9 Credits

Students can take free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any).

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
SRX 0011	Overview of Entrepreneurship and Innovative Design	Non-Credit
DDI 0011	Preparation for Design	Non-Credit
DDI 1111	Entrepreneurial Inspiration	1 (1-0-2)
DDI 1112	Digital Mindset and Sustainability	2 (2-0-4)
DDI 1113	Data and Digital Literacy	2 (2-0-4)
DDI 1114	Business Innovation and Design Thinking	2 (2-0-4)
DDI 1115	Digital Consumer Insights	2 (2-0-4)
DDI 1211	Design Exploration	2 (2-0-4)
DDI 1212	Photography and Cinematography	2 (2-0-4)
DDI 1311	Tech Startups	3 (3-0-6)
DDI 1312	UI/UX Design in Technology	2 (2-0-4)
SRX 1001	English for Effective Communication	3 (2-3-6)
SRX 1101	Happiness Advantage	1 (1-0-2)
SRX 14031	Business Ethics Seminar I	Non-Credit
Total 22 (21-3-44)		

Second Semester

Course Code	Course Title	Credits
SRX 1002	English for Academic Purposes	3 (2-3-6)
DDI 1121	Digital Marketing	2 (2-0-4)
DDI 1122	Consumer Research for Strategic Decision Making	2 (2-0-4)
DDI 1123	Global Business and Commercialization	3 (3-0-6)
DDI 1221	Graphic Communication and Presentation	2 (2-0-4)
DDI 1222	Design Thinking for Creatives	2 (2-0-4)
DDI 1321	Agile Methods	2 (2-0-4)
DDI 1322	Application Design and Coding	2 (2-0-4)
SRX 1201	Business Etiquettes and Personal/CEO Branding	2 (2-0-4)
SRX 2111	Pitching and Storytelling	2 (2-0-4)
SRX 14032	Business Ethics Seminar II	Non-Credit
Total 22 (21-3-44)		

Second Year

First Semester

Course Code	Course Title	Credits
SRX 1003	Integrated English Skills	3 (2-3-6)
DDI 2131	Leadership for a Digital Age	2 (2-0-4)

DDI 2132	Digital Media Analytics	3 (3-0-6)
DDI 2133	Global Strategy and Communication	2 (2-0-4)
DDI 2134	Entrepreneurial Finance	2 (2-0-4)
DDI 2231	Design Studio I	2 (2-0-4)
DDI 2331	Practical Data Science for Entrepreneurs	2 (2-0-4)
DDI 2332	AI For Business	2 (2-0-4)
SRX 2101	Empathy and Customer Centric	2 (2-0-4)
DDI 2130	Workshop I	Non-Credit
SRX 14033	Business Ethics Seminar III	Non-Credit
Total 20 (19-3-40)		

Second Semester

Course Code	Course Title	Credits
DDI 2141	Business Networking	2 (2-0-4)
DDI 2142	Brand-Driven Innovation	2 (2-0-4)
DDI 2143	Entrepreneurial Accounting	2 (2-0-4)
DDI 2144	Economics for Entrepreneur	2 (2-0-4)
DDI 2241	Design Studio II	2 (2-0-4)
DDI 2341	Digital Transformation	2 (2-0-4)
SRX 1104	Designing Life with Passion	1 (1-0-2)
SRX 2201	Legal Aspects in Business, IT, and Creative Industry	2 (2-0-4)
SRX 2202	Well-being for Learning and Life	1 (1-0-2)
SRX 2211	Future Skill Forum	1 (1-0-2)
DDI 2140	Workshop II	Non-Credit
SRX 14034	Business Ethics Seminar IV	Non-Credit
Total 17 (17-0-34)		

Third Year

First Semester

Course Code	Course Title	Credits
	3 Personalized Track Courses	9 (9-0-18)
	1 Free Elective Course	3 (3-0-6)
SRX 14035	Business Ethics Seminar V	Non-Credit
Total 12 (12-0-24)		

Second Semester

Course Code	Course Title	Credits
	One Personalized Track Course	3 (3-0-6)
	2 Free Elective Courses	6 (6-0-12)
SRX 14036	Business Ethics Seminar VI	Non-Credit
Total 9 (9-0-18)		

Fourth Year

First Semester

Course Code	Course Title	Credits
	3 Personalized Track Courses	9 (9-0-18)
SRX 14037	Business Ethics Seminar VII	Non-Credit
Total 9 (9-0-18)		

Second Semester

Course Code	Course Title	Credits
	3 Personalized Track Course	9 (9-0-18)
SRX 14038	Business Ethics Seminar VIII	Non-Credit
Total 9 (9-0-18)		



BACHELOR OF ACCOUNTANCY

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Accountancy upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Have to meet the minimum English Proficiency requirement specified in one of the following criteria
- Have obtained a satisfactory pass in MSME assessment tests, eg. basic business knowledge and entrepreneurial skills.

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

- 1) Morally sound, committed to acting justly and open to further growth.
- 2) Have knowledge of accounting principles, possess analytical tools and practical knowledge and skills to make sound accounting decisions.
- 3) Flexible, competent and well-rounded in confronting and solving accounting, financing, and related business problems.
- 4) Able to apply accounting principles in the practice of their profession.
- 5) Able to work as a team and motivate others to work.
- 6) Have positive attitude towards the accounting professions, interpersonal, calculation, analytical, communication and presentation skills, and IT skills.

Bachelor of Accountancy Program

Curriculum Structure

Total number of credits	136	Credits
A. General Education Courses	24	Credits
General Education Required Courses	18	Credits
General Education Elective Courses	6	Credits
B. Specialized Courses	106	Credits
Core Courses	52	Credits
Major Required Courses	45	Credits
Major Elective Courses or Minor Required Courses	9	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	24	Credits
General Education Required Courses	18	Credits
ELE 1001 Communicative English I	3	(2-3-6)
ELE 1002 Communicative English II	3	(2-3-6)
ELE 2000 Academic English	3	(2-3-6)
ELE 2001 Advanced Academic English	3	(2-3-6)
GE 2202 Ethics	3	(3-0-6)
LLB 1501 Business Law (For Non-Law Students)	3	(3-0-6)
General Education Elective Courses	6	Credits
Choose 2 courses from the following GE courses		
GE 1104 Thai Historical Perspectives	3	(3-0-6)
GE 2102 Human Heritage and Globalization	3	(3-0-6)
GE 2103 Art of Reasoning	3	(3-0-6)
GE 2110 Human Civilizations and Global Citizens	2	(2-0-4)
ADX 1102 Design Culture Exposure	2	(0-4-4)
ADX 1140 Journey for Urban Art and Culture Exploration	3	(3-0-6)
FT 2003A Foods Changing the World (Part A)	2	(2-0-4)
FT 2003B Foods Changing the World (Part B)	1	(1-0-2)
GE 1107 Perspectives in Politics and Economy	3	(3-0-6)
MU 1002 Pop Music Appreciation	3	(3-0-6)
MU 1231 History and Literature of Music	3	(3-0-6)
MU 3602 Music Therapy	3	(3-0-6)
MU 4223 Music in Human Life	3	(3-0-6)
GE 1204 Physical Education	1	(0-2-1)
GE 1205 ASEAN Ways	3	(3-0-6)
GE 1209 Psychology Application in Daily Life	3	(3-0-6)
GE 2207 Sport, Health and Wellness Development	3	(3-0-6)
GE 2209 The Power of Personality in Leadership	3	(3-0-6)
GE 2210 Love and Art of Living	3	(3-0-6)
BBA 1004 Essential Marketing for Entrepreneurs	2	(2-0-4)
BBA 1005 Essential Finance for Entrepreneurs	2	(2-0-4)
BBA 1006 Essential Economics for Entrepreneurs	2	(2-0-4)
ADX 1101 Art and Design Appreciation	3	(3-0-6)
ADX 1240 Artist Studio (Painting and Rendering)	3	(2-2-5)
ADX 1303 Design Communication	3	(2-2-5)
ADX 1304 Design Fundamental	3	(2-2-5)
BBA 1010 Design Thinking in Business	3	(3-0-6)
BBA 1012 Entrepreneurial Marketing	3	(3-0-6)
BBA 1020 Design Thinking Essentials	2	(2-0-4)
BBA 1021 Design Thinking Workshop	1	(1-0-2)
BBA 1022 Building CEO and Leadership Essentials	2	(2-0-4)
BBA 1023 Building CEO and Leadership Workshop	1	(1-0-2)
BBA 1024 Entrepreneurial Marketing Essentials	2	(2-0-4)
BBA 1025 Entrepreneurial Marketing Workshop	1	(1-0-2)
CA 1110 Art and Beauty of Living	3	(2-2-5)

AD 3280	Inspiration, Lifestyles and Popular Culture	3 (2-2-5)
EG 1001	Digital Literacy	3 (3-0-6)
FT 1003	Food Factory Explore Trip (Special Course)	3 (3-0-6)
FT 2004	Drinkology: The Art of drinking	3 (3-0-6)
FT 2005	Food Zodiac	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping (For Non-Science Students)	3 (3-0-6)
ITX 2005	Design Thinking (For Non-Science Students)	3 (3-0-6)
ITX 4502	Tech Startup (For Non-Science Students)	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law (For Non-Law Students)	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business (For Non-Law Students)	3 (3-0-6)
LLB 4806	Business and Human Rights (For Non-Law Students)	3 (3-0-6)
MB 2531	Music Business	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support (For Non-Nursing Students)	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior (For Non-Nursing Students)	3 (3-0-6)
GE 1302	Ecology and Sustainability	3 (3-0-6)
GE 1303	Science for Sustainable Future	2 (2-0-4)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
BBA 1013	Entrepreneurial Finance (For Non-MSME Students)	3 (3-0-6)
BBA 1014	The Art of Data for Business	3 (3-0-6)
BBA 1028	The Art of Data Essentials	2 (2-1-4)
BBA 1029	The Art of Data Workshop	1 (0-1-1)
CA 1201	Creative Photography	3 (2-2-5)
CA 1202	Computer Graphic for Presentation Design for Pitching	3 (2-2-5)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
EG 1002	Application Design for Everyone Literacy	3 (3-0-6)
EG 1003	Introduction to Internet of Things (IoTs) Literacy	3 (3-0-6)
EG 1004	Artificial Intelligence for Beginners	3 (3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3 (3-0-6)
FT 1004A	Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
FT 1005	Sustainability and Circular Living	3 (3-0-6)
DM 3280	Digital Art in Data Visualization	3 (2-2-5)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
GE 1403	Thai Language for Professional Communication (For Thai Students)	3 (3-0-6)
GE 1409	Thai Language for Intercultural Communication (For Non-Thai Students)	3 (3-0-6)
GE 1410	Thai for Professional Communication (For Thai Students)	2 (2-0-4)
GE 1411	Thai Language for Multicultural Communication (For Non-Thai Students)	2 (2-0-4)
GE 1412	Introductory Thai Usage (For Thai Students from International Program)	2 (2-0-4)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)

B. Specialized Courses:

Business Core Courses	52	Credits
BBA 1110 Seminar in Business I		1 (1-0-2)
BBA 1120 Seminar in Business II		1 (1-0-2)
BBA 2110 Seminar in Business III		1 (1-0-2)
BBA 2120 Seminar in Business IV		1 (1-0-2)
BBA 1111 Business Essential: A Design Thinking Approach		3 (3-0-6)
BBA 1112 Digital Literacy		3 (2-2-5)
BBA 1113 Mathematics for Business		3 (3-0-6)
BBA 1114 Microeconomics		3 (3-0-6)
BBA 1121 Marketing in Practice		3 (3-0-6)
BBA 1122 Statistics for Business		3 (3-0-6)
BBA 1124 Macroeconomics		3 (3-0-6)
BBA 1125 Fundamentals of Financial Accounting		3 (3-0-6)
BBA 2111 Navigating Global Business Environment		3 (3-0-6)
BBA 2112 Data Analytics Essentials		3 (2-2-5)
BBA 2113 Intercultural Communication and Negotiation		3 (3-0-6)
BBA 2114 Financial Environment and Financial Planning		3 (3-0-6)
BBA 2115 Fundamentals of Managerial Accounting		3 (3-0-6)
BBA 2124 Corporate Finance Management		3 (3-0-6)
BBA 3111 Business Research		3 (3-0-6)
BBA 4111 Entrepreneurship		3 (3-0-6)
Major Required Courses	45	Credits
BAC 3602 Intermediate Accounting I		3 (3-0-6)
BAC 3603 Intermediate Accounting II		3 (3-0-6)
BAC 3608 Financial Report and Financial Statement Analysis		3 (3-0-6)
BAC 3614 Taxation I		3 (3-0-6)
BAC 3615 Taxation II		3 (3-0-6)
BAC 3632 Cost Accounting		3 (3-0-6)
BAC 3643 Auditing		3 (3-0-6)
BAC 3644 Internal Control and Internal Audit		3 (3-0-6)
BAC 4607 Advanced Accounting I		3 (3-0-6)
BAC 4608 Advanced Accounting II		3 (3-0-6)
BAC 4611 Seminar in Accounting		3 (3-0-6)
BAC 4616 Business and Accounting Profession Ethics		3 (3-0-6)
BAC 4646 Accounting Information Systems		3 (3-0-6)
BAC 4647 Accounting Software Packages		3 (3-0-6)
BAC 4648 IT Auditing		3 (3-0-6)
Concentration Courses		
Students must choose one of the two following plans as their concentration courses		
Plan A: Major Concentration Courses OR	9	Credits
Plan B: Business Concentration Courses	9	Credits
PLAN A – Major Concentration Courses	9	Credits
Students must choose one of the five following tracks as their major concentration courses and choose 3 out of 4 courses		
Track A: Auditing	9	Credits
OR Track B: Financial Accounting	9	Credits
OR Track C: Management Accounting and Control	9	Credits
OR Track D: Accounting Information Management Systems	9	Credits
OR Track E: Others	9	Credits
Track A: Auditing		
BAC 4641 Problems in Auditing		3 (3-0-6)
BAC 4643 Seminar in Auditing		3 (3-0-6)
BAC 4645 Forensic Accounting and Fraud Auditing		3 (3-0-6)
BAC 4669 Accounting Internship		3 (135 Hours)
Track B: Financial Accounting		
BAC 4605 International Accounting		3 (3-0-6)
BAC 4609 Accounting Theory		3 (3-0-6)
BAC 4612 Accounting for Specific Enterprises		3 (3-0-6)
BAC 4669 Accounting Internship		3 (135 Hours)

Track C: Management Accounting and Control		
BAC 3633	Cost Management	3 (3-0-6)
BAC 3629	Profit Planning and Control	3 (3-0-6)
BAC 4634	Seminar in Management Accounting	3 (3-0-6)
BAC 4669	Accounting Internship	3 (135 Hours)
Track D: Accounting Information Management System		
BAC 4652	Accounting Information System Analysis and Design for ERP Program	3 (3-0-6)
BAC 4653	Accounting Information System Development and Implementation	3 (3-0-6)
BAC 4654	Data Analytics and Automation in Accounting Information System	3 (3-0-6)
BAC 4655	Seminar in Accounting Information System	3 (3-0-6)
Track E: Others		
Students pursuing Track E must select three major elective courses.		
BAC 3633	Cost Management	3 (3-0-6)
BAC 3626	Hotel Accounting	3 (3-0-6)
BAC 3629	Profit Planning and Control	3 (3-0-6)
BAC 4605	International Accounting	3 (3-0-6)
BAC 4609	Accounting Theory	3 (3-0-6)
BAC 4634	Seminar in Management Accounting	3 (3-0-6)
BAC 4641	Problems in Auditing	3 (3-0-6)
BAC 4643	Seminar in Auditing	3 (3-0-6)
BAC 4645	Forensic Accounting and Fraud Auditing	3 (3-0-6)
BAC 4612	Accounting for Specific Enterprises	3 (3-0-6)
BAC 4614	Tax Planning	3 (3-0-6)
BAC 4615	Seminar in Taxation	3 (3-0-6)
BAC 4652	Accounting Information System Analysis and Design for ERP Program	3 (3-0-6)
BAC 4653	Accounting Information System Development and Implementation	3 (3-0-6)
BAC 4654	Data Analytics and Automation in Accounting Information System	3 (3-0-6)
BAC 4655	Seminar in Accounting Information System	3 (3-0-6)
BAC 4669	Accounting Internship	3 (135 Hours)

PLAN B – Business Concentration Courses

9 Credits

Students pursuing PLAN B must select a concentration in other business areas, and must choose 3 out of 4 courses

Management Information Systems

BDM 3202	Digital Commerce	3 (2-2-5)
BDM 3208	Enterprise Resource Planning	3 (2-2-5)
BDM 3404	Data Structures and Algorithm	3 (2-2-5)
BDM 3405	Database Systems	3 (2-2-5)

Finance

BFR 2231	Business Strategic Analysis and Sustainable Finance	3 (3-0-6)
BFR 3231	Investment Strategy and Valuation	3 (3-0-6)
BFR 3232	Financial Modeling and Analysis	3 (3-0-6)
BFR 3131	Investment Management and Analysis	3 (3-0-6)

Hospitality and Tourism Management

BHT 3211	Gateway to Service Industry	3 (3-0-6)
BHT 3212	Food Service Management	3 (3-0-6)
BHT 3213	Talent Management in Hospitality and Tourism	3 (3-0-6)
BHT 4301	Information Technology in Hospitality and Tourism	3 (3-0-6)

Marketing

BMK 3211	Brand Driven Innovation	3 (3-0-6)
BMK 3212	Integrated Marketing Communications	3 (3-0-6)
BMK 3311	Content Marketing	3 (3-0-6)
BMK 3412	Experiential Marketing	3 (3-0-6)

C. Free Elective Courses**6 Credits**

Students can take two free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any).

Study Plan**First Year****First Semester**

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BBA 1110	Seminar in Business I	1 (1-0-2)
BBA 1111	Business Essential: A Design Thinking Approach	3 (3-0-6)
BBA 1112	Digital Literacy	3 (2-2-5)
BBA 1113	Mathematics for Business	3 (3-0-6)
BBA 1114	Microeconomics	3 (3-0-6)
	One General Elective Course (1/2)	3 (3-0-6)
Total 19(17-5-37)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BBA 1120	Seminar in Business II	1 (1-0-2)
BBA 1121	Marketing in Practice	3 (3-0-6)
BBA 1122	Statistics for Business	3 (3-0-6)
BBA 1124	Macroeconomics	3 (3-0-6)
BBA 1125	Fundamentals of Financial Accounting	3 (3-0-6)
LLB 1501	Business Law	3 (3-0-6)
Total 19 (18-3-38)		

Second Year**First Semester**

Course Code	Course Title	Credits
ELE 2000	Academic English (English III)	3 (2-3-6)
BBA 2110	Seminar in Business III	1 (1-0-2)
BBA 2111	Navigating Global Business Environment	3 (3-0-6)
BBA 2112	Data Analytics Essentials	3 (2-2-5)
BBA 2113	Intercultural Communication and Negotiation	3 (3-0-6)
BBA 2114	Financial Environment and Financial Planning	3 (3-0-6)
BBA 2115	Fundamentals of Managerial Accounting	3 (3-0-6)
Total 19 (17-5-37)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
BBA 2120	Seminar in Business IV	1 (1-0-2)
GE 2202	Ethics	3 (3-0-6)
BBA 2124	Corporate Financial Management	3 (3-0-6)
BAC 3602	Intermediate Accounting I	3 (3-0-6)
BAC 3614	Taxation I	3 (3-0-6)
	One General Elective Course (2/2)	3 (3-0-6)
Total 19 (18-3-38)		

Third Year**First Semester**

Course Code	Course Title	Credits
BAC 3603	Intermediate Accounting II	3 (3-0-6)
BAC 3608	Financial Reporting and Financial Statements Analysis	3 (3-0-6)
BAC 3615	Taxation II	3 (3-0-6)
BAC 3643	Auditing	3 (3-0-6)

BAC 3644	Internal Control and Internal Auditing	3 (3-0-6)
BBA 3111	Business Research	3 (3-0-6)
Total 18 (18-0-36)		

Second Semester

Course Code	Course Title	Credits
BAC 3632	Cost Accounting	3 (3-0-6)
BAC 4607	Advanced Accounting I	3 (3-0-6)
BAC 4616	Business and Accounting Profession Ethics	3 (3-0-6)
BAC 4646	Accounting Information System	3 (3-0-6)
	One Free Elective Course (1/2)	3 (3-0-6)
	One Major elective	
	/Business Elective Course (1/3)	3 (3-0-6)
Total 18(18-0-36)		

Fourth Year

First Semester

Course Code	Course Title	Credits
BAC 4608	Advanced Accounting II	3 (3-0-6)
BAC 4611	Seminar in Accounting	3 (3-0-6)
BAC 4647	Accounting Software Package	3 (3-0-6)
BAC 4648	IT Auditing	3 (3-0-6)
	One Major elective	
	/Business Elective Course (2/3)	3 (3-0-6)
Total 18(18-0-36)		

Second Semester

Course Code	Course Title	Credits
BBA 4111	Entrepreneurship	3 (3-0-6)
	One Major elective	
	/Business Elective Course (3/3)	3 (3-0-6)
	One Free Elective Course (2/2)	3 (3-0-6)
Total 9(9-0-18)		



BACHELOR OF BUSINESS ADMINISTRATION

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Business Administration upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Have to meet the minimum English Proficiency requirement specified in one of the following criteria
- Have obtained a satisfactory pass in MSME assessment tests, eg. basic business knowledge and entrepreneurial skills.

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

- 1) Morally sound, committed to acting justly and open to further growth.
- 2) Have knowledge of accounting principles, possess analytical tools and practical knowledge and skills to make sound accounting decisions.
- 3) Flexible, competent and well-rounded in confronting and solving accounting, financing, and related business problems.
- 4) Able to apply accounting principles in the practice of their profession.
- 5) Able to work as a team and motivate others to work.
- 6) Have positive attitude towards the accounting professions, interpersonal, calculation, analytical, communication and presentation skills, and IT skills.

Bachelor of Business Administration Program

Curriculum Structure

Total number of credits	134	Credits
A. General Education Courses	24	Credits
General Education Required Course	15	Credits
General Education Elective Courses	9	Credits
B. Specialized Courses	104	Credits
Business Core Courses	59	Credits
Major Required Courses	30	Credits
Business Concentration Courses	15	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
ELE 1001 Communicative English I	3	(2-3-6)
ELE 1002 Communicative English II	3	(2-3-6)
ELE 2000 Academic English	3	(2-3-6)
ELE 2001 Advanced Academic English	3	(2-3-6)
GE 2202 Ethics	3	(3-0-6)
General Education Elective Courses	9	Credits
Choose any three courses from the list:		
AD 3280 Inspiration, Lifestyles and Popular Culture	3	(2-2-5)
ADX 1101 Art and Design Appreciation	3	(3-0-6)
ADX 1102 Design Culture Exposure	2	(0-4-4)
ADX 1140 Journey for Urban Art and Culture Exploration	3	(3-0-6)
ADX 1240 Artist Studio (Painting and Rendering)	3	(2-2-5)
ADX 1303 Design Communication	3	(2-2-5)
ADX 1304 Design Fundamental	3	(2-2-5)
CA 1110 Art and Beauty of Living	3	(2-2-5)
CA 1201 Creative Photography	3	(2-2-5)
CA 1202 Computer Graphic for Presentation Design for Pitching	3	(2-2-5)
CSX 3001 Fundamentals of Computer Programming	3	(3-0-6)
EG 1001 Digital Literacy	3	(3-0-6)
EG 1002 Application Design for Everyone Literacy	3	(3-0-6)
EG 1003 Introduction to Internet of Things (IoTs) Literacy	3	(3-0-6)
EG 1004 Artificial Intelligence for beginners	3	(3-0-6)
EG 1005 3D Modelling and 3D Printing Technology	3	(3-0-6)
FT 1003 Food Factory Explore Trip (Special course)	3	(3-0-6)
FT 1004A Food-Agri-Bio Tech Trend Update (Part A)	2	(2-0-4)
FT 1004B Food-Agri-Bio Tech Trend Update (Part B)	1	(1-0-2)
FT 1005 Sustainability and Circular Living	3	(3-0-6)
FT 2003A Foods Changing the World (Part A)	2	(2-0-4)
FT 2003B Foods Changing the World (Part B)	2	(2-0-4)
FT 2004 Drinkology: The Art of drinking	3	(3-0-6)
FT 2005 Food Zodiac	3	(3-0-6)
GE 1104 Thai Historical Perspectives	3	(3-0-6)
GE 1107 Perspectives in Politics and Economy	3	(3-0-6)
GE 1204 Physical Education	1	(0-2-1)
GE 1205 ASEAN Ways	3	(3-0-6)
GE 1209 Psychology Application in Daily Life	3	(3-0-6)
GE 1302 Ecology and Sustainability	3	(3-0-6)
GE 1303 Science for Sustainable Future	2	(2-0-4)
GE 1403 Thai Language for Professional Communication (For Thai students)	3	(3-0-6)
GE 1408 Thai Usage (Required course for Thai students from International Program)	3	(3-0-6)

GE 1409	Thai Language for Intercultural Communication (For Non-Thai students)	3 (3-0-6)
GE 1410	Thai for Profession Communication (For Thai students)	2 (2-0-4)
GE 1411	Thai Language for Multicultural Communication (For Non-Thai students)	2 (2-0-4)
GE 1412	Introductory Thai Usage (For Thai students from International Program)	2 (2-0-4)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
LLB 1501	Business Law (For Non-Law students)	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law (For Non-Law students)	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business (For Non-Law students)	3 (3-0-6)
LLB 4806	Business and Human Rights (For Non-Law students)	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 2531	Music Business	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support (For Non-Nursing students)	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior (For Non-Nursing students)	3 (3-0-6)

B. Specialized Courses

Business Core Courses

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Credits

Credits

BBA 1110	Seminar in Business I	1 (1-0-2)
BBA 1111	Business Essential: A Design Thinking Approach	3 (3-0-6)
BBA 1112	Digital Literacy	3 (2-2-5)
BBA 1113	Mathematics for Business	3 (3-0-6)
BBA 1114	Microeconomics	3 (3-0-6)
BBA 1120	Seminar in Business II	1 (1-0-2)
BBA 1121	Marketing in Practice	3 (3-0-6)
BBA 1122	Statistics for Business	3 (3-0-6)
BBA 1123	Management in Dynamic Contexts	3 (3-0-6)
BBA 1124	Macroeconomics	3 (3-0-6)
BBA 1125	Fundamentals of Financial Accounting	3 (3-0-6)
BBA 2111	Navigating Global Business Environment	3 (3-0-6)
BBA 2112	Data Analytics Essentials	3 (2-2-5)
BBA 2113	Intercultural Communication and Negotiation	3 (3-0-6)

BBA 2114	Financial Environment and Financial Planning	3 (3-0-6)
BBA 2115	Fundamentals of Managerial Accounting	3 (3-0-6)
BBA 2121	Consumer Behavior and Insights	3 (3-0-6)
BBA 2122	Operations and Supply Chain Management	3 (3-0-6)
BBA 2123	Essential Strategies for Sustainable Business	3 (3-0-6)
BBA 2124	Corporate Financial Management	3 (3-0-6)
BBA 3111	Business Research	3 (3-0-6)
Major Required Courses		30 Credits
Digital Business Management		
BBA 2110	Seminar in Business III	1 (1-0-2)
BBA 2120	Seminar in Business IV	1 (1-0-2)
BBA 2125	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
BBA 4111	Entrepreneurship	3 (3-0-6)
BDM 3202	Digital Commerce	3 (2-2-5)
BDM 3207	Systems Analysis and Design	3 (2-2-5)
BDM 3208	Enterprise Resource Planning	3 (2-2-5)
BDM 3303	Data Mining	3 (2-2-5)
BDM 3306	Essential Logic for Data Professionals	3 (2-2-5)
BDM 3405	Database Systems	3 (2-2-5)
BDM 3415	Business Intelligence	3 (2-2-5)
BDM 3486	Professional Seminar in Digital Business Management	1 (1-0-2)
Finance and Risk Management		
BBA 2110	Seminar in Business III	1 (1-0-2)
BBA 2120	Seminar in Business IV	1 (1-0-2)
BBA 2125	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
BBA 4111	Entrepreneurship	3 (3-0-6)
BFR 2231	Business Strategic Analysis and Sustainable Finance	3 (3-0-6)
BFR 3121	Professional Seminar in Finance and Risk Management	1 (1-0-2)
BFR 3131	Investment Management and Analysis	3 (3-0-6)
BFR 3132	Risk Management and Insurance	3 (3-0-6)
BFR 3133	Financial Reporting and Analysis	3 (3-0-6)
BFR 3231	Investment Strategy and Valuation	3 (3-0-6)
BFR 3232	Financial Modeling and Analysis	3 (3-0-6)
BFR 4131	Value Based Management and Financial Decisions	3 (3-0-6)
Global Business Management		
BBA 2110	Seminar in Business III	1 (1-0-2)
BBA 2120	Seminar in Business IV	1 (1-0-2)
BBA 2125	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
BBA 4111	Entrepreneurship	3 (3-0-6)
BGB 3210	Professional Seminar in Global Business Management	1 (1-0-2)
BGB 3211	Diversity and Culture in Global Environment	3 (3-0-6)
BGB 3212	Marketing Strategies for Global Ventures	3 (3-0-6)
BGB 3221	Global Business Strategies	3 (3-0-6)
BGB 3222	Strategic Export-Import Practices and Research	3 (3-0-6)
BGB 4211	Global Supply Chain Management	3 (3-0-6)
BGB 4212	Global Business Feasibility and Risk Management	3 (3-0-6)
BGB 4221	Strategic Decision Making	3 (3-0-6)
Hospitality and Tourism Management		
BBA 2110	Seminar in Business III	1 (1-0-2)
BBA 2120	Seminar in Business IV	1 (1-0-2)
BBA 2125	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
BBA 4111	Entrepreneurship	3 (3-0-6)
BHT 3211	Gateway to Service Industry	3 (3-0-6)
BHT 3212	Food Service Management	3 (3-0-6)
BHT 3213	Talent Management in Hospitality and Tourism	3 (3-0-6)

	BHT 4104	Professional Seminar in Hospitality and Tourism Management	1 (1-0-2)
	BHT 4301	Information Technology in Hospitality and Tourism	3 (3-0-6)
	BHT 4302	Operations and Leadership in Hospitality and Tourism	3 (3-0-6)
	BHT 4303	Strategic Management in Hospitality and Tourism	3 (3-0-6)
	BHT 4304	Internship in Hospitality and Tourism	3 (400 hours)
Marketing	BBA 2110	Seminar in Business III	1 (1-0-2)
	BBA 2120	Seminar in Business IV	1 (1-0-2)
	BBA 2125	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
	BBA 4111	Entrepreneurship	3 (3-0-6)
	BMK 3211	Brand Driven Innovation	3 (3-0-6)
	BMK 3212	Digital Marketing and Communications	3 (3-0-6)
	BMK 3213	Marketing Analysis and Strategy	3 (3-0-6)
	BMK 3221	Product and Pricing Strategy	3 (3-0-6)
	BMK 3222	Professional Seminar in Marketing	1 (1-0-2)
	BMK 4211	Marketing Research	3 (3-0-6)
	BMK 4221	Marketing Metrics and Decisions	3 (3-0-6)
	BMK 4222	Capstone Marketing Project	3 (3-0-6)
Real Estate	BBA 2110	Seminar in Business III	1 (1-0-2)
	BBA 2120	Seminar in Business IV	1 (1-0-2)
	BBA 2125	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
	BBA 4111	Entrepreneurship	3 (3-0-6)
	BRE 3101	Professional Seminar in Real Estate Business	1 (1-0-2)
	BRE 3201	Real Estate Business	3 (3-0-6)
	BRE 3204	Building Design and Construction Techniques	3 (3-0-6)
	BRE 3302	Real Estate Appraisal	3 (3-0-6)
	BRE 3303	Commercial Property Management	3 (3-0-6)
	BRE 3304	Real Estate Finance and Investment Analysis	3 (3-0-6)
	BRE 4303	Real Estate Development and Project Management	3 (3-0-6)
	BRE 4412	Contemporary Issues in Real Estate Business	3 (3-0-6)
Business Concentration Courses			15 Credits
Accountancy			
(Choose any five courses from the list:)			
	BAC 3602	Intermediate Accounting I	3 (3-0-6)
	BAC 3603	Intermediate Accounting II	3 (3-0-6)
	BAC 3608	Financial Report and Financial Statement Analysis	3 (3-0-6)
	BAC 3614	Taxation I	3 (3-0-6)
	BAC 3615	Taxation II	3 (3-0-6)
	BAC 3632	Cost Accounting	3 (3-0-6)
	BAC 3643	Auditing	3 (3-0-6)
	BAC 3644	Internal Control and Internal Audit	3 (3-0-6)
	BAC 4607	Advanced Accounting I	3 (3-0-6)
	BAC 4608	Advanced Accounting II	3 (3-0-6)
	BAC 4611	Seminar in Accounting	3 (3-0-6)
	BAC 4646	Accounting Information Systems	3 (3-0-6)
	BAC 4647	Accounting Software Packages	3 (3-0-6)
Business Analytics Concentration for Non-Digital Business Management Major Students			
Choose between BDM 3305 or BDM 3424			
	BDM 3302	Data Management	3 (2-2-5)
	BDM 3303	Data Mining	3 (2-2-5)
	BDM 3305	Big Data Analytics	3 (2-2-5)
	BDM 3405	Database Systems	3 (2-2-5)
	BDM 3415	Business Intelligence	3 (2-2-5)
	BDM 3424	Innovative Technology Applications	3 (2-2-5)

Digital Business Transformation Concentration for Non-Digital Business Management Major Students

BDM 3202	Digital Commerce	3 (2-2-5)
BDM 3206	Digital Business Process	3 (2-2-5)
BDM 3207	Systems Analysis and Design	3 (2-2-5)
BDM 3208	Enterprise Resource Planning	3 (2-2-5)
BDM 3424	Innovative Technology Applications	3 (2-2-5)

Enterprise Business and Analytics Concentration for Digital Business Management Major Students

Choose between BDM 3305 or BDM 3424

BDM 3206	Digital Business Process	3 (2-2-5)
BDM 3302	Data Management	3 (2-2-5)
BDM 3305	Big Data Analytics	3 (2-2-5)
BDM 3424	Innovative Technology Applications	3 (2-2-5)
BDM 3481	Digital Business Internship I	3 (0-30-0)
BDM 3482	Digital Business Internship II	3 (0-30-0)

Digital Business Practicum for Digital Business Management Major Students

BDM 3481	Digital Business Internship I	3 (0-30-0)
BDM 3482	Digital Business Internship II	3 (0-30-0)
BDM 3483	Digital Business Internship III	3 (0-30-0)
BDM 3484	Digital Business Internship IV	3 (0-30-0)
BDM 3485	Digital Business Internship V	3 (0-30-0)

Business Economics Concentration

(Choose any five courses from the list:)

BEC 2310	Calculus	3 (3-0-6)
BEC 2311	Applied Econometrics	3 (3-0-6)
BEC 2410	Economic Reasoning	3 (3-0-6)
BEC 3110	Microeconomics II	3 (3-0-6)
BEC 3111	Game Theory	3 (3-0-6)
BEC 3112	Managerial Economics	3 (3-0-6)
BEC 3113	Industrial Organization	3 (3-0-6)
BEC 3210	Macroeconomics II	3 (3-0-6)
BEC 3311	Time Series Analysis and Forecasting	3 (3-0-6)
BEC 3312	Business Intelligence	3 (3-0-6)
BEC 3314	Cost and Benefit Analysis	3 (3-0-6)
BEC 3410	International Economics	3 (3-0-6)

Finance Concentration for Finance and Risk Management Major Students

BFR 3241	Financial Risk Management	3 (3-0-6)
BFR 3242	Portfolio Management and Analysis	3 (3-0-6)
BFR 4141	Business and Financial Data Analytics	3 (3-0-6)
BFR 4142	Startup Finance and FinTech	3 (3-0-6)
BFR 4143	Personal Wealth Management and Financial Planning	3 (3-0-6)

Finance Concentration for Non-Finance and Risk Management Major Students

BFR 2231	Business Strategic Analysis and Sustainable Finance	3 (3-0-6)
BFR 3131	Investment Management and Analysis	3 (3-0-6)
BFR 3242	Portfolio Management and Analysis	3 (3-0-6)
BFR 4141	Business and Financial Data Analytics	3 (3-0-6)
BFR 4143	Personal Wealth Management and Financial Planning	2 (3-0-6)

Risk Management Concentration for Finance and Risk Management Major Students

BFR 3243	Property and Casualty Insurance	3 (3-0-6)
BFR 3244	Life and Health Insurance	3 (3-0-6)
BFR 4144	Operations in Non-Life Insurance	3 (3-0-6)
BFR 4145	Operations in Life Insurance	3 (3-0-6)
BFR 4146	Enterprise Risk Management	3 (3-0-6)

Risk Management Concentration for Non-Finance and Risk Management Major Students

BFR 3132	Risk Management and Insurance	3 (3-0-6)
BFR 3243	Property and Casualty Insurance	3 (3-0-6)

	BFR 3244	Life and Health Insurance	3 (3-0-6)
	BFR 4144	Operations in Non-Life Insurance	3 (3-0-6)
	BFR 4145	Operations in Life Insurance	3 (3-0-6)
Global Human Resource Strategy Concentration for Global Business Management Major Students and Non- Global Business Management Students			
	BGB 3311	Innovative Strategies for Talent Acquisition and Retention	3 (3-0-6)
	BGB 3312	Strategies for Effective Human Relationship Management	3 (3-0-6)
	BGB 3321	Human Resource Leadership for Sustainable Change	3 (3-0-6)
	BGB 3322	Human Resource Analytics and Decision-Making	3 (3-0-6)
	BGB 4311	Global Human Resource Capstone Practicum	3 (300 hours)
Global Supply Chain Management Concentration for Global Business Management Major Students and Non- Global Business Management Students			
	BGB 3313	Lean Manufacturing and Agile Supply Chain	3 (3-0-6)
	BGB 3314	International Transportation and Distribution Management	3 (3-0-6)
	BGB 3323	Warehousing and Material Handling	3 (3-0-6)
	BGB 3324	Procurement and Supply Management	3 (3-0-6)
	BGB 4312	Supply Chain Risk Management	3 (3-0-6)
Global Immersion Program Concentration for Global Business Management Major Students			
	BGB 3315	Global Context of Business	3 (3-0-6)
	BGB 3316	Special Topics in Global Business Management	3 (3-0-6)
	BGB 3325	Venture Opportunity	3 (3-0-6)
	BGB 3326	Industry Immersion Consulting	3 (3-0-6)
	BGB 4313	Global Business Management Internship	3 (300 hours)
Global Business Management Concentration for Non- Global Business Management Major Students			
	BGB 3211	Diversity and Culture in Global Environment	3 (3-0-6)
	BGB 3212	Marketing Strategies for Global Ventures	3 (3-0-6)
	BGB 3221	Global Business Strategies	3 (3-0-6)
	BGB 4211	Global Supply Chain Management	3 (3-0-6)
	BGB 4221	Strategic Decision Making	3 (3-0-6)
Hospitality and Tourism Management Concentration for Hospitality and Tourism Management major, Non- Hospitality and Tourism Management major, Other School students			
	BHT 3405	Kitchen Operation	3 (3-0-6)
	BHT 3421	Front Office and Rooms Management	3 (3-0-6)
	BHT 3422	Service Excellence	3 (3-0-6)
	BHT 3423	Professional Personality Development in Hospitality and Tourism	3 (3-0-6)
	BHT 3424	Restaurant Service	3 (3-0-6)
Global Immersion Program Concentration for Hospitality and Tourism Management Major Students			
	BHT 4306	Special Topic in Hospitality and Tourism Management I	3 (3-0-6)
	BHT 4307	Special Topic in Hospitality and Tourism Management II	3 (3-0-6)
	BHT 4308	Special Topic in Hospitality and Tourism Management III	3 (3-0-6)
	BHT 4309	Special Topic in Hospitality and Tourism Management IV	3 (3-0-6)
	BHT 4310	Special Topic in Hospitality and Tourism Management V	3 (3-0-6)
Digital Marketing Essential Concentration for both Marketing Major and Non-Marketing Major Students			
	BMK 3310	Digital Consumer Insights	3 (3-0-6)
	BMK 3311	Content Marketing	3 (3-0-6)

	BMK 3321	Essential MarTech	3 (3-0-6)
	BMK 4311	Digital Media Strategies	3 (3-0-6)
	BMK 4321	Digital Marketing in Practice	3 (3-0-6)
New Business Ventures"	Concentration for both Marketing Major and Non-Marketing Major Students		
	BFR 4146	Enterprise Risk Management	3 (3-0-6)
	BGB 3310	Business Model Development	3 (3-0-6)
	BMK 3312	Retail Marketing and Merchandising	3 (3-0-6)
	BMK 3322	Innovations in Customer Experience and Sales	3 (3-0-6)
	BMK 4322	Commercialization	3 (3-0-6)
Marketing Concentration for Non-Marketing Major Students			
	BMK 3211	Brand Driven Innovation	3 (3-0-6)
	BMK 3212	Digital Marketing and Communications	3 (3-0-6)
	BMK 3213	Marketing Analysis and Strategy	3 (3-0-6)
	BMK 3322	Innovations in Customer Experience and Sales	3 (3-0-6)
	BMK 3412	Experiential and Lifestyle Marketing	3 (3-0-6)
Real Estate Concentration for Non- Real Estate Major Students			
	BRE 3201	Real Estate Business	3 (3-0-6)
	BRE 3204	Building Design and Construction Techniques	3 (3-0-6)
	BRE 3303	Commercial Property Management	3 (3-0-6)
	BRE 3304	Real Estate Finance and Investment Analysis	3 (3-0-6)
	BRE 4303	Real Estate Development and Project Management	3 (3-0-6)
Integrative Business			
(Choose five of any major, minor or course below.)			
	BBA 3410	Law for Business	3 (3-0-6)
	- 3419		
	BBA 3420	Health and Wellness for Business	3 (3-0-6)
	- 3429		
	BBA 3430	Biotechnology for Business	3 (3-0-6)
	- 3439		
	BBA 3440	Digital Technology for Business	3 (3-0-6)
	- 3449		
	BBA 3450	Engineering Technology for Business	3 (3-0-6)
	- 3459		
	BBA 3460	Design for Business	3 (3-0-6)
	- 3469		
	BBA 3470	Creative Arts for Business	3 (3-0-6)
	- 3479		
	BBA 3480	Language and Culture for Business	3 (3-0-6)
	- 3489		
	BBA 4401	Business Practicum I	3 (3-0-6)
	BBA 4402	Business Practicum II	3 (3-0-6)
	BBA 4403	Business Practicum III	3 (3-0-6)
	BBA 4404	Business Practicum IV	3 (3-0-6)
	BBA 4405	Business Practicum V	3 (3-0-6)
	BBA 4406	Business Practicum VI	3 (3-0-6)
	BFR 3211	Tax and Estate Planning	3 (3-0-6)
	BFR 3311	Insurance and Retirement Planning	3 (3-0-6)
	BGB 3416	Current Issues in Entrepreneurship and Innovation	3 (3-0-6)
	BGB 4411	Seminar in Global Business Management	3 (3-0-6)
	BGB 4412	Individual Research	3 (3-0-6)
	BHT 3405	Kitchen Operation	3 (3-0-6)
	BHT 3406	Catering, Bakery and Pastry	3 (3-0-6)
	BHT 3407	Introduction to Airline Business Management	3 (3-0-6)
	BHT 3408	Ground Operation Management	3 (3-0-6)
	BHT 3409	In-flight Service Management	3 (3-0-6)
	BHT 3411	Sustainable Tourism Management	3 (3-0-6)
	BHT 3412	Health and Wellness Tourism	3 (3-0-6)

BHT 3414	Tour Guiding and Operation in Practice	3 (3-0-6)
BHT 3415	Tourism Destination Management	3 (3-0-6)
BHT 3421	Front Office and Rooms Management	3 (3-0-6)
BHT 3422	Service Excellence	3 (3-0-6)
BHT 3423	Professional Personality Development in Hospitality and Tourism	3 (3-0-6)
BHT 3424	Restaurant Service	3 (3-0-6)
BHT 4305	Current Issues in Hospitality and Tourism	3 (3-0-6)
BMK 3310	Digital Consumer Insights	3 (3-0-6)
BMK 3311	Content Marketing	3 (3-0-6)
BMK 3312	Retail Marketing and Merchandising	3 (3-0-6)
BMK 3321	Essential MarTech	3 (3-0-6)
BMK 3322	Innovations in Customer Experience and Sales	3 (3-0-6)
BMK 3412	Experiential and Lifestyle Marketing	3 (3-0-6)
BMK 4311	Digital Media Strategies	3 (3-0-6)
BMK 4321	Digital Marketing in Practice	3 (3-0-6)
BMK 4322	Commercialization	3 (3-0-6)
BMK 4411	Sustainability Marketing	3 (3-0-6)
BMK 4412	Marketing Internship	3 (300 Hours)
BRE 3411	Real Estate Marketing	3 (3-0-6)
BRE 4441	Independent Study in Real Estate	3 (3-0-6)
BRE 4451	Internship in Real Estate Business	3 (300 Hours)
BSB 3301	Project Management and Feasibility	3 (3-0-6)
BSB 3302	Strategic Brand Management and Brand Communications	3 (3-0-6)
BSB 3303	Business Intelligence and Strategic Decisions	3 (3-0-6)
BSB 3304	Strategic Supply Chain Management	3 (3-0-6)
BSB 3305	Integrative Marketing Management	3 (3-0-6)
BSB 3306	Integrative Strategic Management	3 (3-0-6)
For students majoring in Global Business Management, Hospitality and Tourism Management only		
CN 0400	Chinese for Beginners I	3 (3-0-6)
CN 1400	Introduction to Chinese	3 (3-0-6)
CN 1401	Chinese I	3 (3-0-6)
CN 2401	Chinese II	3 (3-0-6)
CN 2402	Chinese III	3 (3-0-6)
FIB 1515	Fundamental French	3 (3-0-6)
FIB 1516	Communicative French I	3 (3-0-6)
FIB 2518	Communicative French II	3 (3-0-6)
FIB 2520	Advanced French	3 (3-0-6)
FIB 3523	Business French I	3 (3-0-6)
JA 0723	Reading and Writing Japanese Scripts	3 (3-0-6)
JA 1700	Introduction to Japanese	3 (3-0-6)
JA 1701	Japanese I	3 (3-0-6)
JA 2701	Japanese II	3 (3-0-6)
JA 2702	Japanese III	3 (3-0-6)

C. Free Elective Courses

6 Credits

Students can take free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any). However, they are certain courses that the Martin de Tours School of Management and Economics does not allow the students to enroll as follows:

Subject Code Subject Name

ACT 1601	Fundamentals of Financial Accounting
ACT 1602	Fundamentals of Financial Accounting
BAC 1103	Fundamentals of Financial Accounting
BAC 1601	Fundamentals of Financial Accounting
BAC 1602	Fundamentals of Financial Accounting I
BAC 1603	Fundamentals of Financial Accounting II
BAC 1621	Accounting for Economists

BBA 1002	Microeconomics
BBA 1004	Essential Marketing for Entrepreneurs
BBA 1005	Essential Finance for Entrepreneurs
BBA 1006	Essential Economics for Entrepreneurs
BBA 1007	Data Analytics for Entrepreneurs
BBA 1014	The Art of Data for Business
BBA 1020	Design Thinking Essentials
BBA 1021	Design Thinking Workshop
BBA 1022	Building CEO and Leadership Essentials
BBA 1023	Building CEO and Leadership Workshop
BBA 1024	Entrepreneurial Marketing Essentials
BBA 1025	Entrepreneurial Marketing Workshop
BBA 1028	The Art of Data Essentials
BBA 1029	The Art of Data Workshop
BBA 2001	Human Behavior
BEC 2200	Introduction to Economics
BEC 1101	Microeconomics I
BEC 1201	Macroeconomics I
BG 1301	Fundamentals of Statistics
BG 1400	Business Law I
BG 1401	Business Law II
ECO 2202	Macroeconomics
ECO 2531	Principles of Microeconomics
ECO 2541	Principles of Macroeconomics
GE 1101	Thai Civilization
GE 1103	Thai Historical Perspectives
GE 1203	Society, Politics and Economics
GE 1207	Fundamental Psychology
GE 1403	Thai Language for Professional Communication (For Thai students)
GE 1404	Thai Culture and Tradition
GE 1405	Thai Language and Culture (for International students)
GE 1408	Thai usage (for students who graduated from international schools)
GS 1108	Applied Mathematics
MA 1000	Business Mathematics and Statistics
SA 1201	Statistics I
SA 2200	Statistics II

In addition to the above courses, students are not allowed to enroll in courses from previous curriculum of the Martin de Tours School of Management and Economics unless they have obtained a written permission from the School. These courses are designated with the following letter codes: ACT, BIS, ECO, FIN, HTM, IBM, IDM, IML, INS, MGT, MIS, MKT, and REM.

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BBA 1110	Seminar in Business I	1 (1-0-2)
BBA 1111	Business Essential: A Design Thinking Approach	3 (3-0-6)
BBA 1112	Digital Literacy	3 (2-2-5)
BBA 1113	Mathematics for Business	3 (3-0-6)
BBA 1114	Microeconomics	3 (3-0-6)
	One General Education Elective Course (1/3)	3 (3-0-6)
Total	19 (17-5-37)	

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BBA 1120	Seminar in Business II	1 (1-0-2)
BBA 1121	Marketing in Practice	3 (3-0-6)
BBA 1122	Statistics for Business	3 (3-0-6)
BBA 1123	Management in Dynamic Contexts	3 (3-0-6)
BBA 1124	Macroeconomics	3 (3-0-6)
BBA 1125	Fundamentals of Financial Accounting	3 (3-0-6)
Total 19 (18-3-38)		

**Second Year
First Semester**

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
BBA 2110	Seminar in Business III	1 (1-0-2)
BBA 2111	Navigating Global Business Environment	3 (3-0-6)
BBA 2112	Data Analytics Essentials	3 (2-2-5)
BBA 2113	Intercultural Communication and Negotiation	3 (3-0-6)
BBA 2114	Financial Environment and Financial Planning	3 (3-0-6)
BBA 2115	Fundamentals of Managerial Accounting	3 (3-0-6)
Total 19 (17-5-37)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
BBA 2120	Seminar in Business IV	1 (1-0-2)
BBA 2121	Consumer Behavior and Insights	3 (3-0-6)
BBA 2122	Operations and Supply Chain Management	3 (3-0-6)
BBA 2123	Essential Strategies for Sustainable Business	3 (3-0-6)
BBA 2124	Corporate Financial Management	3 (3-0-6)
BBA 2125	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
Total 19 (18-3-38)		

**Third Year
First Semester**

Course Code	Course Title	Credits
BBA 3111	Business Research	3 (3-0-6)
	Major's Professional Seminar	1 (1-0-2)
GE 2202	Ethics	3 (3-0-6)
	One General Education Elective Course (2/3)	3 (3-0-6)
	One General Education Elective Course (3/3)	3 (3-0-6)
	Major Required Course (1/7)	3 (3-0-6)
	Major Required Course (2/7)	3 (3-0-6)
Total 19 (18-0-38)		

Second Semester

Course Code	Course Title	Credits
	Major Required Course (3/7)	3 (3-0-6)
	Major Required Course (4/7)	3 (3-0-6)
	Business Concentration Course (1/5)	3 (3-0-6)
	Business Concentration Course (2/5)	3 (3-0-6)
	Business Concentration Course (3/5)	3 (3-0-6)
Total 15 (15-0-30)		

**Fourth Year
First Semester**

Course Code	Course Title	Credits
	Major Required Course (5/7)	3 (3-0-6)
	Major Required Course (6/7)	3 (3-0-6)
	Major Required Course (7/7)	3 (3-0-6)
	Business Concentration Course (4/5)	3 (3-0-6)
	Business Concentration Course (5/5)	3 (3-0-6)
	Total 15 (15-0-30)	

Second Semester

Course Code	Course Title	Credits
BBA 4111	Entrepreneurship	3 (3-0-6)
	Free Elective Course (1/2)	3 (3-0-6)
	Free Elective Course (2/2)	3 (3-0-6)
	Total 9 (9-0-18)	

BACHELOR OF ECONOMICS

PROGRAM IN BUSINESS ECONOMICS

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Economics Program in Business Economics upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Have to meet the minimum English Proficiency requirement specified in one of the following criteria
- Have obtained a satisfactory pass in MSME assessment tests, eg. basic business knowledge and entrepreneurial skills.

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

- 1) Morally sound, committed to acting justly and open to further growth.
- 2) Have knowledge of accounting principles, possess analytical tools and practical knowledge and skills to make sound accounting decisions.
- 3) Flexible, competent and well-rounded in confronting and solving accounting, financing, and related business problems.
- 4) Able to apply accounting principles in the practice of their profession.
- 5) Able to work as a team and motivate others to work.
- 6) Have positive attitude towards the accounting professions, interpersonal, calculation, analytical, communication and presentation skills, and IT skills.



Bachelor of Economics Program

Curriculum Structure

Total number of credits	134	Credits
A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
General Education Elective Courses	9	Credits
B. Specialized Courses	104	Credits
Business Core Courses	43	Credits
Major Required Courses	46	Credits
Business Concentration Courses	15	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
ELE 1001 Communicative English I	3	(2-3-6)
ELE 1002 Communicative English II	3	(2-3-6)
ELE 2000 Academic English	3	(2-3-6)
ELE 2001 Advanced Academic English	3	(2-3-6)
GE 2202 Ethics	3	(3-0-6)
General Education Elective Courses	9	Credits
Choose any three courses from the list:		
AD 3280 Inspiration, Lifestyles and Popular Culture	3	(2-2-5)
ADX 1101 Art and Design Appreciation	3	(3-0-6)
ADX 1102 Design Culture Exposure	2	(0-4-4)
ADX 1140 Journey for Urban Art and Culture Exploration	3	(3-0-6)
ADX 1240 Artist Studio (Painting and Rendering)	3	(2-2-5)
ADX 1303 Design Communication	3	(2-2-5)
ADX 1304 Design Fundamental	3	(2-2-5)
CA 1110 Art and Beauty of Living	3	(2-2-5)
CA 1201 Creative Photography	3	(2-2-5)
CA 1202 Computer Graphic for Presentation Design for Pitching	3	(2-2-5)
CSX 3001 Fundamentals of Computer Programming	3	(3-0-6)
EG 1001 Digital Literacy	3	(3-0-6)
EG 1002 Application Design for Everyone Literacy	3	(3-0-6)
EG 1003 Introduction to Internet of Things (IoTs) Literacy	3	(3-0-6)
EG 1004 Artificial Intelligence for beginners	3	(3-0-6)
EG 1005 3D Modelling and 3D Printing Technology	3	(3-0-6)
FT 1003 Food Factory Explore Trip (Special course)	3	(3-0-6)
FT 1004A Food-Agri-Bio Tech Trend Update (Part A)	2	(2-0-4)
FT 1004B Food-Agri-Bio Tech Trend Update (Part B)	1	(1-0-2)
FT 1005 Sustainability and Circular Living	3	(3-0-6)
FT 2003A Foods Changing the World (Part A)	2	(2-0-4)
FT 2003B Foods Changing the World (Part B)	2	(2-0-4)
FT 2004 Drinkology: The Art of drinking	3	(3-0-6)
FT 2005 Food Zodiac	3	(3-0-6)
GE 1104 Thai Historical Perspectives	3	(3-0-6)
GE 1107 Perspectives in Politics and Economy	3	(3-0-6)
GE 1204 Physical Education	1	(0-2-1)
GE 1205 ASEAN Ways	3	(3-0-6)
GE 1209 Psychology Application in Daily Life	3	(3-0-6)
GE 1302 Ecology and Sustainability	3	(3-0-6)
GE 1303 Science for Sustainable Future	2	(2-0-4)
GE 1403 Thai Language for Professional Communication (For Thai students)	3	(3-0-6)
GE 1409 Thai Language for Intercultural Communication (For Non-Thai students)	3	(3-0-6)
GE 1410 Thai for Profession Communication	2	(2-0-4)

	(For Thai students)	
GE 1411	Thai Language for Multicultural Communication (For Non-Thai students)	2 (2-0-4)
GE 1412	Introductory Thai Usage (For Thai students from International Program)	2 (2-0-4)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
LLB 1501	Business Law (For Non-Law students)	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law (For Non-Law students)	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business (For Non-Law students)	3 (3-0-6)
LLB 4806	Business and Human Rights (For Non-Law students)	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 2531	Music Business	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support (For Non-Nursing students)	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior (For Non-Nursing students)	3 (3-0-6)
BEC 4006	Business Economic Practicum VI	3 (3-0-6)
BEC 4406	Advanced Business Economics VI	3 (3-0-6)
BEC 4412	Business Economics Research Writing	3 (3-0-6)

B. Specialized Courses

104 Credits

Business Core Courses

43 Credits

BBA 1110	Seminar in Business I	1 (1-0-2)
BBA 1111	Business Essential: A Design Thinking Approach	3 (3-0-6)
BBA 1112	Digital Literacy	3 (2-2-5)
BBA 1113	Mathematics for Business	3 (3-0-6)
BBA 1120	Seminar in Business II	1 (1-0-2)
BBA 1121	Marketing in Practice	3 (3-0-6)
BBA 1122	Statistics for Business	3 (3-0-6)
BBA 1123	Management in Dynamic Context	3 (3-0-6)
BBA 1125	Fundamentals of Financial Accounting	3 (3-0-6)
BBA 2110	Seminar in Business III	1 (1-0-2)
BBA 2112	Data Analytics Essentials	3 (2-2-5)
BBA 2114	Financial Environment and Financial Planning	3 (3-0-6)
BBA 2115	Fundamentals of Managerial Accounting	3 (3-0-6)
BBA 2120	Seminar in Business IV	1 (1-0-2)

	BBA 2124	Corporate Financial Management	3 (3-0-6)
	BEC 1110	Microeconomics I	3 (3-0-6)
	BEC 1210	Macroeconomics I	3 (3-0-6)
Major Required Courses			46 Credits
	BEC 2310	Calculus	3 (3-0-6)
	BEC 2311	Applied Econometrics	3 (3-0-6)
	BEC 2410	Economic Reasoning	3 (3-0-6)
	BEC 3010	Professional Seminar in Business Economics	1 (1-0-2)
	BEC 3110	Microeconomics II	3 (3-0-6)
	BEC 3111	Game Theory	3 (3-0-6)
	BEC 3112	Managerial Economics	3 (3-0-6)
	BEC 3113	Industrial Organization	3 (3-0-6)
	BEC 3210	Macroeconomics II	3 (3-0-6)
	BEC 3301	Computer Tools for Economic Analysis	3 (2-2-5)
	BEC 3311	Time Series Analysis and Forecasting	3 (3-0-6)
	BEC 3312	Business Intelligence	3 (3-0-6)
	BEC 3314	Cost and Benefit Analysis	3 (3-0-6)
	BEC 3410	International Economics	3 (3-0-6)
	BEC 3411	Senior Project I	3 (3-0-6)
	BEC 3412	Senior Project II	3 (3-0-6)
Business Concentration Courses			15 Credits
Students may apply for Internship, research-centric or Master pathway courses based on their overall academic performance and approval from the department committee. Alternatively, students may opt for a minor (with a certificate) in any major field by taking five business elective courses under the Bachelor of Business Administration program upon completion of the prerequisites (if any). Therefore, choose (1) one of the three options listed below or (2) to enroll in five "business concentration courses" also listed below.			
Business Economics Practicum Concentration*			
	BEC 4001	Business Economics Practicum I	3 (3-0-6)
	BEC 4002	Business Economics Practicum II	3 (3-0-6)
	BEC 4003	Business Economics Practicum III	3 (3-0-6)
	BEC 4004	Business Economics Practicum IV	3 (3-0-6)
	BEC 4005	Business Economics Practicum V	3 (3-0-6)
* Subject to the approval from the department			
Advanced Business Economics Concentration^			
	BEC 4401	Advanced Business Economics I	3 (3-0-6)
	BEC 4402	Advanced Business Economics II	3 (3-0-6)
	BEC 4403	Advanced Business Economics III	3 (3-0-6)
	BEC 4404	Advanced Business Economics IV	3 (3-0-6)
	BEC 4405	Advanced Business Economics V	3 (3-0-6)
^ Subject to the approval from the department			
Business Economics Research Concentration#			
	BEC 4411	Foundation in Business Economics Research	3 (3-0-6)
	BEC 4413	Business Economics Research I	6 (6-0-12)
	BEC 4414	Business Economics Research II	6 (6-0-12)
# Subject to the approval from the department			
Accountancy			
(Choose any five courses from the list:)			
	BAC 3602	Intermediate Accounting I	3 (3-0-6)
	BAC 3603	Intermediate Accounting II	3 (3-0-6)
	BAC 3608	Financial Report and Financial Statement Analysis	3 (3-0-6)
	BAC 3614	Taxation I	3 (3-0-6)
	BAC 3615	Taxation II	3 (3-0-6)
	BAC 3632	Cost Accounting	3 (3-0-6)
	BAC 3643	Auditing	3 (3-0-6)
	BAC 3644	Internal Control and Internal Audit	3 (3-0-6)
	BAC 4607	Advanced Accounting I	3 (3-0-6)
	BAC 4608	Advanced Accounting II	3 (3-0-6)
	BAC 4611	Seminar in Accounting	3 (3-0-6)
	BAC 4646	Accounting Information Systems	3 (3-0-6)

BAC 4647	Accounting Software Packages	3 (3-0-6)
Business Analytics Concentration for Non-Digital Business Management Major Students		
Choose between BDM 3305 or BDM 3424		
BDM 3302	Data Management	3 (2-2-5)
BDM 3303	Data Mining	3 (2-2-5)
BDM 3305	Big Data Analytics	3 (2-2-5)
BDM 3405	Database Systems	3 (2-2-5)
BDM 3415	Business Intelligence	3 (2-2-5)
BDM 3424	Innovative Technology Applications	3 (2-2-5)
Digital Business Transformation Concentration for Non-Digital Business Management Major Students		
BDM 3202	Digital Commerce	3 (2-2-5)
BDM 3206	Digital Business Process	3 (2-2-5)
BDM 3207	Systems Analysis and Design	3 (2-2-5)
BDM 3208	Enterprise Resource Planning	3 (2-2-5)
BDM 3424	Innovative Technology Applications	3 (2-2-5)
Enterprise Business and Analytics Concentration for Digital Business Management Major Students		
Choose between BDM 3305 or BDM 3424		
BDM 3206	Digital Business Process	3 (2-2-5)
BDM 3302	Data Management	3 (2-2-5)
BDM 3305	Big Data Analytics	3 (2-2-5)
BDM 3424	Innovative Technology Applications	3 (2-2-5)
BDM 3481	Digital Business Internship I	3 (0-30-0)
BDM 3482	Digital Business Internship II	3 (0-30-0)
Digital Business Practicum for Digital Business Management Major Students		
BDM 3481	Digital Business Internship I	3 (0-30-0)
BDM 3482	Digital Business Internship II	3 (0-30-0)
BDM 3483	Digital Business Internship III	3 (0-30-0)
BDM 3484	Digital Business Internship IV	3 (0-30-0)
BDM 3485	Digital Business Internship V	3 (0-30-0)
Finance Concentration for Finance and Risk Management Major Students		
BFR 3241	Financial Risk Management	3 (3-0-6)
BFR 3242	Portfolio Management and Analysis	3 (3-0-6)
BFR 4141	Business and Financial Data Analytics	3 (3-0-6)
BFR 4142	Startup Finance and FinTech	3 (3-0-6)
BFR 4143	Personal Wealth Management and Financial Planning	3 (3-0-6)
Finance Concentration for Non-Finance and Risk Management Major Students		
BFR 2231	Business Strategic Analysis and Sustainable Finance	3 (3-0-6)
BFR 3131	Investment Management and Analysis	3 (3-0-6)
BFR 3242	Portfolio Management and Analysis	3 (3-0-6)
BFR 4141	Business and Financial Data Analytics	3 (3-0-6)
BFR 4143	Personal Wealth Management and Financial Planning	3 (3-0-6)
Risk Management Concentration for Finance and Risk Management Major Students		
BFR 3243	Property and Casualty Insurance	3 (3-0-6)
BFR 3244	Life and Health Insurance	3 (3-0-6)
BFR 4144	Operations in Non-Life Insurance	3 (3-0-6)
BFR 4145	Operations in Life Insurance	3 (3-0-6)
BFR 4146	Enterprise Risk Management	3 (3-0-6)
Risk Management Concentration for Non-Finance and Risk Management Major Students		
BFR 3132	Risk Management and Insurance	3 (3-0-6)
BFR 3243	Property and Casualty Insurance	3 (3-0-6)
BFR 3244	Life and Health Insurance	3 (3-0-6)
BFR 4144	Operations in Non-Life Insurance	3 (3-0-6)
BFR 4145	Operations in Life Insurance	3 (3-0-6)
Global Human Resource Strategy Concentration for Global Business Management Major Students and Non- Global Business Management Students		
BGB 3311	Innovative Strategies for Talent Acquisition and	3 (3-0-6)

	BGB 3312	Retention Strategies for Effective Human Relationship Management	3 (3-0-6)
	BGB 3321	Human Resource Leadership for Sustainable Change	3 (3-0-6)
	BGB 3322	Human Resource Analytics and Decision-Making	3 (3-0-6)
	BGB 4311	Global Human Resource Capstone Practicum	3 (300 hours)
Global Supply Chain Management Concentration for Global Business Management Major Students and Non- Global Business Management Students			
	BGB 3313	Lean Manufacturing and Agile Supply Chain	3 (3-0-6)
	BGB 3314	International Transportation and Distribution Management	3 (3-0-6)
	BGB 3323	Warehousing and Material Handling	3 (3-0-6)
	BGB 3324	Procurement and Supply Management	3 (3-0-6)
	BGB 4312	Supply Chain Risk Management	3 (3-0-6)
Global Immersion Program Concentration for Global Business Management Major Students			
	BGB 3315	Global Context of Business	3 (3-0-6)
	BGB 3316	Special Topics in Global Business Management	3 (3-0-6)
	BGB 3325	Venture Opportunity	3 (3-0-6)
	BGB 3326	Industry Immersion Consulting	3 (3-0-6)
	BGB 4313	Global Business Management Internship	3 (300 hours)
Global Business Management Concentration for Non- Global Business Management Major Students			
	BGB 3211	Diversity and Culture in Global Environment	3 (3-0-6)
	BGB 3212	Marketing Strategies for Global Ventures	3 (3-0-6)
	BGB 3221	Global Business Strategies	3 (3-0-6)
	BGB 4211	Global Supply Chain Management	3 (3-0-6)
	BGB 4221	Strategic Decision Making	3 (3-0-6)
Hospitality and Tourism Management Concentration for Hospitality and Tourism Management major, Non- Hospitality and Tourism Management major, Other School students			
	BHT 3405	Kitchen Operation	3 (3-0-6)
	BHT 3421	Front Office and Rooms Management	3 (3-0-6)
	BHT 3422	Service Excellence	3 (3-0-6)
	BHT 3423	Professional Personality Development in Hospitality and Tourism	3 (3-0-6)
	BHT 3424	Restaurant Service	3 (3-0-6)
Global Immersion Program Concentration for Hospitality and Tourism Management Major Students			
	BHT 4306	Special Topic in Hospitality and Tourism Management I	3 (3-0-6)
	BHT 4307	Special Topic in Hospitality and Tourism Management II	3 (3-0-6)
	BHT 4308	Special Topic in Hospitality and Tourism Management III	3 (3-0-6)
	BHT 4309	Special Topic in Hospitality and Tourism Management IV	3 (3-0-6)
	BHT 4310	Special Topic in Hospitality and Tourism Management V	3 (3-0-6)
Digital Marketing Essential Concentration for both Marketing Major and Non-Marketing Major Students			
	BMK 3310	Digital Consumer Insights	3 (3-0-6)
	BMK 3311	Content Marketing	3 (3-0-6)
	BMK 3321	Essential MarTech	3 (3-0-6)
	BMK 4311	Digital Media Strategies	3 (3-0-6)
	BMK 4321	Digital Marketing in Practice	3 (3-0-6)
New Business Ventures" Concentration for both Marketing Major and Non-Marketing Major Students			
	BFR 4146	Enterprise Risk Management	3 (3-0-6)
	BGB 3310	Business Model Development	3 (3-0-6)

	BMK 3312	Retail Marketing and Merchandising	3 (3-0-6)
	BMK 3322	Innovations in Customer Experience and Sales	3 (3-0-6)
	BMK 4322	Commercialization	3 (3-0-6)
Marketing Concentration for Non-Marketing Major Students			
	BMK 3211	Brand Driven Innovation	3 (3-0-6)
	BMK 3212	Digital Marketing and Communications	3 (3-0-6)
	BMK 3213	Marketing Analysis and Strategy	3 (3-0-6)
	BMK 3322	Innovations in Customer Experience and Sales	3 (3-0-6)
	BMK 3412	Experiential and Lifestyle Marketing	3 (3-0-6)
Real Estate Concentration for Non- Real Estate Major Students			
	BRE 3201	Real Estate Business	3 (3-0-6)
	BRE 3204	Building Design and Construction Techniques	3 (3-0-6)
	BRE 3303	Commercial Property Management	3 (3-0-6)
	BRE 3304	Real Estate Finance and Investment Analysis	3 (3-0-6)
	BRE 4303	Real Estate Development and Project Management	3 (3-0-6)
Integrative Business			
Choose five of any major, minor or course below.			
	BBA 3410	Law for Business	3 (3-0-6)
	- 3419		
	BBA 3420	Health and Wellness for Business	3 (3-0-6)
	- 3429		
	BBA 3430	Biotechnology for Business	3 (3-0-6)
	- 3439		
	BBA 3440	Digital Technology for Business	3 (3-0-6)
	- 3449		
	BBA 3450	Engineering Technology for Business	3 (3-0-6)
	- 3459		
	BBA 3460	Design for Business	3 (3-0-6)
	- 3469		
	BBA 3470	Creative Arts for Business	3 (3-0-6)
	- 3479		
	BBA 3480	Language and Culture for Business	3 (3-0-6)
	- 3489		
	BBA 4401	Business Practicum I	3 (3-0-6)
	BBA 4402	Business Practicum II	3 (3-0-6)
	BBA 4403	Business Practicum III	3 (3-0-6)
	BBA 4404	Business Practicum IV	3 (3-0-6)
	BBA 4405	Business Practicum V	3 (3-0-6)
	BBA 4406	Business Practicum VI	3 (3-0-6)
	BFR 3211	Tax and Estate Planning	3 (3-0-6)
	BFR 3311	Insurance and Retirement Planning	3 (3-0-6)
	BGB 3416	Current Issues in Entrepreneurship and Innovation	3 (3-0-6)
	BGB 4411	Seminar in Global Business Management	3 (3-0-6)
	BGB 4412	Individual Research	3 (3-0-6)
	BHT 3405	Kitchen Operation	3 (3-0-6)
	BHT 3406	Catering, Bakery and Pastry	3 (3-0-6)
	BHT 3407	Introduction to Airline Business Management	3 (3-0-6)
	BHT 3408	Ground Operation Management	3 (3-0-6)
	BHT 3409	In-flight Service Management	3 (3-0-6)
	BHT 3411	Sustainable Tourism Management	3 (3-0-6)
	BHT 3412	Health and Wellness Tourism	3 (3-0-6)
	BHT 3414	Tour Guiding and Operation in Practice	3 (3-0-6)
	BHT 3415	Tourism Destination Management	3 (3-0-6)
	BHT 3421	Front Office and Rooms Management	3 (3-0-6)
	BHT 3422	Service Excellence	3 (3-0-6)
	BHT 3423	Professional Personality Development in Hospitality and Tourism	3 (3-0-6)
	BHT 3424	Restaurant Service	3 (3-0-6)
	BHT 4305	Current Issues in Hospitality and Tourism	3 (3-0-6)

BMK 3310	Digital Consumer Insights	3 (3-0-6)
BMK 3311	Content Marketing	3 (3-0-6)
BMK 3312	Retail Marketing and Merchandising	3 (3-0-6)
BMK 3321	Essential MarTech	3 (3-0-6)
BMK 3322	Innovations in Customer Experience and Sales	3 (3-0-6)
BMK 3412	Experiential and Lifestyle Marketing	3 (3-0-6)
BMK 4311	Digital Media Strategies	3 (3-0-6)
BMK 4321	Digital Marketing in Practice	3 (3-0-6)
BMK 4322	Commercialization	3 (3-0-6)
BMK 4411	Sustainability Marketing	3 (3-0-6)
BMK 4412	Marketing Internship	3 (300 Hours)
BRE 3411	Real Estate Marketing	3 (3-0-6)
BRE 4441	Independent Study in Real Estate	3 (3-0-6)
BRE 4451	Internship in Real Estate Business	3 (300 Hours)
BSB 3301	Project Management and Feasibility	3 (3-0-6)
BSB 3302	Strategic Brand Management and Brand Communications	3 (3-0-6)
BSB 3303	Business Intelligence and Strategic Decisions	3 (3-0-6)
BSB 3304	Strategic Supply Chain Management	3 (3-0-6)
BSB 3305	Integrative Marketing Management	3 (3-0-6)
BSB 3306	Integrative Strategic Management	3 (3-0-6)

C. Free Elective Courses

6 Credits

Students can take two free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any).

Subject Code	Subject Name
ACT 1601	Fundamentals of Financial Accounting
ACT 1602	Fundamentals of Financial Accounting
BAC 1103	Fundamentals of Financial Accounting
BAC 1601	Fundamentals of Financial Accounting
BAC 1602	Fundamentals of Financial Accounting I
BAC 1603	Fundamentals of Financial Accounting II
BAC 1621	Accounting for Economists
BBA 1002	Microeconomics
BBA 1004	Essential Marketing for Entrepreneurs
BBA 1005	Essential Finance for Entrepreneurs
BBA 1006	Essential Economics for Entrepreneurs
BBA 1007	Data Analytics for Entrepreneurs
BBA 1014	The Art of Data for Business
BBA 1020	Design Thinking Essentials
BBA 1021	Design Thinking Workshop
BBA 1022	Building CEO and Leadership Essentials
BBA 1023	Building CEO and Leadership Workshop
BBA 1024	Entrepreneurial Marketing Essentials
BBA 1025	Entrepreneurial Marketing Workshop
BBA 1028	The Art of Data Essentials
BBA 1029	The Art of Data Workshop
BBA 2001	Human Behavior
BEC 2200	Introduction to Economics
BEC 1101	Microeconomics I
BEC 1201	Macroeconomics I
BG 1301	Fundamentals of Statistics
BG 1400	Business Law I
BG 1401	Business Law II
ECO 2202	Macroeconomics
ECO 2531	Principles of Microeconomics
ECO 2541	Principles of Macroeconomics
GE 1101	Thai Civilization
GE 1103	Thai Historical Perspectives
GE 1203	Society, Politics and Economics
GE 1207	Fundamental Psychology

GE 1403	Thai Language for Professional Communication (For Thai students)
GE 1404	Thai Culture and Tradition
GE 1405	Thai Language and Culture (for International students)
GE 1408	Thai usage (for students who graduated from international schools)
GS 1108	Applied Mathematics
MA 1000	Business Mathematics and Statistics
SA 1201	Statistics I
SA 2200	Statistics II

In addition to the above courses, students are not allowed to enroll in courses from previous curriculum of the Martin de Tours School of Management and Economics unless they have obtained a written permission from the School. These courses are designated with the following letter codes: ACT, BIS, ECO, FIN, HTM, IBM, IDM, IML, INS, MGT, MIS, MKT, and REM.

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BBA 1110	Seminar in Business I	1 (1-0-2)
BBA 1111	Business Essential: A Design Thinking Approach	3 (3-0-6)
BBA 1112	Digital Literacy	3 (2-2-5)
BBA 1113	Mathematics for Business	3 (3-0-6)
BEC 1110	Microeconomics I	3 (3-0-6)
	One General Elective Course	3 (3-0-6)
Total	19 (17-5-37)	

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BBA 1120	Seminar in Business II	1 (1-0-2)
BBA 1121	Marketing in Practice	3 (3-0-6)
BBA 1122	Statistics for Business	3 (3-0-6)
BBA 1123	Management in Dynamic Context	3 (3-0-6)
BBA 1125	Fundamentals of Financial Accounting	3 (3-0-6)
BEC 1210	Macroeconomics I	3 (3-0-6)
Total	19 (18-3-38)	

Second Year

First Semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
BBA 2110	Seminar in Business III	1 (1-0-2)
BBA 2112	Data Analytics Essentials	3 (2-2-5)
BBA 2114	Financial Environment and Financial Planning	3 (3-0-6)
BBA 2115	Fundamentals of Managerial Accounting	3 (3-0-6)
GE 2202	Ethics	3 (3-0-6)
Total	16 (14-5-31)	

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
BBA 2120	Seminar in Business IV	1 (1-0-2)
BBA 2124	Corporate Financial Management	3 (3-0-6)
BEC 2310	Calculus	3 (3-0-6)
BEC 2311	Applied Econometrics	3 (3-0-6)
BEC 2410	Economic Reasoning	3 (3-0-6)
Total	16 (15-3-32)	

Third Year**First Semester**

Course Code	Course Title	Credits
BEC 3010	Professional Seminar in Business Economics	1 (1-0-2)
BEC 3110	Microeconomics II	3 (3-0-6)
BEC 3112	Managerial Economics	3 (3-0-6)
BEC 3210	Macroeconomics II	3 (3-0-6)
BEC 3311	Time Series Analysis and Forecasting	3 (3-0-6)
BEC 3312	Business Intelligence	3 (3-0-6)
Total 16 (16-0-38)		

Second Semester

Course Code	Course Title	Credits
BEC 3111	Game Theory	3 (3-0-6)
BEC 3301	Computer Tools for Economic Analysis	3 (2-2-5)
BEC 3314	Cost and Benefit Analysis	3 (3-0-6)
BEC 3411	Senior Project I	3 (3-0-6)
BEC 3410	International Economics	3 (3-0-6)
Total 15 (14-2-29)		

Fourth Year**First Semester**

Course Code	Course Title	Credits
BEC 3113	Industrial Organization	3 (3-0-6)
BEC 3412	Senior Project II	3 (3-0-6)
	One General Elective Course	3 (3-0-6)
	One General Elective Course	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
Total 15 (15-0-30)		

Second Semester

Course Code	Course Title	Credits
	Five Concentration Courses	15 (15-0-30)
	One Free Elective Course	3 (3-0-6)
Total 18 (18-0-36)		

BACHELOR OF BUSINESS ADMINISTRATION PROGRAM IN SUSTAINABLE BUSINESS MANAGEMENT

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Business Administration Program in Sustainable Business Management upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Have to meet the minimum English Proficiency requirement specified in one of the following criteria
- Have obtained a satisfactory pass in MSME assessment tests, eg. basic business knowledge and entrepreneurial skills.

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

- 1) Morally sound, committed to acting justly and open to further growth.
- 2) Have knowledge of accounting principles, possess analytical tools and practical knowledge and skills to make sound accounting decisions.
- 3) Flexible, competent and well-rounded in confronting and solving accounting, financing, and related business problems.
- 4) Able to apply accounting principles in the practice of their profession.
- 5) Able to work as a team and motivate others to work.
- 6) Have positive attitude towards the accounting professions, interpersonal, calculation, analytical, communication and presentation skills, and IT skills.

Bachelor of Business Administration Program in Sustainable Business Management

Curriculum Structure

Total number of credits	124	Credits
A. General Education Courses	24	Credits
Compulsory Courses	15	Credits
Elective Courses	9	Credits
B. Specialized Courses	94	Credits
Core Courses	46	Credits
Major Required Courses	30	Credits
Business Electives Courses	18	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses

Compulsory Courses		15	Credits
ELE 1001	Communicative English I	3	(2-3-6)
ELE 1002	Communicative English II	3	(2-3-6)
ELE 2000	Academic English	3	(2-3-6)
ELE 2001	Advanced Academic English	3	(2-3-6)
GE 2202	Ethics	3	(3-0-6)
Elective Courses		9	Credits
Choose any three courses from the list:			
AD 3280	Inspiration, Lifestyles and Popular Culture	3	(2-2-5)
ADX 1101	Art and Design Appreciation	3	(3-0-6)
ADX 1102	Design Culture Exposure	2	(0-4-4)
ADX 1140	Journey for Urban Art and Culture Exploration	3	(3-0-6)
ADX 1240	Artist Studio (Painting and Rendering)	3	(2-2-5)
ADX 1303	Design Communication	3	(2-2-5)
ADX 1304	Design Fundamental	3	(2-2-5)
CA 1110	Art and Beauty of Living	3	(2-2-5)
CA 1201	Creative Photography	3	(2-2-5)
CA 1202	Computer Graphic for Presentation Design for Pitching	3	(2-2-5)
CSX 3001	Fundamentals of Computer Programming	3	(3-0-6)
EG 1001	Digital Literacy	3	(3-0-6)
EG 1002	Application Design for Everyone Literacy	3	(3-0-6)
EG 1003	Introduction to Internet of Things (IoTs) Literacy	3	(3-0-6)
EG 1004	Artificial Intelligence for beginners	3	(3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3	(3-0-6)
FT 1003	Food Factory Explore Trip (Special course)	3	(3-0-6)
FT 1004A	Food-Agri-Bio Tech Trend Update (Part A)	2	(2-0-4)
FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1	(1-0-2)
FT 1005	Sustainability and Circular Living	3	(3-0-6)
FT 2003A	Foods Changing the World (Part A)	2	(2-0-4)
FT 2003B	Foods Changing the World (Part B)	2	(2-0-4)
FT 2004	Drinkology: The Art of drinking	3	(3-0-6)
FT 2005	Food Zodiac	3	(3-0-6)
GE 1104	Thai Historical Perspectives	3	(3-0-6)
GE 1107	Perspectives in Politics and Economy	3	(3-0-6)
GE 1204	Physical Education	1	(0-2-1)
GE 1205	ASEAN Ways	3	(3-0-6)
GE 1209	Psychology Application in Daily Life	3	(3-0-6)
GE 1302	Ecology and Sustainability	3	(3-0-6)
GE 1303	Science for Sustainable Future	2	(2-0-4)
GE 1403	Thai Language for Professional Communication (For Thai students)	3	(3-0-6)
GE 1409	Thai Language for Intercultural Communication	3	(3-0-6)

	(For Non-Thai students)	
GE 1410	Thai for Profession Communication	2 (2-0-4)
	(For Thai students)	
GE 1411	Thai Language for Multicultural Communication	2 (2-0-4)
	(For Non-Thai students)	
GE 1412	Introductory Thai Usage (For Thai students from International Program)	2 (2-0-4)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
LLB 1501	Business Law (For Non-Law students)	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law (For Non-Law students)	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business (For Non-Law students)	3 (3-0-6)
LLB 4806	Business and Human Rights (For Non-Law students)	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 2531	Music Business	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support (For Non-Nursing students)	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior (For Non-Nursing students)	3 (3-0-6)

B. Specialized Courses

Core Courses		46	Credits
BSB 1101	Design Thinking in Business	3	(3-0-6)
BSB 1102	Thinking as an Economist	3	(3-0-6)
BSB 1103	Digital Literacy	3	(2-2-5)
BSB 1104	Quantitative Techniques in Business	3	(3-0-6)
BSB 1105	Seminar in Sustainable Business Management I	1	(1-0-2)
BSB 1107	Data Analytics and Visualization	3	(2-2-5)
BSB 1108	Marketing in Practice	3	(3-0-6)
BSB 1109	Navigating Global Business Environment	3	(3-0-6)
BSB 1110	Intercultural Communication and Negotiation	3	(3-0-6)
BSB 1111	Accounting for Professionals	3	(3-0-6)
BSB 2101	Consumer Behaviors and Insights	3	(3-0-6)
BSB 2102	Management in Dynamic Contexts	3	(3-0-6)
BSB 2103	Operations and Sustainable Supply Chain Management	3	(3-0-6)
BSB 2104	Business Research for Practitioners	3	(3-0-6)
BSB 2301	Finance for Sustainable Business	3	(3-0-6)
BSB 2302	Essential Strategies for Sustainable Business	3	(3-0-6)

Major Required Courses	30 Credits

Major: Corporate Sustainability

BSB 1106	Seminar in Sustainable Business Management II	1 (1-0-2)
BSB 2105	Seminar in Sustainable Business Management III	1 (1-0-2)
BSB 2106	Seminar in Sustainable Business Management IV	1 (1-0-2)
BSB 2303	Business Sustainability Management	3 (3-0-6)
BSB 2304	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
BSB 3101	Sustainable Entrepreneurship	3 (3-0-6)
BSB 3301	Project Management and Feasibility	3 (3-0-6)
BSB 3302	Strategic Brand Management and Brand Communications	3 (3-0-6)
BSB 3303	Business Intelligence and Strategic Decisions	3 (3-0-6)
BSB 3304	Strategic Supply Chain Management	3 (3-0-6)
BSB 3305	Integrative Marketing Management	3 (3-0-6)
BSB 3306	Integrative Strategic Management	3 (3-0-6)

Integrative Business Management

This major offers flexibility by allowing students to select up to 18 credits (equivalent to 6 courses), in addition to the four major required courses (12 credits) listed below. Students can choose from a diverse range of business-related courses, including the possibility of transferring credits earned from other accredited institutions. This feature facilitates a seamless transition for students who wish to transfer credits, thereby optimizing their educational investment.

BSB 1106	Seminar in Sustainable Business Management II	1 (1-0-2)
BSB 2105	Seminar in Sustainable Business Management III	1 (1-0-2)
BSB 2106	Seminar in Sustainable Business Management IV	1 (1-0-2)
BSB 2303	Business Sustainability Management	3 (3-0-6)
BSB 2304	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
BSB 3101	Sustainable Entrepreneurship	3 (3-0-6)

Business Elective Courses	18 Credits

Students can take business elective courses of 18 credits from any major fields under the Bachelor of Business Administration program upon completion of the prerequisites (if any). Choose 6 courses from the list below:

BAC 3602	Intermediate Accounting I	3 (3-0-6)
BAC 3603	Intermediate Accounting II	3 (3-0-6)
BAC 3608	Financial Report and Financial Statement Analysis	3 (3-0-6)
BAC 3614	Taxation I	3 (3-0-6)
BAC 3615	Taxation II	3 (3-0-6)
BAC 3632	Cost Accounting	3 (3-0-6)
BAC 3643	Auditing	3 (3-0-6)
BAC 3644	Internal Control and Audit	3 (3-0-6)
BAC 4607	Advanced Accounting I	3 (3-0-6)
BAC 4608	Advanced Accounting II	3 (3-0-6)
BAC 4611	Seminar in Accounting	3 (3-0-6)
BAC 4646	Accounting Information Systems	3 (3-0-6)
BAC 4647	Accounting Software Packages	3 (3-0-6)
BBA 3410	Law for Business	3 (3-0-6)
- 3419		
BBA 3420	Health and Wellness for Business	3 (3-0-6)
- 3429		
BBA 3430	Biotechnology for Business	3 (3-0-6)
- 3439		
BBA 3440	Digital Technology for Business	3 (3-0-6)
- 3449		
BBA 3450	Engineering Technology for Business	3 (3-0-6)
- 3459		
BBA 3460	Design for Business	3 (3-0-6)
- 3469		
BBA 3470	Creative Arts for Business	3 (3-0-6)
- 3479		
BBA 3480	Language and Culture for Business	3 (3-0-6)

- 3489

BDM 3201	Digital Business	3 (2-2-5)
BDM 3202	Digital Commerce	3 (2-2-5)
BDM 3203	Cybersecurity	3 (2-2-5)
BDM 3204	Enterprise Resource Planning	3 (2-2-5)
BDM 3205	Information Systems Strategy, Management, and Acquisition	3 (2-2-5)
BDM 3301	Data Analytics Fundamentals	3 (2-2-5)
BDM 3302	Data Management	3 (2-2-5)
BDM 3303	Data Mining	3 (2-2-5)
BDM 3304	Systems Analysis and Design	3 (2-2-5)
BDM 3305	Big Data Analytics	3 (2-2-5)
BDM 3401	Artificial Intelligence (AI)	3 (2-2-5)
BDM 3402	Blockchain and Financial Technology	3 (2-2-5)
BDM 3403	Robotic Process Automation	3 (2-2-5)
BDM 3404	Data Structures and Algorithms	3 (2-2-5)
BDM 3405	Database Systems	

(Students in Digital Business Management Specialization must take this 3-credit course as a foundation of data science courses)

BDM 3406	Mobile Application Development	3 (2-2-5)
BDM 3407	Web Application Development	3 (2-2-5)
BDM 3408	Blockchain Development	3 (2-2-5)
BDM 3409	Game Design and Development	3 (2-2-5)
BDM 3410	Low-code Development	3 (2-2-5)
BDM 3411	Software Engineering	3 (2-2-5)
BDM 3412	UI/UX Design	3 (2-2-5)
BDM 3413	eSports	3 (2-2-5)
BDM 3414	Customer Experience Management	3 (2-2-5)
BDM 3415	Business Intelligence	3 (2-2-5)
BDM 3416	Data Engineering	3 (2-2-5)
BDM 3417	Data Storytelling	3 (2-2-5)
BDM 3418	Digital Marketing Analytics	3 (2-2-5)
BDM 3419	Text Mining	3 (2-2-5)
BDM 3420	Cloud Computing	3 (2-2-5)
BDM 3421	Internet of Things	3 (2-2-5)
BDM 3422	IT Infrastructure	3 (2-2-5)
BDM 3423	Penetration Testing	3 (2-2-5)
BDM 3481	Digital Business Internship I	3 (0-30-0)
BDM 3482	Digital Business Internship II	3 (0-30-0)
BDM 3498	Business Analytics in Real Estate	3 (2-2-5)
BDM 3499	Business Analytics and Global Strategies	3 (2-2-5)
BDM 4400	Selected topics in Digital Business Management	3 (2-2-5)

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BEC 1302	Basic Probability Theory and Statistics	3 (3-0-6)
BEC 1401	Thinking as an Economist	3 (3-0-6)
BEC 2102	Economic Decision Making for Management	3 (3-0-6)
BEC 2303	Fundamentals of Econometrics	3 (3-0-6)
BEC 2304	Business and Economic Forecasting	3 (3-0-6)
BEC 3101	Firms, Competition and Market Structure	3 (3-0-6)
BFN 3212	Financial Reporting and Analysis	3 (3-0-6)
BFN 3213	Business and Economic Analysis for Decision Making	3 (3-0-6)
BFN 3220	Investment Strategy and Applied Valuation	3 (3-0-6)
BFN 3222	Financial Modeling and Analysis Tools	3 (3-0-6)
BFN 3412	Insurance and Retirement Planning	3 (3-0-6)
BFN 3421	Financial Feasibility Planning	3 (3-0-6)
BFN 3422	Tax and Estate Planning	3 (3-0-6)
BFN 3423	Business Finance for Entrepreneurs	3 (3-0-6)
BFN 3431	Behavioral Finance	3 (3-0-6)
BFN 4411	Fixed Income Securities	3 (3-0-6)

BFN 4412	Real Estate Investment and Entrepreneurs	3 (3-0-6)
BFN 4421	Portfolio Management and Analysis	3 (3-0-6)
BFN 4422	Individual Research in Finance	3 (3-0-6)
BFN 4431	Startup Finance and FinTech	3 (3-0-6)
BFN 4432	Investment Banking	3 (3-0-6)
BFN 4433	Internship in Finance	3 (300 hours)
BHT 3201	Introduction to Hospitality and Tourism Management	3 (3-0-6)
BHT 3202	Consumer Behavior in Hospitality and Tourism	3 (3-0-6)
BHT 3203	Food and Beverage Management	3 (3-0-6)
BHT 3204	Personality and Communication in Hospitality and Tourism	3 (3-0-6)
BHT 3205	Marketing in Hospitality and Tourism	3 (3-0-6)
BHT 3301	Human Resource Management in Hospitality and Tourism	3 (3-0-6)
BHT 3401	Event Management	3 (3-0-6)
BHT 3402	Rooms Division Management	3 (3-0-6)
BHT 3403	Service Management	3 (3-0-6)
BHT 3404	Food and Beverage Service	3 (3-0-6)
BHT 3405	Kitchen Operation	3 (3-0-6)
BHT 3406	Catering, Bakery and Pastry	3 (3-0-6)
BHT 3407	Introduction to Airline Business Management	3 (3-0-6)
BHT 3408	Ground Operation Management	3 (3-0-6)
BHT 3409	In-flight Service Management	3 (3-0-6)
BHT 3410	Perfecting Personality for Career and Life	3 (3-0-6)
BHT 3411	Sustainable Tourism Management	3 (3-0-6)
BHT 3412	Health and Wellness Tourism	3 (3-0-6)
BHT 3413	Cruise Ship Tourism	3 (3-0-6)
BHT 3414	Tour Guiding and Operation in Practice	3 (3-0-6)
BHT 3415	Tourist Destination Management	3 (3-0-6)
BHT 3416	Introduction to MICE Business Management	3 (3-0-6)
BHT 4301	Information Technology in Hospitality and Tourism	3 (3-0-6)
BHT 4302	Operation and Leadership in Hospitality and Tourism	3 (3-0-6)
BHT 4303	Strategic Management in Hospitality and Tourism	3 (3-0-6)
BHT 4304	Internship in Hospitality and Tourism Industry	3 (400 hours)
BHT 4305	Current Issues in Hospitality and Tourism	3 (3-0-6)
BIE 3211	Diversity and Culture in Global Environment	3 (3-0-6)
BIE 3212	Marketing Strategies for Global Ventures	3 (3-0-6)
BIE 3213	Design Thinking and Innovation Strategies	3 (3-0-6)
BIE 3224	Managing Multinational Enterprise	3 (3-0-6)
BIE 3225	Global Trade in the Digital Era	3 (3-0-6)
BIE 3401	Global Market Behavior	3 (3-0-6)
BIE 3402	Global Business Communication	3 (3-0-6)
BIE 3403	Global Pricing Strategy	3 (3-0-6)
BIE 3404	Global Product and Brand Strategy	3 (3-0-6)
BIE 3405	International Relations	3 (3-0-6)
BIE 3406	Family Business Management	3 (3-0-6)
BIE 3407	Social Entrepreneurship	3 (3-0-6)
BIE 3408	Digital Entrepreneurship	3 (3-0-6)
BIE 3409	Project Management	3 (3-0-6)
BIE 3410	Creative Industries Entrepreneurship	3 (3-0-6)
BIE 3411	Cross Cultural Communication, Conflict and Negotiation	3 (3-0-6)
BIE 3412	Leadership in the New Era	3 (3-0-6)
BIE 3413	Entrepreneurial Commercialization	3 (3-0-6)
BIE 3414	Legal Aspects of Entrepreneurship	3 (3-0-6)
BIE 3415	Entrepreneurial Strategic Management	3 (3-0-6)
BIE 3416	Growth Mindset and Sustaining Organization	3 (3-0-6)
BIE 4224	Strategic Decision Making	3 (3-0-6)

BIE 4315	International Management Consulting	3 (3-0-6)
BIE 4326	Global Capstone Practicum	6 (400 hours)
BIE 4327	Venture Opportunity	6 (3-0-6)
BIE 4401	Global Context of Business	3 (3-0-6)
BIE 4402	Special Topics in International Business	3 (3-0-6)
BIE 4403	Individual Research	3 (3-0-6)
BIE 4404	International Business Management Internship	3 (300 hours)
BIE 4415	Current Issues in Entrepreneurship and Innovation	3 (3-0-6)
BMK 3201	Consumer Behavior	3 (3-0-6)
BMK 3202	Digital Marketing	3 (3-0-6)
BMK 3203	Brand Driven Innovation	3 (3-0-6)
BMK 3204	Competitive Analysis and Strategy	3 (3-0-6)
BMK 3305	Integrated Marketing Communications	3 (3-0-6)
BMK 3306	Marketing Channels and Logistics	3 (3-0-6)
BMK 3407	Sales and Customer Relationship Strategies	3 (3-0-6)
BMK 3408	Sales Promotion and Display Strategies	3 (3-0-6)
BMK 3409	Creative Strategy in IMC Campaign	3 (3-0-6)
BMK 3410	Digital Consumer Insights	3 (3-0-6)
BMK 3411	Content Marketing	3 (3-0-6)
BMK 3412	Experiential Marketing	3 (3-0-6)
BMK 3413	Lifestyle Marketing	3 (3-0-6)
BMK 4201	Marketing Management	3 (3-0-6)
BMK 4302	Contemporary Issues in Marketing	3 (3-0-6)
BMK 4303	Marketing Research	3 (3-0-6)
BMK 4304	Marketing Metrics and Decisions	3 (3-0-6)
BMK 4401	Sustainability Marketing	3 (3-0-6)
BMK 4402	Service Marketing	3 (3-0-6)
BMK 4403	Digital Media Strategies	3 (3-0-6)
BMK 4404	Digital Marketing in Practice	3 (3-0-6)
BMK 4405	Marketing Internship	3 (300 hours)
BRE 3201	Real Estate Business	3 (3-0-6)
BRE 3202	Real Estate Law	3 (3-0-6)
BRE 3203	Real Estate Economics	3 (3-0-6)
BRE 3204	Building Design and Construction Techniques	3 (3-0-6)
BRE 3205	Real Estate Development	3 (3-0-6)
BRE 3301	Real Estate Finance	3 (3-0-6)
BRE 3302	Real Estate Appraisal	3 (3-0-6)
BRE 3303	Commercial Property Management	3 (3-0-6)
BRE 3411	Real Estate Marketing	3 (3-0-6)
BRE 3412	Sustainability in Real Estate	3 (3-0-6)
BRE 3413	Real Estate Investment Alternatives	3 (3-0-6)
BRE 3414	Facilities Operations and Management	3 (3-0-6)
BRE 3421	Contemporary Issues in Real Estate Appraisal	3 (3-0-6)
BRE 3422	Implications of Real Estate Finance and Appraisal	3 (3-0-6)
BRE 4301	Real Estate Investment Analysis	3 (3-0-6)
BRE 4302	Real Estate Project Management	3 (3-0-6)
BRE 4411	Advanced Real Estate Investment Analysis	3 (3-0-6)
BRE 4412	Contemporary Issues in Real Estate Business	3 (3-0-6)
BRE 4421	Advanced Real Estate Appraisal	3 (3-0-6)
BRE 4422	Valuation for Special Purpose	3 (3-0-6)
BRE 4431	Contemporary Issues in Commercial Property Management	3 (3-0-6)
BRE 4441	Independent Study in Real Estate	3 (3-0-6)
BRE 4451	Internship in Real Estate Business	3 (300 hours)
BRE 4452	Internship in Real Estate Appraisal	3 (300 hours)
BRM 3211	Risk Management and Insurance	3 (3-0-6)
BRM 3212	Insurance Law	3 (3-0-6)
BRM 3221	Property Insurance	3 (3-0-6)
BRM 3222	Casualty Insurance	3 (3-0-6)

BRM 3223	Life Assurance	3 (3-0-6)
BRM 3401	Engineering Insurance	3 (3-0-6)
BRM 3402	Marine and Aviation Insurance	3 (3-0-6)
BRM 3403	Survey and Claim Management in Non-Life Insurance	3 (3-0-6)
BRM 3404	Finance and Accounting in Non-Life Insurance	3 (3-0-6)
BRM 3405	Life Assurance Underwriting	3 (3-0-6)
BRM 3406	Life Assurance Mathematics	3 (3-0-6)
BRM 3407	Claim Administration in Life Assurance	3 (3-0-6)
BRM 3408	Life Assurance Agency Administration	3 (3-0-6)
BRM 4312	Reinsurance	3 (3-0-6)
BRM 4314	Insurance Operations	3 (3-0-6)
BRM 4321	Marketing in Insurance	3 (3-0-6)
BRM 4322	Seminar in Risk Management and Insurance	3 (3-0-6)
BRM 4401	Financial Concepts for Life Assurance	3 (3-0-6)
BRM 4403	Business Analytics and Insurance Management	3 (3-0-6)
BRM 4404	Information Management in Insurance	3 (3-0-6)
BRM 4405	Risk Control and Risk Financing	3 (3-0-6)
BRM 4406	Independent Study in Risk Management and Insurance	3 (3-0-6)
BRM 4407	Internship in Risk Management and Insurance	3 (240 hours)
BSB 3401	Independent Study I	3 (3-0-6)
BSB 3402	Independent Study II	3 (3-0-6)
BSB 3403	Independent Study III	3 (3-0-6)
BSB 3404	Special Topics in Sustainable Business Management I	3 (3-0-6)
BSB 3405	Special Topics in Sustainable Business Management II	3 (3-0-6)
BSB 3406	Special Topics in Sustainable Business Management III	3 (3-0-6)
BSB 3407	Advanced Seminar in Sustainable Business Management I	3 (3-0-6)
BSB 3408	Advanced Seminar in Sustainable Business Management II	3 (3-0-6)
BSB 3409	Advanced Seminar in Sustainable Business Management III	3 (3-0-6)
BSB 3410	Educational Business	3 (3-0-6)
BSB 3411	Public and Business Administration	3 (3-0-6)
BSB 3412	Theories and Current Issues in Finance	3 (3-0-6)
BSB 3413	Theories and Current Issues in Management	3 (3-0-6)
BSB 3414	Theories and Current Issues in Marketing	3 (3-0-6)
BSB 3415	Theories and Current Issues in Hospitality and Tourism Management	3 (3-0-6)
BSB 3416	Theories and Current Issues in Logistics Management	3 (3-0-6)
BSB 3417	Theories and Current Issues in Accounting	3 (3-0-6)
BSB 3418	Theories and Current Issues in Digital Business Management	3 (3-0-6)
BSB 3419	Theories and Current Issues in Real Estate Management	3 (3-0-6)
BSB 3420	Theories and Current Issues in Insurance	3 (3-0-6)
BSB 3421	Theories and Current Issues in Economics	3 (3-0-6)
BSB 3422	Practical Sustainability Insights	3 (3-0-6)
BSB 3423	Corporate Sustainability Project	3 (3-0-6)
BSB 3424	Innovative Sustainability Solutions	3 (3-0-6)
BSB 3425	Sustainable Business Management Internship I	3 (90 hours)
BSB 3426	Sustainable Business Management Internship II	3 (90 hours)
BSB 3427	Sustainable Business Management Internship III	3 (90 hours)
BSB 3428	Sustainable Business Management Internship IV	3 (90 hours)
BSB 3429	Sustainable Business Management Internship V	3 (90 hours)

BSB 3430	Sustainable Business Management Internship VI	3 (90 hours)
BSB 3431	Business Communication Excellence for Sustainability	3 (3-0-6)
BSB 3432	Entrepreneurship and Small Business Management for Sustainability	3 (3-0-6)
BSB 3433	Digital Literacy and Sustainable Business Technologies	3 (3-0-6)
BSB 3434	Microsoft Office Essentials for Corporate Sustainability	3 (3-0-6)
BSB 3435	Sustainable Project Management with PMI Preparedness	3 (3-0-6)
BSB 3501-3509	Special Topics in Business	3 (3-0-6)
BSB 3601-3609	Special Topics in Marketing	3 (3-0-6)
BSB 3701-3709	Special Topics in Management	3 (3-0-6)
BSB 3801-3809	Education for Business	3 (3-0-6)
BSB 3901-3909	Multidisciplinary Business Studies	3 (3-0-6)
BSC 3201	Logistics and Supply Chain Management	3 (3-0-6)
BSC 3202	Supply Chain Innovation and Technology	3 (3-0-6)
BSC 3203	Lean Manufacturing and Agile Supply Chain	3 (3-0-6)
BSC 3204	International Transportation and Distribution Management	3 (3-0-6)
BSC 3205	Warehousing and Material Handling	3 (3-0-6)
BSC 3301	Business Analytics	3 (3-0-6)
BSC 3401	Industrial Engineering Management	3 (3-0-6)
BSC 3402	Quantitative Analysis	3 (3-0-6)
BSC 4302	Procurement and Supply Management	3 (3-0-6)
BSC 4303	Supply Chain Risk Management	3 (3-0-6)
BSC 4304	Strategic Supply Chain Management	3 (3-0-6)
BSC 4305	Seminar in Supply Chain	3 (3-0-6)
BSC 4403	Internship in Supply Chain	3 (300 hours)
BSC 4404	Information Technology in Supply Chain	3 (3-0-6)

C. Free Elective Courses

6 Credits

Students can take free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any). However, they are certain courses that the Martin de Tours School of Management and Economics does not allow the students to enroll as follows:

Subject Code	Subject Name
ACT 1601	Fundamentals of Financial Accounting
ACT 1602	Fundamentals of Financial Accounting
BAC 1103	Fundamentals of Financial Accounting
BAC 1601	Fundamentals of Financial Accounting
BAC 1602	Fundamentals of Financial Accounting I
BAC 1603	Fundamentals of Financial Accounting II
BAC 1621	Accounting for Economists
BBA 1002	Microeconomics
BBA 1004	Essential Marketing for Entrepreneurs
BBA 1005	Essential Finance for Entrepreneurs
BBA 1006	Essential Economics for Entrepreneurs
BBA 1007	Data Analytics for Entrepreneurs
BBA 1014	The Art of Data for Business
BBA 1020	Design Thinking Essentials
BBA 1021	Design Thinking Workshop
BBA 1022	Building CEO and Leadership Essentials
BBA 1023	Building CEO and Leadership Workshop

BBA 1024	Entrepreneurial Marketing Essentials
BBA 1025	Entrepreneurial Marketing Workshop
BBA 1028	The Art of Data Essentials
BBA 1029	The Art of Data Workshop
BBA 2001	Human Behavior
BEC 2200	Introduction to Economics
BEC 1101	Microeconomics I
BEC 1201	Macroeconomics I
BG 1301	Fundamentals of Statistics
BG 1400	Business Law I
BG 1401	Business Law II
ECO 2202	Macroeconomics
ECO 2531	Principles of Microeconomics
ECO 2541	Principles of Macroeconomics
GE 1101	Thai Civilization
GE 1103	Thai Historical Perspectives
GE 1203	Society, Politics and Economics
GE 1207	Fundamental Psychology
GE 1403	Thai Language for Professional Communication (For Thai students)
GE 1404	Thai Culture and Tradition
GE 1405	Thai Language and Culture (for International students)
GE 1408	Thai usage (for students who graduated from international schools)
GS 1108	Applied Mathematics
MA 1000	Business Mathematics and Statistics
SA 1201	Statistics I
SA 2200	Statistics II

In addition to the above courses, students are not allowed to enroll in courses from previous curriculum of the Martin de Tours School of Management and Economics unless they have obtained a written permission from the School. These courses are designated with the following letter codes: ACT, BIS, ECO, FIN, HTM, IBM, IDM, IML, INS, MGT, MIS, MKT, and REM.

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BSB 1101	Design Thinking in Business	3 (3-0-6)
BSB 1102	Thinking as an Economist	3 (3-0-6)
BSB 1103	Digital Literacy	3 (2-2-5)
BSB 1105	Seminar in Sustainable Business Management I	1 (1-0-2)
	One General Elective Course (1/3)	3 (3-0-6)
Total 16 (14-5-31)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BSB 1104	Quantitative Techniques in Business	3 (3-0-6)
BSB 1106	Seminar in Sustainable Business Management II	1 (1-0-2)
BSB 1107	Data Analytics and Visualization	3 (2-2-5)
	One General Elective Course (2/3)	3 (3-0-6)
	One General Elective Course (3/3)	3 (3-0-6)
Total 16 (14-5-31)		

**Second Year
First Semester**

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
BSB 1108	Marketing in Practice	3 (3-0-6)
BSB 1109	Navigating Global Business Environment	3 (3-0-6)
BSB 1110	Intercultural Communication and Negotiation	3 (3-0-6)
BSB 1111	Accounting for Professionals	3 (3-0-6)
BSB 2105	Seminar in Sustainable Business Management III	1 (1-0-2)
Total		16 (15-3-32)

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
BSB 2101	Consumer Behaviors and Insights	3 (3-0-6)
BSB 2102	Management in Dynamic Contexts	3 (3-0-6)
BSB 2103	Operations and Sustainable Supply Chain Management	3 (3-0-6)
BSB 2104	Business Research for Practitioners	3 (3-0-6)
BSB 2106	Seminar in Sustainable Business Management IV	1 (1-0-2)
Total		16 (15-3-32)

**Third Year
First Semester**

Course Code	Course Title	Credits
GE 2202	Ethics	3 (3-0-6)
BSB 2301	Finance for Sustainable Business	3 (3-0-6)
BSB 2302	Essential Strategies for Sustainable Business	3 (3-0-6)
BSB 2303	Business Sustainability Management	3 (3-0-6)
BSB 2304	Developing Leadership and Sustainability Mindsets	3 (3-0-6)
Total		15 (15-3-30)

Second Semester

Course Code	Course Title	Credits
Major: Corporate Sustainability		
BSB 3301	Project Management and Feasibility	3 (3-0-6)
BSB 3302	Strategic Brand Management and Brand Communications	3 (3-0-6)
BSB 3303	Business Intelligence and Strategic Decisions	3 (3-0-6)
	One Business Elective Course (1/6)	3 (3-0-6)
	One Free Elective Course (1/2)	3 (3-0-6)
Total		15 (15-0-27)
Major: Integrative Business Management		
	Four Major Required Courses (1/6, 2/6, 3/6, 12 4/6)	(12-0-24)
	One Free Elective Course (1/2)	3 (3-0-3)
Total		15 (15-0-27)

**Fourth Year
First Semester**

Course Code	Course Title	Credits
Major: Corporate Sustainability		
BSB 3101	Sustainable Entrepreneurship	3 (3-0-6)
BSB 3304	Strategic Supply Chain Management	3 (3-0-6)
BSB 3305	Integrative Marketing Management	3 (3-0-6)
BSB 3306	Integrative Strategic Management	3 (3-0-6)

	One Business Elective Course (2/6)	3 (3-0-6)
	Total 15 (15-0-30)	
Major: Integrative Business Management		
BSB 3101	Sustainable Entrepreneurship	3 (3-0-6)
	Two Major Required Courses (5/6, 6/6)	6 (6-0-12)
	One Business Elective Course (1/6)	3 (3-0-6)
	One Free Elective Course (2/2)	3 (3-0-3)
	Total 15 (15-0-30)	

Second Semester

Course Code	Course Title	Credits
Major: Corporate Sustainability		
	Four Business Elective Courses (3/6, 4/6, 5/6, 6/6)	12 (12-0-24)
	One Free Elective Course (2/2)	3 (3-0-3)
	Total 15 (15-0-27)	
Major: Integrative Business Management		
	Five Business Elective Courses (2/6, 3/6, 4/6, 5/6, 6/6)	15 (15-0-30)
	Total 15 (15-0-30)	



BACHELOR OF BUSINESS ADMINISTRATION PROGRAM IN GLOBAL HOSPITALITY MANAGEMENT

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Business Administration Program in Global Hospitality Management upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Have to meet the minimum English Proficiency requirement specified in one of the following criteria
- Have obtained a satisfactory pass in MSME assessment tests, eg. basic business knowledge and entrepreneurial skills.

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

- 1) Morally sound, committed to acting justly and open to further growth.
- 2) Have knowledge of accounting principles, possess analytical tools and practical knowledge and skills to make sound accounting decisions.
- 3) Flexible, competent and well-rounded in confronting and solving accounting, financing, and related business problems.
- 4) Able to apply accounting principles in the practice of their profession.
- 5) Able to work as a team and motivate others to work.
- 6) Have positive attitude towards the accounting professions, interpersonal, calculation, analytical, communication and presentation skills, and IT skills.

Bachelor of Business Administration Program in Global Hospitality Management

Curriculum Structure

Total number of credits	125	Credits
A. General Education Courses	24	Credits
Compulsory Courses	21	Credits
Elective Courses	3	Credits
B. Specialized Courses	92	Credits
Core Courses	43	Credits
Major Required Courses	28	Credits
Internship Courses	21	Credits
C. Free Elective Courses	9	Credits

Courses

A. General Education Courses	24	Credits
Compulsory Courses	21	Credits
ELE 1001	Communicative English I	3 (2-3-6)
ELE 1002	Communicative English II	3 (2-3-6)
ELE 2000	Academic English	3 (2-3-6)
ELE 2001	Advanced Academic English	3 (2-3-6)
GE 2202	Ethics	3 (3-0-6)
CN 0400	Chinese for Beginners	3 (3-0-6)
CN 1400	Introduction to Chinese	3 (3-0-6)
Elective Courses	3	Credits
Choose one course from the list:		
AD 3280	Inspiration, Lifestyles and Popular Culture	3 (2-2-5)
ADX 1101	Art and Design Appreciation	3 (3-0-6)
ADX 1102	Design Culture Exposure	2 (0-4-4)
ADX 1140	Journey for Urban Art and Culture Exploration	3 (3-0-6)
ADX 1240	Artist Studio (Painting and Rendering)	3 (2-2-5)
ADX 1303	Design Communication	3 (2-2-5)
ADX 1304	Design Fundamental	3 (2-2-5)
CA 1110	Art and Beauty of Living	3 (2-2-5)
CA 1201	Creative Photography	3 (2-2-5)
CA 1202	Computer Graphic for Presentation Design for Pitching	3 (2-2-5)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
EG 1001	Digital Literacy	3 (3-0-6)
EG 1002	Application Design for Everyone Literacy	3 (3-0-6)
EG 1003	Introduction to Internet of Things (IoT) Literacy	3 (3-0-6)
EG 1004	Artificial Intelligence for beginners	3 (3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3 (3-0-6)
FT 1003	Food Factory Explore Trip (Special course)	3 (3-0-6)
FT 1004A	Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
FT 1005	Sustainability and Circular Living	3 (3-0-6)
FT 2003A	Foods Changing the World (Part A)	2 (2-0-4)
FT 2003B	Foods Changing the World (Part B)	2 (2-0-4)
FT 2004	Drinkology: The Art of drinking	3 (3-0-6)
FT 2005	Food Zodiac	3 (3-0-6)
GE 1104	Thai Historical Perspectives	3 (3-0-6)
GE 1107	Perspectives in Politics and Economy	3 (3-0-6)
GE 1204	Physical Education	1 (0-2-1)
GE 1205	ASEAN Ways	3 (3-0-6)
GE 1209	Psychology Application in Daily Life	3 (3-0-6)
GE 1302	Ecology and Sustainability	3 (3-0-6)
GE 1303	Science for Sustainable Future	2 (2-0-4)

GE 1403	Thai Language for Professional Communication (For Thai students)	3 (3-0-6)
GE 1409	Thai Language for Intercultural Communication (For non-Thai students)	3 (3-0-6)
GE 1410	Thai for Profession Communication (For Thai students)	2 (2-0-4)
GE 1411	Thai Language for Multicultural Communication (For non-Thai students)	2 (2-0-4)
GE 1412	Introductory Thai Usage (For Thai students from International Program)	2 (2-0-4)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
LLB 1501	Business Law (For non-Law students)	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law (For non-Law students)	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business (For non-Law students)	3 (3-0-6)
LLB 4806	Business and Human Rights (For non-Law students)	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 2531	Music Business	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support (For non-Nursing students)	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior (For non-Nursing students)	3 (3-0-6)

B. Specialized Courses 92 Credits

Core Courses		43 Credits
BBA 1111	Business Essential: A Design Thinking Approach	3 (3-0-6)
BGH 1102	Digital Literacy	3 (2-2-5)
BGH 1103	Quantitative Techniques in Business	3 (3-0-6)
BGH 1104	Data Analytics and Visualization	3 (2-2-5)
BGH 1105	Accounting for Professionals	3 (3-0-6)
BBA 1110	Seminar in Business I	1 (1-0-2)
BBA 1120	Seminar in Business II	1 (1-0-2)
BBA 1121	Marketing in Practice	3 (3-0-6)
BBA 1123	Management in Dynamic Contexts	3 (3-0-6)
BGH 2101	Consumer Behaviors and Insights	3 (3-0-6)
BGH 2102	Business Research for Practitioners	3 (3-0-6)
BGH 2103	Developing Leadership and Global Mindsets	3 (3-0-6)
BGH 2104	Finance for Hospitality	3 (3-0-6)

	BBA 2110	Seminar in Business III	1 (1-0-2)
	BBA 2120	Seminar in Business IV	1 (1-0-2)
	BBA 2113	Intercultural Communication and Negotiation	3 (3-0-6)
	BBA 4111	Entrepreneurship	3 (3-0-6)
Major Required Courses			28 Credits
Major: Global Hospitality Management			
	BGH 3201	Introduction to Global Hospitality Management	3 (3-0-6)
	BHT 3212	Food Service Management	3 (3-0-6)
	BHT 3213	Talent Management in Hospitality and Tourism	3 (3-0-6)
	BGH 3202	Professional Personality Development in Hospitality	3 (3-0-6)
	BGH 3203	Rooms Division Management	3 (3-0-6)
	BGH 3204	Service Excellence	3 (3-0-6)
	BGH 4311	Seminar in Global Hospitality Management (Seminar V)	1 (1-0-2)
	BHT 4301	Information Technology in Hospitality and Tourism	3 (3-0-6)
	BHT 4302	Operation and Leadership in Hospitality and Tourism	3 (3-0-6)
	BHT 4303	Strategic Management in Hospitality and Tourism	3 (3-0-6)
Internship Courses			21 Credits
	BHT 4304	Internship in Hospitality	3 (400 hours)
	BGH 4312	Advanced Internship in Global Hospitality I (400 hours)	6 (0-18-0)
	BGH 4313	Advanced Internship in Global Hospitality II (400 hours)	6 (0-18-0)
	BGH 4314	Advanced Internship in Global Hospitality III (400 hours)	6 (0-18-0)

3. Free Elective Courses

9 Credits

Students can take free elective courses of 9 credits from any faculty in Assumption University upon completion of the prerequisites (if any). However, there are certain courses that the Martin de Tours School of Management and Economics does not allow the students to enroll as follows:

Subject Code	Subject Name
ACT 1601	Fundamentals of Financial Accounting
ACT 1602	Fundamentals of Financial Accounting
BAC 1103	Fundamentals of Financial Accounting
BAC 1601	Fundamentals of Financial Accounting
BAC 1602	Fundamentals of Financial Accounting I
BAC 1603	Fundamentals of Financial Accounting II
BAC 1621	Accounting for Economists
BBA 1002	Microeconomics
BBA 1004	Essential Marketing for Entrepreneurs
BBA 1005	Essential Finance for Entrepreneurs
BBA 1006	Essential Economics for Entrepreneurs
BBA 1007	Data Analytics for Entrepreneurs
BBA 1014	The Art of Data for Business
BBA 1020	Design Thinking Essentials
BBA 1021	Design Thinking Workshop
BBA 1022	Building CEO and Leadership Essentials
BBA 1023	Building CEO and Leadership Workshop
BBA 1024	Entrepreneurial Marketing Essentials
BBA 1025	Entrepreneurial Marketing Workshop
BBA 1028	The Art of Data Essentials
BBA 1029	The Art of Data Workshop
BBA 2001	Human Behavior
BEC 2200	Introduction to Economics
BEC 1101	Microeconomics I
BEC 1201	Macroeconomics I

BG 1301	Fundamentals of Statistics
BG 1400	Business Law I
BG 1401	Business Law II
ECO 2202	Macroeconomics
ECO 2531	Principles of Microeconomics
ECO 2541	Principles of Macroeconomics
GE 1101	Thai Civilization
GE 1103	Thai Historical Perspectives
GE 1203	Society, Politics and Economics
GE 1207	Fundamental Psychology
GE 1403	Thai Language for Professional Communication (For Thai students)
GE 1404	Thai Culture and Tradition
GE 1405	Thai Language and Culture (for international students)
GE 1408	Thai usage (for students who graduated from international schools)
GS 1108	Applied Mathematics
MA 1000	Business Mathematics and Statistics
SA 1201	Statistics I
SA 2200	Statistics II

In addition to the above courses, students are not allowed to enroll in courses from the previous curriculum of the Martin de Tours School of Management and Economics unless they have obtained written permission from the School. These courses are designated with the following letter codes: ACT, BIS, ECO, FIN, HTM, IBM, IDM, IML, INS, MGT, MIS, MKT, and REM.

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BBA 1111	Business Essential: A Design Thinking Approach	3 (3-0-6)
BGH 1102	Digital Literacy	3 (2-2-5)
BGH 1103	Quantitative Techniques in Business	3 (3-0-6)
BGH 1104	Data Analytics and Visualization	3 (2-2-5)
BBA 1110	Seminar in Business I	1 (1-0-2)
	One General Elective Course	3 (3-0-6)
	Professional Ethics I and II	Non-credits
Total 19 (17-5-37)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BBA 1121	Marketing in Practice	3 (3-0-6)
BBA 1123	Management in Dynamic Contexts	3 (3-0-6)
BBA 2113	Intercultural Communication and Negotiation	3 (3-0-6)
BGH 1105	Accounting for Professionals	3 (3-0-6)
BBA 1120	Seminar in Business II	1 (1-0-2)
BGH 2101	Consumer Behaviors and Insights	3 (3-0-6)
	Professional Ethics III and IV	Non-credits
Total 19 (17-5-37)		

Second Year

First Semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
BGH 2102	Business Research for Practitioners	3 (3-0-6)
BGH 2103	Developing Leadership and Global Mindsets	3 (3-0-6)
BGH 2104	Finance for Hospitality	3 (3-0-6)

BBA 2110	Seminar in Business III	1 (1-0-2)
BGH 3201	Introduction to Global Hospitality Management	3 (3-0-6)
CN 0400	Chinese for Beginners	3 (3-0-6)
	Professional Ethics V and VI	
Total 19 (18-3-38)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
GE 2202	Ethics	3 (3-0-6)
BBA 2120	Seminar in Business IV	1 (1-0-2)
BHT 3212	Food Service Management	3 (3-0-6)
BHT 3213	Talent Management in Hospitality and Tourism	3 (3-0-6)
BGH 3202	Professional Personality Development in Hospitality	3 (3-0-6)
BGH 3203	Rooms Division Management	3 (3-0-6)
	Professional Ethics VII and VIII	
Total 19 (18-3-38)		

Third Year

First Semester

Course Code	Course Title	Credits
BGH 3204	Service Excellence	3 (3-0-6)
BHT 4301	Information Technology in Hospitality	3 (3-0-6)
BHT 4302	Operations and Leadership in Hospitality	3 (3-0-6)
BHT 4303	Strategic Management in Hospitality	3 (3-0-6)
BBA 4101	Entrepreneurship	3 (3-0-6)
CN 0400	Chinese for Beginners	3 (3-0-6)
BGH 4311	Seminar in Global Hospitality Management	1 (1-0-2)
Total 19 (19-0-38)		

Second Semester

Course Code	Course Title	Credits
xxxx	Free Elective I	3 (3-0-6)
xxxx	Free Elective II	3 (3-0-6)
xxxx	Free Elective III	3 (3-0-6)
Total 9 (9-0-18)		

Fourth Year

First Semester

Course Code	Course Title	Credits
BHT 4304	Internship in Hospitality	3 (400 hours)
Total 3 (400 hours)		

Second Semester

Course	Course Title	Credits
BGH 4312	Advanced Internship I	6 (400 hours)
BGH 4313	Advanced Internship II	6 (400 hours)
BGH 4314	Advanced Internship III	6 (400 hours)
Total 18 (1200 hours)		



BACHELOR OF BUSINESS ADMINISTRATION

PROGRAM IN FAMILY BUSINESS MANAGEMENT AND INNOVATION

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Business Administration Program in Family Business upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Have to meet the minimum English Proficiency requirement specified in one of the following criteria
- Have obtained a satisfactory pass in MSME assessment tests, eg. basic business knowledge and entrepreneurial skills.

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

- 1) Morally sound, committed to acting justly and open to further growth.
- 2) Have knowledge of accounting principles, possess analytical tools and practical knowledge and skills to make sound accounting decisions.
- 3) Flexible, competent and well-rounded in confronting and solving accounting, financing, and related business problems.
- 4) Able to apply accounting principles in the practice of their profession.
- 5) Able to work as a team and motivate others to work.
- 6) Have positive attitude towards the accounting professions, interpersonal, calculation, analytical, communication and presentation skills, and IT skills.

Bachelor of Business Administration Program in Family Business Management and Innovation

Curriculum Structure

Total number of credits	120	Credits
A. General Education Courses	24	Credits
General Education Require Course	24	Credits
B. Specialized Courses	87	Credits
Core Courses	33	Credits
Required Courses	30	Credits
Personalized Courses	24	Credits
C. Free Elective Courses	9	Credits

Courses

A. General Education Courses

General Education Required Courses	24	Credits
SRX 1001 English for Effective Communication	3	(2-3-6)
SRX 1002 English for Academic Purposes	3	(2-3-6)
SRX 1003 Integrated English Skills	3	(2-3-6)
BFB 1001 Information Technology and Digital Literacy	3	(3-0-6)
BFB 1002 Arts and Culture Appreciation	3	(3-0-6)
BFB 1003 Communication and Presentation	3	(3-0-6)
BFB 1004 Business Law	3	(3-0-6)
BFB 1005 Ethics	3	(3-0-6)

B. Specialized Courses

Core Courses	33	Credits
BFB 1101 Design Thinking for Family Business	3	(3-0-6)
BFB 1102 Data Analytics	3	(3-0-6)
BFB 1103 Marketing and Branding for Family Business	3	(3-0-6)
BFB 1104 Accounting for Entrepreneurs	3	(3-0-6)
BFB 1105 Economics for Entrepreneurs	3	(3-0-6)
BFB 2101 Digital Marketing	3	(3-0-6)
BFB 2102 Consumer Insight	3	(3-0-6)
BFB 2103 Family Business Leadership	3	(3-0-6)
BFB 3101 Supply Chain Management	3	(3-0-6)
BFB 3102 Human Resource Management in Family Business	3	(3-0-6)
BFB 3103 Digital Transformation in Family Business	3	(3-0-6)
Required Courses	30	Credits
BFB 2201 Financial Management for Family Business	3	(3-0-6)
BFB 2202 Strategic Management and Commercialization	3	(3-0-6)
BFB 2203 Internationalization and Growth Strategy	3	(3-0-6)
BFB 2204 Succession Planning in Family Business	3	(3-0-6)
BFB 2205 Governance and Conflict Management in Family Enterprises	3	(3-0-6)
BFB 3201 Family Business Consulting Project	3	(3-0-6)
BFB 3202 Business Plan Development for Family Enterprises	3	(3-0-6)
BFB 3203 Seminar in Family Business Project	3	(3-0-6)
BFB 3204 Family Business Venture I	3	(3-0-6)
BFB 3205 Family Business Venture II	3	(3-0-6)
Personalized Courses	24	Credits
Students can take 24 credits from any courses listed below upon completion of the prerequisites (if any).		
BFB 4300 Selected Topic in Business Exposure	3	(3-0-6)
- 4309		
BFB 4310 Selected Topic in Multidisciplinary skills	3	(3-0-6)
- 4319		
BFB 4320 Selected Topic in Research for Business	3	(3-0-6)
- 4329		

BFB 4330 - 4339	Selected Topic in Digital Business Management	3 (3-0-6)
BFB 4340 - 43409	Selected Topic in Real Estate Business	3 (3-0-6)
BFB 4350 - 4359	Selected Topic in Entrepreneurship and Innovation	3 (3-0-6)
BFB 4360 - 4369	Selected Topic in Finance	3 (3-0-6)
BFB 4370 - 4379	Selected Topic in Global Business Management	3 (3-0-6)
BFB 4380 - 4389	Selected Topic in Risk Management	3 (3-0-6)
BFB 4390 - 4399	Selected Topic in Marketing	3 (3-0-6)
BFB 4400 - 4409	Selected Topic in Hospitality and Tourism Management	3 (3-0-6)
BFB 4410 - 4419	Selected Topic in Economics	3 (3-0-6)
BFB 4420 - 4429	Selected Topic in Advanced Data Analytics	3 (3-0-6)
BFB 4430 - 4439	Selected Topic in Law, Legal and Tax Planning	3 (3-0-6)
BFB 4440 - 4449	Selected Topic in Health and Wellness for Business	3 (3-0-6)
BFB 4450 - 4459	Selected Topic in Biotechnology for Business	3 (3-0-6)
BFB 4460 - 4469	Selected Topic in Digital Technology for Business	3 (3-0-6)
BFB 4470 - 4479	Selected Topic in Engineering Technology for Business	3 (3-0-6)
BFB 4480 - 4489	Selected Topic in Design for Business	3 (3-0-6)
BFB 4490 - 4499	Selected Topic in Creative Arts for Business	3 (3-0-6)
BFB 4500 - 4509	Selected Topic in Language and Culture for Business	3 (3-0-6)
BFB 4510 - 4519	Selected Topic in Growth Mindset and Self Development	3 (3-0-6)

C. Free Elective Courses

9 Credits

Students can take free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any).

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
SRX 1001	English for Effective Communication	3 (2-3-6)
BFB 1001	Information Technology and Digital Literacy	3 (3-0-6)
BFB 1002	Arts and Culture Appreciation	3 (3-0-6)
BFB 1101	Design Thinking for Family Business	3 (3-0-6)
BFB 1102	Data Analytics	3 (3-0-6)
BFB 1103	Marketing and Branding for Family Business	3 (3-0-6)
SRX 14031	Business Ethics Seminar I	Non-Credit
Total 18 (17-3-36)		

Second Semester

Course Code	Course Title	Credits
SRX 1002	English for Academic Purposes	3 (2-3-6)
BFB 1003	Communication and Presentation	3 (3-0-6)

BFB 1004	Business Law	3 (3-0-6)
BFB 1005	Ethics	3 (3-0-6)
BFB 1104	Accounting for Entrepreneurs	3 (3-0-6)
BFB 1105	Economics for Entrepreneurs	3 (3-0-6)
SRX 14032	Business Ethics Seminar II	Non-Credit
Total 18 (17-3-36)		

**Second Year
First Semester**

Course Code	Course Title	Credits
SRX 1003	Integrated English Skills	3 (2-3-6)
BFB 2101	Digital Marketing	3 (3-0-6)
BFB 2102	Consumer Insight	3 (3-0-6)
BFB 2201	Financial Management for Family Business	3 (3-0-6)
BFB 2202	Strategic Management and Commercialization	3 (3-0-6)
SRX 14033	Business Ethics Seminar III	Non-Credit
Total 15 (14-3-30)		

Second Semester

Course Code	Course Title	Credits
BFB 2103	Family Business Leadership	3 (3-0-6)
BFB 2203	Internationalization and Growth Strategy	3 (3-0-6)
BFB 2204	Succession Planning in Family Business	3 (3-0-6)
BFB 2205	Governance and Conflict Management in Family Enterprises	3 (3-0-6)
	Free Electives (1)	3 (3-0-6)
	Free Electives (2)	3 (3-0-6)
SRX 14034	Business Ethics Seminar IV	Non-Credit
Total 18 (18-0-36)		

**Third Year
First Semester**

Course Code	Course Title	Credits
BFB 3101	Supply Chain Management	3 (3-0-6)
BFB 3102	Human Resource Management in Family Business	3 (3-0-6)
	Personalized Course (1)	3 (3-0-6)
	Personalized Course (2)	3 (3-0-6)
	Free Electives (3)	3 (3-0-6)
SRX 14035	Business Ethics Seminar V	Non-Credit
Total 15 (15-0-30)		

Second Semester

Course Code	Course Title	Credits
BFB 3103	Digital Transformation in Family Business	3 (3-0-6)
BFB 3201	Family Business Consulting Project	3 (3-0-6)
BFB 3202	Business Plan Development for Family Enterprises	3 (3-0-6)
BFB 3203	Seminar in Family Business Project	3 (3-0-6)
BFB 3204	Family Business Venture I	3 (3-0-6)
BFB 3205	Family Business Venture II	3 (3-0-6)
SRX 14036	Business Ethics Seminar VI	Non-Credit
Total 18 (18-0-36)		

**Fourth Year
First Semester**

Course Code	Course Title	Credits
	Personalized Course (3)	3 (3-0-6)
	Personalized Course (4)	3 (3-0-6)
	Personalized Course (5)	3 (3-0-6)

SRX 14037	Business Ethics Seminar VII	Non-Credit
Total 9 (9-0-18)		
Second Semester		
Course Code	Course Title	Credits
	Personalized Course (6)	3 (3-0-6)
	Personalized Course (7)	3 (3-0-6)
	Personalized Course (8)	3 (3-0-6)
SRX 14038	Business Ethics Seminar VIII	Non-Credit
Total 9 (9-0-18)		





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THEODORE MARIA SCHOOL OF **ARTS**





BACHELOR OF ARTS PROGRAM IN INTERNATIONAL BUSINESS LANGUAGES (ENGLISH / FRENCH / CHINESE / JAPANESE)

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Arts Program in International Business Languages (English / French / Chinese / Japanese) upon students who meet all of the following requirements:

1. Have completed the total number of credits of the curriculum
2. Have obtained a cumulative grade point average of at least 2.00
3. Have participated in 16 sessions of the Professional Ethics Seminar
4. Have obtained library and financial clearance from the University
5. Have demonstrated good behavior and discipline
6. English proficiency standard for undergraduate level
Prior to graduation, undergraduate students are obligated to meet the minimum English proficiency requirement specified in one of the following criteria:

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Have a sense of social and self-responsibility and become an ethical citizen of the society.
2. Have English proficiency necessary for business executions and be well-rounded in terms of intercultural communication.
3. Demonstrate skills and expertise in applying knowledge to real life context and solving problems creatively and efficiently
4. Be able to work and communicate effectively with both Thai and international people with respect and courtesy.

Bachelor of Arts Program in International Business Languages (English/ French/ Chinese/ Japanese)

Curriculum Structure

Total Number of credits	126	Credits
A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
- Language Courses	12	Credits
- Social Science Required Courses	3	Credits
General Education Elective Courses	9	Credits
B. Specialize Courses	96	Credits
Core Courses	30	Credits
Major Required Courses	51	Credits
- English for International Business		
- French for International Business		
- Chinese for International Business		
- Japanese for International Business		
Business Language Elective Tracks	15	Credits
- Airlines and Hospitality Track		
- Self-Entrepreneurship Track		
- Media and Entertainment Track		
- Languages of Interest Track		
- Design Your Own Experience Track *		
C. Free Elective Courses	6	Credits

For Business Language Elective courses, students from the International Business Languages program are to choose five (5) subjects from the five tracks proposed after fulfilling any prerequisites:

1. Airlines and Hospitality Track
2. Self-Entrepreneurship Track
3. Media and Entertainment Track
4. Languages of Interest Track
5. *Design Your Own Experience Track, offered jointly by the School

of Management and the School of Architecture and Design.

Students choosing three (3) subjects (excluding EIB, FIB, CIB, JIB Internship courses) from the same track (Design your own experience track is not included) and passing all the courses will be awarded a certificate issued by the School of Arts. The courses are also offered as free electives and/or selected topics to students from other Schools/other majors upon completion of prerequisite (if any). This is to provide opportunities for the students to be exposed to a diverse range of courses.

Courses

A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
- Language Courses	12	Credits
ELE 1001 Communication English I	3	(2-3-6)
ELE 1002 Communication English II	3	(2-3-6)
ELE 2000 Academic English	3	(2-3-6)
ELE 2001 Advanced Academic English	3	(2-3-6)
Social Science Required Courses	3	Credits
GE 2202 Ethics	3	(3-0-6)
General Education Elective Courses (to be chosen from the list below)	9	Credits
GE Courses offered by School of Arts		Credits
CN 0400 Chinese for Beginners I	3	(3-0-6)
ELE 1001 Communicative English I	3	(2-3-6)
ELE 1002 Communicative English II	3	(2-3-6)
ELE 2000 Academic English	3	(2-3-6)
ELE 2001 Advanced Academic English	3	(2-3-6)
FIB 1515 Fundamental French	3	(3-0-6)

FIB 1516	Communicative French	3 (3-0-6)
FIB 1517	French Culture and Society	3 (3-0-6)
GE 0400	Thai Language for Professional Communication (For Thai students)	3 (3-0-6)
GE 1104	Thai Historical Perspectives	3 (3-0-6)
GE 1107	Perspectives in Politics and Economy	3 (3-0-6)
GE 1204	Physical Education	3 (3-0-6)
GE 1205	ASEAN Ways	3 (3-0-6)
GE 1209	Psychology Application in Daily Life	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 1302	Ecology and Sustainability	3 (3-0-6)
GE 1303	Science for Sustainable Future	3 (3-0-6)
GE Courses offered by School of Arts		
GE 1409	Thai Language for Intercultural Communication (For Non-Thai students)	3 (3-0-6)
GE 1410	Thai for Profession Communication (For Thai students)	3 (3-0-6)
GE 1411	Thai Language for Multicultural Communication (For non-Thai students)	3 (3-0-6)
GE 1412	Introductory Thai Usage (For Thai students from International Program)	3 (3-0-6)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2110	Human Civilizations and Global Citizens	3 (3-0-6)
GE 2202	Ethics	3 (3-0-6)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)
JA 0721	Japanese for Beginners I	3 (3-0-6)
GE Courses offered by School of Architecture and Design		
ADX 1101	Art and Design Appreciation	3 (3-0-6)
ADX 1102	Design Culture Exposure	3 (3-0-6)
ADX 1140	Journey for Urban Art and Culture Exploration	3 (3-0-6)
ADX 1240	Artist Studio (Painting and Rendering)	3 (2-2-5)
ADX 1303	Design Communication	3 (2-2-5)
ADX 1304	Design Fundamental	3 (2-2-5)
GE Courses offered by School of Biotechnology		
FT 1003	Food Factory Explore Trip (Special course)	3 (3-0-6)
FT 1004A	Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
FT 1005	Sustainability and Circular Living	3 (3-0-6)
FT 2003A	Foods Changing the World (Part A)	2 (2-0-4)
GE Courses offered by School of Biotechnology		
FT 2003B	Foods Changing the World (Part B)	1 (1-0-2)
FT 2004	Drinkology: The Art of drinking	3 (3-0-6)
FT 2005	Food Zodiac	3 (3-0-6)
GE Courses offered by School of Music		
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MB 2531	Music Business	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
GE Courses offered by School of Management and Economics		
BBA 1004	Essential Marketing for Entrepreneurs	3 (3-0-6)

BBA 1005	Essential Finance for Entrepreneurs	3 (3-0-6)
BBA 1006	Essential Economics for Entrepreneurs	3 (3-0-6)
BBA 1007	Data Analytics for Entrepreneurs	3 (3-0-6)
BBA 1010	Design Thinking in Business	3 (3-0-6)
BBA 1012	Entrepreneurial Marketing	3 (3-0-6)
BBA 1013	Entrepreneurial Finance	3 (3-0-6)
BBA 1014	The Art of Data for Business	3 (3-0-6)
BBA 1020	Design Thinking Essentials	2 (2-0-4)
BBA 1021	Design Thinking Workshop	1 (1-0-2)
BBA 1022	Building CEO and Leadership Essentials	2 (2-0-4)
BBA 1023	Building CEO and Leadership Workshop	1 (1-0-2)
BBA 1024	Entrepreneurial Marketing Essentials	2 (2-0-4)
BBA 1025	Entrepreneurial Marketing Workshop	1 (1-0-2)
BBA 1026	Entrepreneurial Finance Essentials	2 (2-0-4)
BBA 1027	Entrepreneurial Finance Workshop	1 (1-0-2)
BBA 1028	The Art of Data Essentials	2 (2-1-4)
BBA 1029	The Art of Data Workshop	2 (2-1-4)
GE Courses offered by School of Communication Arts		
CA 1110	Art and Beauty of Living	3 (2-2-5)
CA 1201	Creative Photography	3 (2-2-5)
CA 1202	Computer Graphics for Presentation Design for Pitching	3 (2-2-5)
AD 3280	Inspiration, Lifestyles and Popular Culture	3 (2-2-5)
GE Courses offered by School of Engineering		
EG 1001	Digital Literacy	3 (3-0-6)
EG 1002	Application Design for Everyone Literacy	3 (3-0-6)
EG 1003	Introduction to Internet of Things (IoTs) Literacy	3 (3-0-6)
EG 1004	Artificial Intelligence for beginners	3 (3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3 (3-0-6)
GE Courses offered by School of Science and Technology		
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
ITX 2004	Design and Prototyping UI/UX	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
GE Courses offered by School of Law		
LLB 1501	Business Law	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business	3 (3-0-6)
LLB 4806	Business and Human Rights	3 (3-0-6)
GE Courses offered by School of Nursing		
NGE 0110	First Aid and Basic Life Support	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior	3 (3-0-6)

B. Specialized Courses

Required Core Courses

81 Credits

30 Credits

Code	Course Name	Credits
BBA 1001	Business Exploration	3 (3-0-6)
BBA 1012	Entrepreneurial Marketing	3 (3-0-6)
BBA 1102	Data and Information Literacy	3 (2-2-5)
CA 1202	Computer Graphics for Presentation Design for Pitching	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GL 1101	Elements of Spoken Language	3 (3-0-6)
GL 2101	Introduction to Language	3 (3-0-6)
GL 2102	Communication in International Business (**Certiport)	3 (3-0-6)
GL 3104	Language, Culture and Society	3 (3-0-6)

** Certification provided/issued by Certiport Pearson Vue

Certification for Communication Skills for Business (CSB) is offered to students who enroll in the core course: International Business Communication. CSB content that will be integrated in the course and a quiz/test will help validate students entering the workforce to understand key communication principles and skills that are necessary to be effective in a work environment. It helps foster understanding of key communication principles and skills that are necessary to be effective in the work environment.

The CSB Professional Communication exam is a box exam with innovative selected response options. The core concepts include professional communication skills; effective verbal, nonverbal and listening skills; creating business deliverables; effectively delivering a message; receiving communications; and analyzing communication scenarios.

English for International Business

Major Required Courses			51	Credits
Code	Course	Name		Credits
EIB 2101		Fundamentals of Speech Communication	3	(3-0-6)
EIB 2102		Grammar Fundamentals for Business	3	(3-0-6)
EIB 2103		Writing Skills Development	3	(3-0-6)
EIB 2104		Entrepreneurial English	3	(3-0-6)
EIB 2105		Trends in International Business English	3	(3-0-6)
EIB 2106		English for International Travel Industry	3	(3-0-6)
EIB 3101		English Communication for People Operations	3	(3-0-6)
EIB 3102		Public Speaking and Emceeing	3	(3-0-6)
EIB 3103		International Trade and E-commerce in English	3	(3-0-6)
EIB 4101		News Literacy	3	(3-0-6)
EIB 4102		Critical Thinking and Reading in Business English	3	(3-0-6)
EIB 4103		Art of Business English Translation	3	(3-0-6)
		(Thai students only) OR		
ECD 3932		Media Content Writing (For International Students)		
EN 3291		Intercultural Business Communication	3	(3-0-6)
EN 4232		Business Conversation	3	(3-0-6)
EN 4256		Introduction to Business Research Writing	3	(3-0-6)
EN 4292		Business Article Writing	3	(3-0-6)
EN 4296		Advanced Listening and Note-taking in Business	3	(3-0-6)

French for International Business

Major Required Courses			51	Credits
Code	Course	Name		Credits
FIB 1515		Fundamental French	3	(3-0-6)
FIB 1516		Communicative French I	3	(3-0-6)
FIB 1517		French Culture and Society	3	(3-0-6)
FIB 2518		Communicative French II	3	(3-0-6)
FIB 2519		French Pronunciation	3	(3-0-6)
FIB 2520		Advanced French	3	(3-0-6)
FIB 2521		Listening and Speaking Skills in French	3	(3-0-6)
FIB 2522		Reading and Writing Skills in French	3	(3-0-6)
FIB 3523		Business French I	3	(3-0-6)
FIB 3524		French Media Literacy	3	(3-0-6)
FIB 3525		Translation Studies (Thai Students ONLY) OR	3	(3-0-6)
FIB 3526		Intercultural Communication Strategies for French-Speaking Contexts. (Major Required for Non-Thai)		
FIB 3527		Advanced Listening and Speaking Skills in French	3	(3-0-6)
FIB 3528		Advanced Reading and Writing Skills in French	3	(3-0-6)
FIB 3529		Advanced French Grammar	3	(3-0-6)
FIB 4530		Business French II	3	(3-0-6)
FIB 4531		Aspects of French-Speaking Countries	3	(3-0-6)
FIB 4532		French for Academic Purposes	3	(3-0-6)

Chinese for International Business

Major Required Courses			51 Credits
Code	Course Name		Credits
CN 1400	Introduction to Chinese		3 (3-0-6)
CN 1401	Chinese I		3 (3-0-6)
CN 2401	Chinese II		3 (3-0-6)
CN 2402	Chinese III		3 (3-0-6)
CIB 2433	Oral Comprehension and Expression in Chinese I		3 (3-0-6)
CIB 2434	Oral Comprehension and Expression in Chinese II		3 (3-0-6)
CN 3403	Chinese IV		3 (3-0-6)
CN 3420	Integrated Chinese Skills		3 (3-0-6)
CN 3436	Chinese Business Conversation I		3 (3-0-6)
CN 3437	Chinese Business Conversation II		3 (3-0-6)
CN 3450	Introduction to Chinese Writing		3 (3-0-6)
CN 3451	Communicative Writing in Chinese		3 (3-0-6)
CN 3463	Introduction to Chinese Culture		3 (3-0-6)
CN 3470	Translation I: Chinese-Thai OR		3 (3-0-6)
CIB 3487	Chinese for Business in Digital Age I (for International Students ONLY)		
CIB 4445	Reading Chinese Media		3 (3-0-6)
CN 4453	Business Writing in Chinese		3 (3-0-6)
CN 4471	Translation II: Chinese-Thai OR		3 (3-0-6)
CIB 4446	Chinese for Digital Media (for International Students ONLY)		

Japanese for International Business

Major Required Courses			51 Credits
Code	Course Name		Credits
JA 1700	Introduction to Japanese		3 (3-0-6)
JA 1701	Japanese I		3 (3-0-6)
JA 2701	Japanese II		3 (3-0-6)
JA 2702	Japanese III		3 (3-0-6)
JA 2703	Basic Reading and Writing I		3 (3-0-6)
JA 2704	Basic Reading and Writing II		3 (3-0-6)
JIB 2705	Kanji Studies		3 (3-0-6)
JA 3722	Japanese Reading and Oral Report		3 (3-0-6)
JIB 3747	Oral Comprehension and Expression in Japanese		3 (3-0-6)
JIB 3748	Intermediate Japanese Grammar I		3 (3-0-6)
JIB 3749	Intermediate Japanese Grammar II		3 (3-0-6)
JIB 3750	Japanese in Business Communication		3 (3-0-6)
JIB 3751	Effective Japanese Listening and Speaking		3 (3-0-6)
JA 4701	Reading in Business Japanese I		3 (3-0-6)
JA 4702	Business Writing in Japanese I		3 (3-0-6)
JA 4725	Translation in Business Japanese		3 (3-0-6)
JA 4726	Public Speaking in Japanese		3 (3-0-6)

Business Language Elective Tracks Offered to Other Schools/ Programs 15 Credits

For Business Language Elective courses, students enrolled in the four language major fields are to choose 5 subjects from the following five tracks after fulfilling any prerequisites:

1. Airlines and Hospitality Track
2. Self-Entrepreneurship Track
3. Media and Entertainment Track
4. Languages of Interest Track
5. Design Your Own Experience Track, offered jointly by the School of Management and the School of Architecture and Design.

Students choosing three (3) subjects (excluding EIB, FIB, CIB, JIB Internship courses) from the same track (Design Your Own Experience Track is not included) and passing all

the courses will be awarded a certificate issued by the School of Arts. The courses are also offered to students from other Schools/of other programs as free electives and/or Business Language Elective courses upon completion of prerequisite (if any).

Airlines and Hospitality Track

Code	Course Name	Credits
CN 3481	Chinese for Tourism	3 (3-0-6)
CN 3483	Chinese for Service Industries	3 (3-0-6)
CN 3485	Chinese for Hotel Services	3 (3-0-6)
CIB 3486	Chinese for Airline Services	3 (3-0-6)
CN 4493	Business Chinese Internship	3 (0-9-3)
EN 3288	English for Airlines Business	3 (3-0-6)
EN 3294	English for Hotel Services	3 (3-0-6)
EIB 2201	English Skills for ATC (Air Traffic Controllers)	3 (3-0-6)
EIB 2202	English for Healthcare and Nutrition	3 (3-0-6)
EIB 2207	Business English Internship	3 (0-9-3)
FIB 3634	French for Hotel Services	3 (3-0-6)
FIB 3635	French for Airline Services	3 (3-0-6)
FIB 3636	French for Workplace Communication	3 (3-0-6)
FIB 3637	DELFL Exam A1/A2 Preparation	3 (3-0-6)
FIB 3638	Business French Internship	3 (0-9-3)
FIB 3646	DELFL Exam B1 Preparation	3 (3-0-6)
JA 3724	Aspects of Japan	3 (3-0-6)
JA 3726	Japanese for Tourism	3 (3-0-6)
JA 3727	Japanese for Hotel Services	3 (3-0-6)
JA 3728	Japanese for Airline Services	3 (3-0-6)
JIB 3760	Business Japanese Internship	3 (0-9-3)

Self-Entrepreneurship Track

CN 3484	Chinese for Office Management	3 (3-0-6)
CIB 3487	Chinese for Business in Digital Age I	3 (3-0-6)
CIB 4437	Chinese Negotiation for Entrepreneurs	3 (3-0-6)
CIB 4488	Chinese for Business in Digital Age II	3 (3-0-6)
CN 4493	Business Chinese Internship	3 (0-9-3)
EN 3295	English for Online Business	3 (3-0-6)
ECD 4933	Art of Persuasion	3 (3-0-6)
EIB 2203	English for Startups	3 (3-0-6)
EIB 2204	Language for Financial Literacy	3 (3-0-6)
EIB 2207	Business English Internship	3 (0-9-3)
FIB 3636	French for Workplace Communication	3 (3-0-6)
FIB 3637	DELFL Exam A1/A2 Preparation	3 (3-0-6)
FIB 3638	Business French Internship	3 (0-9-3)
FIB 3639	French for Luxury Fashion Industry	3 (3-0-6)
FIB 3640	French for Digital Communication	3 (3-0-6)
FIB 3646	DELFL Exam B1 Preparation	3 (3-0-6)
JIB 3752	Japanese for Workplace Communication	3 (3-0-6)
JIB 3753	Translation in Japanese-Thai/ Thai-Japanese	3 (3-0-6)
JIB 3754	JLPT N2 Exam Preparation	3 (3-0-6)
JIB 3755	Japanese for Industrial Technology	3 (3-0-6)
JIB 3760	Business Japanese Internship	3 (0-9-3)

Media and Entertainment Track

CIB 3438	Chinese from Social and Entertainment Media	3 (3-0-6)
CIB 3439	Chinese from Digital Media	3 (3-0-6)
CN 4433	Public Speaking in Chinese	3 (3-0-6)
CIB 4446	Chinese for Digital Media	3 (3-0-6)
CN 4493	Business Chinese Internship	3 (0-9-3)
ECD 3931	Media Story Telling	3 (3-0-6)
ECD 3932	Media Content Writing	3 (3-0-6)
EIB 2205	Language for Entertainment Industry	3 (3-0-6)
EIB 2206	Language for Music Lovers	3 (3-0-6)
EIB 2207	Business English Internship	3 (0-9-3)
FIB 3637	DELFL Exam A1/A2 Preparation	3 (3-0-6)

FIB 3638	Business French Internship	3 (0-9-3)
FIB 3640	French for digital communication	3 (3-0-6)
FIB 3641	French for Social Media Marketing	3 (3-0-6)
FIB 3642	Survey of French Entertainment Industry	3 (3-0-6)
FIB 3646	DELFL Exam B1 Preparation	3 (3-0-6)
JIB 3756	Japanese from Audio Visual Media	3 (3-0-6)
JIB 3757	Japanese from Digital Media	3 (3-0-6)
JIB 3758	Japanese Short Stories	3 (3-0-6)
JIB 3759	Japanese in Digital Literacy	3 (3-0-6)
JIB 3760	Business Japanese Internship	3 (0-9-3)
Languages of Interest Track		
CN 0400	Chinese for Beginners I (for non-major students)	3 (3-0-6)
CN 1400	Introduction to Chinese	3 (3-0-6)
CN 1401	Chinese I	3 (3-0-6)
CN 2401	Chinese II	3 (3-0-6)
CN 4491	Seminar on Selected Topics	3 (3-0-6)
CN 4493	Business Chinese Internship	3 (0-9-3)
FIB 3637	DELFL Exam A1/A2 Preparation	3 (3-0-6)
FIB 3638	Business French Internship	3 (0-9-3)
FIB 3643	Survey of French Literature	3 (3-0-6)
FIB 3644	French for Media and Journalism	3 (3-0-6)
FIB 3645	Romance French Language	3 (3-0-6)
FIB 3646	DELFL Exam B1 Preparation	3 (3-0-6)
JA 0723	Reading and Writing Japanese Scripts	3 (3-0-6)
JA 1700	Introduction to Japanese	3 (3-0-6)
JA 1701	Japanese I	3 (3-0-6)
JA 2701	Japanese II	3 (3-0-6)
JA 2702	Japanese III	3 (3-0-6)
JIB 3760	Business Japanese Internship	3 (0-9-3)
TH 1500	Introduction to Thai (Non-Thai students ONLY)	3 (3-0-6)
TH 1501	Thai Language I (Non-Thai students ONLY)	3 (3-0-6)
TH 2501	Thai Language II (Non-Thai students ONLY)	3 (3-0-6)
TH 2502	Thai Language III (Non-Thai students ONLY)	3 (3-0-6)
TH 3501	Advanced Reading (Non-Thai students ONLY)	3 (3-0-6)
Design Your Own Experience Track		
Students are obliged to choose any five (5) subjects from the Integrative Business courses offered by the School of Management and The School of Architecture and Design		
Business Analytics Concentration for Non-Digital Business Management Major Students		
Choose between BDM 3305 or BDM 3424		
BDM 3302	Data Management	3 (2-2-5)
BDM 3303	Data Mining	3 (2-2-5)
BDM 3305	Big Data Analytics	3 (2-2-5)
BDM 3405	Database Systems	3 (2-2-5)
BDM 3415	Business Intelligence	3 (2-2-5)
BDM 3424	Innovative Technology Applications	3 (2-2-5)
BDM 3202	Digital Commerce	3 (2-2-5)
BDM 3206	Digital Business Process	3 (2-2-5)
BDM 3207	Systems Analysis and Design	3 (2-2-5)
BDM 3208	Enterprise Resource Planning	3 (2-2-5)
BDM 3424	Innovative Technology Applications	3 (2-2-5)
Digital Business Transformation Concentration for Non-Digital Business Management Major Students		
BDM 3202	Digital Commerce	3 (2-2-5)
BDM 3206	Digital Business Process	3 (2-2-5)
BDM 3207	Systems Analysis and Design	3 (2-2-5)
BDM 3208	Enterprise Resource Planning	3 (2-2-5)
BDM 3424	Innovative Technology Applications	3 (2-2-5)
Business Economics		
BEC 2310	Calculus	3 (3-0-6)
BEC 2311	Applied Econometrics	3 (3-0-6)

	BEC 2410	Economic Reasoning	3 (3-0-6)
	BEC 3110	Microeconomics II	3 (3-0-6)
	BEC 3111	Game Theory	3 (3-0-6)
	BEC 3112	Managerial Economics	3 (3-0-6)
	BEC 3113	Industrial Organization	3 (3-0-6)
	BEC 3210	Macroeconomics II	3 (3-0-6)
	BEC 3311	Time series Analysis and Forecasting	3 (3-0-6)
	BEC 3312	Business Intelligence	3 (3-0-6)
	BEC 3314	Cost and Benefit Analysis	3 (3-0-6)
	BEC 3410	International Economics	3 (3-0-6)
Finance Concentration for Non-Finance and Risk Management Major Students			
	BFR 2231	Business Strategic Analysis and Sustainable Finance	3 (3-0-6)
	BFR 3131	Investment Management and Analysis	3 (3-0-6)
	BFR 3242	Portfolio Management and Analysis	3 (3-0-6)
	BFR 4141	Business and Financial Data Analytics	3 (3-0-6)
	BFR 4143	Personal Wealth Management and Financial Planning	3 (3-0-6)
Risk Management Concentration for Non-Finance and Risk Management Major Students			
	BFR 3132	Risk Management and Insurance	3 (3-0-6)
	BFR 3243	Property and Casualty Insurance	3 (3-0-6)
	BFR 3244	Life and Health Insurance	3 (3-0-6)
	BFR 4144	Operations in Non-Life Insurance	3 (3-0-6)
	BFR 4145	Operations in Life Insurance	3 (3-0-6)
Global Business Management Concentration for Non- Global Business Management Major Students			
	BGB 3211	Diversity and Culture in Global Environment	3 (3-0-6)
	BGB 3212	Marketing Strategies for Global Ventures	3 (3-0-6)
	BGB 3221	Global Business Strategies	3 (3-0-6)
	BGB 4211	Global Supply Chain Management	3 (3-0-6)
	BGB 4221	Strategic Decision Making	3 (3-0-6)
Global Human Resource Strategy Concentration for Global Business Management Major Students and Non- Global Business Management Students			
	BGB 3311	Innovative Strategies for Talent Acquisition and Retention	3 (3-0-6)
	BGB 3312	Strategies for Effective Human Relationship Management	3 (3-0-6)
	BGB 3321	Human Resource Leadership for Sustainable Change	3 (3-0-6)
	BGB 3322	Human Resource Analytics and Decision-Making	3 (3-0-6)
	BGB 4311	Global Human Resource Capstone Practicum	3 (300 hours)
Global Supply Chain Management Concentration for Global Business Management Major Students and Non- Global Business Management Students			
	BGB 3313	Lean Manufacturing and Agile Supply Chain	3 (3-0-6)
	BGB 3314	International Transportation and Distribution Management	3 (3-0-6)
	BGB 3323	Warehousing and Material Handling	3 (3-0-6)
	BGB 3324	Procurement and Supply Management	3 (3-0-6)
	BGB 4312	Supply Chain Risk Management	3 (3-0-6)
Hospitality and Tourism Management Concentration for Hospitality and Tourism Management Major, Non-Hospitality and Tourism Management Major, Other School Students			
	BHT 3405	Kitchen Operation	3 (3-0-6)
	BHT 3421	Front Office and Rooms Management	3 (3-0-6)
	BHT 3422	Service Excellence	3 (3-0-6)
	BHT 3423	Professional Personality Development in Hospitality and Tourism	3 (3-0-6)
	BHT 3424	Restaurant Service	3 (3-0-6)
Digital Marketing Essential Concentration for both Marketing Major and Non-Marketing Major Students			

BMK 3310	Digital Consumer Insights	3 (3-0-6)
BMK 3311	Content Marketing	3 (3-0-6)
BMK 3321	Essential MarTech	3 (3-0-6)
BMK 4311	Digital Media Strategies	3 (3-0-6)
BMK 4321	Digital Marketing in Practice	3 (3-0-6)
New Business Ventures Concentration for both Marketing Major and Non-Marketing Major Students		
BFR 4146	Enterprise Risk Management	3 (3-0-6)
BGB 3310	Business Model Development	3 (3-0-6)
BMK 3312	Retail Marketing and Merchandising	3 (3-0-6)
BMK 3322	Innovations in Customer Experiences and Sales	3 (3-0-6)
BMK 4322	Commercialization	3 (3-0-6)
Marketing Concentration for Non-Marketing Major Students		
BMK 3211	Brand Driven Innovation	3 (3-0-6)
BMK 3212	Digital Marketing and Communications	3 (3-0-6)
BMK 3213	Marketing Analysis and Strategy	3 (3-0-6)
BMK 3322	Innovations in Customer Experience and Sales	3 (3-0-6)
BMK 3412	Experiential and Lifestyle Marketing	3 (3-0-6)
Real Estate Concentration for Non- Real Estate Major Students		
BRE 3201	Real Estate Business	3 (3-0-6)
BRE 3204	Building Design and Construction Techniques	3 (3-0-6)
BRE 3303	Commercial Property Management	3 (3-0-6)
BRE 3304	Real Estate Finance and Investment Analysis	3 (3-0-6)
BRE 4303	Real Estate Development and Project Management	3 (3-0-6)
Professional Track: Design Dialogue offered by The School of Architecture and Design		
PD 1102	Introduction to Design Culture and Trend	3 (3-0-6)
PD 1103	Visual Design	3 (2-2-5)
PD 1306	Design Principles	3 (2-2-5)
PD 2304	Art and Design Appreciation	3 (3-0-6)
ADS 1303	Digital Design and Presentation	3 (2-2-5)

C. Free Elective Courses

6 Credits

Students can take free elective courses of 6 credits from any Faculty in Assumption University upon completion of the prerequisites (if any). CN 0400 Chinese for Beginners I and CN 0401 Chinese for Beginners II are for non-CIB major students.

Study Plan

English for International Business

First Year

First semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BBA 1001	Business Exploration	3 (3-0-6)
BBA 1102	Data and Information Literacy	3 (2-2-5)
GE 2103	Art of Reasoning	3 (3-0-6)
CA 1202	Computer Graphics for Presentation Design for Pitching	3 (3-0-6)
	One General Education Elective Course	3 (3-0-6)
Total		18 (16-5-35)

Second semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BBA 1012	Entrepreneurial Marketing	3 (3-0-6)
GL 1101	Elements of Spoken Language	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
EIB 2101	Fundamentals of Speech Communication	3 (3-0-6)
	One General Education Elective Course	3 (3-0-6)
Total		18 (17-3-36)

Second Year

First semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
GE 2202	Ethics	3 (3-0-6)
GL 2102	Communication in International Business (**certiport)	3 (3-0-6)
GL 2101	Introduction to Language	3 (3-0-6)
EIB 2102	Grammar Fundamentals for Business	3 (3-0-6)
Total	15 (14-3-30)	

Second semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
EIB 2104	Entrepreneurial English	3 (3-0-6)
EIB 2105	Trends in International Business	3 (3-0-6)
GL 3104	Language Culture and Society	3 (3-0-6)
	One General Education Elective Course	3 (3-0-6)
Total	15 (14-3-36)	

Third Year

First semester

English for International Business program students choose any five (5) subjects from the Business Language Elective Tracks from any tracks proposed upon completion of pre-requisite (if any) OR choose courses /selected topics that are offered by other Schools/other programs upon completion of prerequisite (if any)

15 (18-0-36)	One Free Elective Course	3 (3-0-6)
Total	18 (18-0-36)	

Second semester

Course Code	Course Title	Credits
EIB 3101	English Communication for People Operations	3 (3-0-6)
EIB 3102	Public Speaking and Emceeing	3 (3-0-6)
EIB 3103	International Trade and E-Commerce in English	3 (3-0-6)
EN 3291	Intercultural Business Communication	3 (3-0-6)
EN 4292	Business Article Writing	3 (3-0-6)
Total	15 (15-0-30)	

Fourth Year

First semester

Course Code	Course Title	Credits
EN 4256	Introduction to Business Research Writing	3 (3-0-6)
EN 4232	Business Conversation	3 (3-0-6)
EN 4296	Advanced Listening and Note-taking	3 (3-0-6)
EIB 4102	Critical Thinking and Reading in Business English	3 (3-0-6)
EIB 4101	News Literacy	3 (3-0-6)
Total	15 (15-0-30)	

Second semester

Course Code	Course Title	Credits
EIB 2103	Writing Skill Development	3 (3-0-6)
EIB 2106	English for International Travel Industry	3 (3-0-6)
EIB 4103	Art of Business English Translation OR	3 (3-0-6)
ECD 3932	Media Content Writing (For foreign students)	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
Total	12 (12-0-24)	

French for International Business

First Year

First semester

Course Code	Course Title	Credits
BBA 1001	Business Exploration	3 (3-0-6)
BBA 1102	Data and Information Literacy	3 (2-2-5)
ELE 1001	Communicative English I	3 (2-3-6)
FIB 1515	Fundamental French	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
Total		15 (13-5-29)

Second semester

Course Code	Course Title	Credits
BBA 1012	Entrepreneurial Marketing	3 (3-0-6)
ELE 1002	Communicative English II	3 (2-3-6)
FIB 1516	Communicative French I	3 (3-0-6)
FIB 1517	French Culture and Society	3 (3-0-6)
GL 1101	Elements of Spoken Language	3 (3-0-6)
Total		15(14-3-30)

Second Year

First semester

Course Code	Course Title	Credits
CA 1202	Computer Graphics for Presentation Design for Pitching	3 (3-0-6)
ELE 2000	Academic English	3 (2-3-6)
GE 2202	Ethics	3 (3-0-6)
GL 2101	Introduction to Language	3 (3-0-6)
FIB 2518	Communicative French II	3 (3-0-6)
FIB 2519	French Pronunciation	3 (3-0-6)
Total		18 (17-3-36)

Second semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
GL 2102	Communication in International Business	3 (3-0-6)
FIB 2520	Advanced French	3 (3-0-6)
FIB 2521	Listening and Speaking Skills in French	3 (3-0-6)
FIB 2522	Reading and Writing Skills in French	3 (3-0-6)
Total		15 (14-3-30)

Third Year

First semester

Course Code	Course Title	Credits
GE 2103	Art of Reasoning	3 (3-0-6)
GL 3104	Language, Culture, and Society	3 (3-0-6)
FIB 3523	Business French I	3 (3-0-6)
FIB 3525	Translation Studies (Thai students ONLY) OR	3 (3-0-6)
FIB 3539	Intercultural Communication Strategies for French-Speaking Contexts. (Non-Thai Students)	
	One Business Language Elective Course	3 (3-0-6)
Total		15 (15-0-36)

Second semester

Course Code	Course Title	Credits
FIB 3524	French Media Literacy	3 (3-0-6)
FIB 3527	Advanced Listening and Speaking Skills in French	3 (3-0-6)
FIB 3528	Advanced Reading and Writing skills in French	3 (3-0-6)
FIB 3529	Advanced French Grammar	3 (3-0-6)

One Business Language Elective Courses	3 (3-0-6)
One Free Elective Course	3 (3-0-6)
Total	18 (18-0-36)

**Fourth Year
First semester**

Course Code	Course Title	Credits
FIB 4530	Business French II	3 (3-0-6)
FIB 4531	Aspects of French-Speaking Countries	3 (3-0-6)
FIB 4532	French for Academic Purposes	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
	Two Business Language Elective Courses	6 (6-0-12)
Total	18 (18-0-36)	

Second semester

Course Code	Course Title	Credits
	One Business Language Elective Course	3 (3-0-6)
	Three General Education Elective Course	9 (9-0-18)
Total	12 (12-0-24)	

Chinese for International Business

First Year

First semester

Course Code	Course Title	Credits
BBA 1001	Business Exploration	3 (3-0-6)
BBA 1102	Data and Information Literacy	3 (2-2-5)
ELE 1001	Communicative English I	3 (2-3-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
CN 1400	Introduction to Chinese	3 (3-0-6)
	One General Education Elective Course	3 (3-0-6)
Total	18 (16-5-35)	

Second semester

Course Code	Course Title	Credits
BBA 1012	Entrepreneurial Marketing	3 (3-0-6)
CA 1202	Computer Graphics for Presentation Design for Pitching	3 (3-0-6)
ELE 1002	Communicative English II	3 (2-3-6)
GL 1101	Elements of Spoken Language	3 (3-0-6)
CN 1401	Chinese I	3 (3-0-6)
	One General Education Elective Course	3 (3-0-6)
Total	18 (17-3-36)	

First semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GL 2101	Introduction to Language	3 (3-0-6)
GL 2102	Communication in International Business	3 (3-0-6)
CN 2401	Chinese II	3 (3-0-6)
CIB 2433	Oral Comprehension and Expression in Chinese I	3 (3-0-6)
Total	18 (17-3-36)	

Second semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
GE 2202	Ethics	3 (3-0-6)
GL 3104	Language, Culture, and Society	3 (3-0-6)
CN 2402	Chinese III	3 (3-0-6)
CIB 2434	Oral Comprehension and Expression in Chinese II	3 (3-0-6)

One General Education Elective Course 3 (3-0-6)
Total 18 (17-3-36)

Third Year

First semester

Course Code	Course Title	Credits
CN 3403	Chinese IV	3 (3-0-6)
CN 3420	Integrated Chinese Skills	3 (3-0-6)
CN 3436	Chinese Business Conversation I	3 (3-0-6)
CN 3450	Introduction to Chinese Writing	3 (3-0-6)
CN 3470	Translation I: Chinese-Thai OR	3 (3-0-6)
CIB 3487	Chinese for Business in Digital Age I (International Students ONLY)	
	One Business Language Elective Course	3 (3-0-6)
	Total 18 (18-0-36)	

Second semester

Course Code	Course Title	Credits
CN 3437	Chinese Business Conversation II	3 (3-0-6)
CN 3451	Communicative Writing in Chinese	3 (3-0-6)
CN 3463	Introduction to Chinese Culture	3 (3-0-6)
	One Business Language Elective Course	3 (3-0-6)
	Total 12 (12-0-24)	

Fourth Year

First semester

Course Code	Course Title	Credits
CN 4445	Reading Chinese Media	3 (3-0-6)
CN 4453	Business Writing in Chinese	3 (3-0-6)
CN 4471	Translation II: Thai-Chinese OR	3 (3-0-6)
CN 4446	Chinese for Digital Media (International students ONLY)	
	One Business Language Elective Course	3 (3-0-6)
	Total 12 (12-0-24)	

Second semester

Course Code	Course Title	Credits
	Two Free Elective Courses	6 (6-0-12)
	Two Business Language Elective Courses	6 (6-0-12)
	Total 12 (12-0-24)	

Japanese for International Business

First Year

First semester

Course Code	Course Title	Credits
BBA 1001	Business Exploration	3 (3-0-6)
BBA 1102	Data and Information Literacy	3 (2-2-5)
ELE 1001	Communicative English I	3 (2-3-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
JA 1700	Introduction to Japanese	3 (3-0-6)
	One General Education Elective Course	3 (3-0-6)
	Total 18 (16-5-35)	

Second semester

Course Code	Course Title	Credits
BBA 1012	Entrepreneurial Marketing	3 (3-0-6)
CA 1202	Computer Graphics for Presentation Design for Pitching	3 (3-0-6)
ELE 1002	Communicative English II	3 (2-3-6)
GL 1101	Elements of Spoken Language	3 (3-0-6)
JA 1701	Japanese I	3 (3-0-6)
	One General Education Elective Course	3 (3-0-6)
	Total 18 (17-3-36)	

Second Year
First semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
GE 2202	Ethics	3 (3-0-6)
GL 2101	Introduction to Language	3 (3-0-6)
GL 2102	Communication in International Business	3 (3-0-6)
JA 2701	Japanese II	3 (3-0-6)
JA 2703	Basic Reading and Writing I	3 (3-0-6)
Total 18 (17-3-36)		

Second semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
GL 3104	Language, Culture, and Society	3 (3-0-6)
JA 2702	Japanese III	3 (3-0-6)
JA 2704	Basic Reading and Writing II	3 (3-0-6)
JIB 2705	Kanji Studies	3 (3-0-6)
	One General Education Elective Course	3 (3-0-6)
Total 18 (17-3-36)		

Third Year
First semester

Course Code	Course Title	Credits
GE 2103	Art of Reasoning	3 (3-0-6)
JA 3722	Japanese Reading and Oral Report	3 (3-0-6)
JIB 3747	Oral Comprehension and Expression in Japanese	3 (3-0-6)
JIB 3748	Intermediate Japanese Grammar I	3 (3-0-6)
	One Business Language Elective Course	3 (3-0-6)
Total 15 (15-0-30)		

Second semester

Course Code	Course Title	Credits
JIB 3749	Intermediate Japanese Grammar II	3 (3-0-6)
JIB 3750	Japanese in Business Communication	3 (3-0-6)
JIB 3751	Effective Japanese Listening and Speaking	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
	One Business Language Elective Course	3 (3-0-6)
Total 15 (15-0-30)		

Fourth Year
First semester

Course Code	Course Title	Credits
JA 4701	Reading in Business Japanese I	3 (3-0-6)
JA 4702	Business Writing in Japanese I	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
	Two Business Language Elective Tracks	6 (6-0-12)
Total 15 (15-0-30)		

Second semester

Course Code	Course Title	Credits
JA 4725	Translation in Business Japanese	3 (3-0-6)
JA 4726	Public Speaking in Japanese	3 (3-0-6)
	One Business Language Elective Course	3 (3-0-6)
Total 9 (9-0-18)		



BACHELOR OF ARTS PROGRAM IN ENGLISH- CHINESE FOR DIGITAL COMMUNICATION

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Arts in English-Chinese for Digital Communication upon students who meet all of the following requirements:

1. Have completed the total number of credits of the curriculum
2. Have obtained a cumulative grade point average of at least 2.00
3. Have participated in 16 sessions of the Professional Ethics Seminar
4. Have obtained library and financial clearance from the University
5. Have demonstrated good behavior and discipline
6. English proficiency standard for undergraduate level Prior to graduation, undergraduate students are obligated to meet the minimum English proficiency requirement specified in one of the following criteria

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Have a sense of social and self-responsibility and become ethical citizens of the society.
2. Have up-to-date and business language skills both in French and in English for listening, speaking, reading and writing.
3. Demonstrate skills and expertise in applying the knowledge to real life context and solving problems creatively and efficiently
4. Able to work and communicate effectively with both Thai and international people with respect and courtesy.
5. Able to use computer and other technologies in communicating and presenting information.

Bachelor of Arts Program In English-Chinese for Digital Communication

Curriculum Structure

Total number of credits	132	Credits
A. General Education Courses	30	Credits
Language Courses	14	Credits
Social Science Courses	9	Credits
Humanities Courses	2	Credits
Science and Mathematics Courses	5	Credits
B. Specialized Courses	96	Credits
Core Courses	24	Credits
Major Required Courses	57	Credits
Concentration Courses	15	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	30	Credits
Language Courses	14	Credits
ELE 1001	Communicative English I	3 (2-3-6)
ELE 1002	Communicative English II	3 (2-3-6)
ELE 2000	Academic English	3 (2-3-6)
ELE 2001	Advanced Academic English	3 (2-3-6)
GE 1410	Thai for Professional Communication OR	2 (2-0-4)
GE 1411	Thai Language for Multicultural Communication OR (for non-Thai students)	
GE 1412	Introductory Thai Usage (for Thai students from international program)	
Social Science Courses	9	Credits
GE 2202	Ethics	3 (3-0-6)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
BBA 1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
Humanities Courses	2	Credits
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
Science and Mathematics Courses	5	Credits
GE 1303	Science for Sustainable Future	2 (2-0-4)
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
B. Specialized Courses:	96	Credits
Core Courses	24	Credits
BBA 1102	Data and Information Literacy	3 (2-2-5)
BDM 3201	Digital Business	3 (2-2-5)
BDM 3202	Digital Commerce	3 (2-2-5)
BDM 3204	Enterprise Resource Planning	3 (2-2-5)
BDM 3205	Information Systems Strategy, Management, and Acquisition	3 (2-2-5)
CN 1400	Introduction to Chinese OR	3 (3-0-6)
ECD 1900	Chinese Intercultural (Only for native Chinese students, or students who have certificate of HSK level 5 with score of 200)	3 (3-0-6)
CN 1401	Chinese I	3 (3-0-6)
ECD 4934	English/Chinese Internship	3 (3-0-6)
Major Required Courses	57	Credits
Business English		
EN 3290	English for Entrepreneurship	3 (3-0-6)
EN 3291	Intercultural Business Communication	3 (3-0-6)
EN 3295	English for Online Business	3 (3-0-6)

EN 4232	Business Conversation	3 (3-0-6)
EN 4259	New Media Literacy	3 (3-0-6)
ECD 2930	English Listening and Speaking in Digital Era	3 (3-0-6)
ECD 3931	Media Storytelling	3 (3-0-6)
ECD 3932	Media Content Writing	3 (3-0-6)
ECD 4933	Art of Persuasion	3 (3-0-6)
ECD 4935	Trends in Communicative Digitalization	3 (3-0-6)
	Business Chinese	
CN 1430	Listening and Speaking in Chinese I	1 (1-0-2)
CN 1431	Listening and Speaking in Chinese II	1 (1-0-2)
CN 2401	Chinese II	3 (3-0-6)
CN 2431	Chinese Oral Comprehension and Expression I	2 (2-0-4)
CN 2432	Chinese Oral Comprehension and Expression II	2 (2-0-4)
CN 3436	Chinese Business Conversation I	3 (3-0-6)
CN 3450	Introduction to Chinese Writing	3 (3-0-6)
ECD 2902	Developing Comprehensive Chinese	3 (3-0-6)
ECD 3911	Progressive Chinese for Communication	3 (3-0-6)
ECD 3912	Communicative Chinese in Digital Media	3 (3-0-6)
ECD 4913	Trends in Chinese Digital Media	3 (3-0-6)
Concentration Courses		15 Credits
English for Hospitality and Service Industry		
EN 3281	English for Tourism	3 (3-0-6)
EN 3283	English for International Trade	3 (3-0-6)
EN 3288	English for Airline Business	3 (3-0-6)
EN 3293	English for Human Resources	3 (3-0-6)
EN 3294	English for Hotel Services	3 (3-0-6)
Chinese for Hospitality and Service Industry		
CN 3441	Chinese Reading and Oral Report	3 (3-0-6)
CN 3481	Chinese for Tourism	3 (3-0-6)
CN 3483	Chinese for Service Industries	3 (3-0-6)
CN 3484	Chinese for Office Management	3 (3-0-6)
CN 3485	Chinese for Hotel Services	3 (3-0-6)
Communication Arts		
AAD 2008	Digital Photography	3 (2-2-5)
CA 1101	Introduction to Strategic Communication	3 (3-0-6)
CA 1102	Introduction to Creative Communication	3 (3-0-6)
CA 1103	Introduction to Computer Graphic Design	3 (2-2-5)
CA 1104	Creative Production Management	3 (2-2-5)
Music Business		
MB 2531	Music Business	3 (3-0-6)
MP 1400	Music Production Skills	2 (2-0-4)
MS 1001	Major Instrument I	2 (1-2-3)
MS 1002	Major Instrument II	2 (1-2-3)
MU 1131	Pop Songwriting (Thai) OR	3 (3-0-6)
MU 1132	Pop Songwriting (English)	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
Digital Communication Technologies		
ITX 2005	Design Thinking	3 (3-0-6)
ITX 2009	Presentation and Data Visualization Techniques	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
ITX 4518	Blockchain and Digital Currencies	3 (3-0-6)

C. Free Elective Courses

6 Credits

Students can take free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any).

Study Plan
First Year
First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BBA 1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
CN 1400	Introduction to Chinese OR	3 (3-0-6)
ECD 1900	Chinese Intercultural Communication (only for native Chinese students, or students who have certificate of HSK level 5 with score of 200)	
CN 1430	Listening and Speaking in Chinese I	1 (1-0-2)
GE 1410	Thai for Professional Communication OR	2 (2-0-4)
GE 1411	Thai Language for Multicultural Communication (for non-Thai students) OR	
GE 1412	Introductory Thai Usage (for Thai students from international schools)	
Total 13 (12-3-26)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
GE 1303	Science for Sustainable Future	2 (2-0-4)
GE 2202	Ethics	3 (3-0-6)
CN 1401	Chinese I	3 (3-0-6)
CN 1431	Listening and Speaking in Chinese II	1 (1-0-2)
Total 16 (15-3-32)		

Second Year
First Semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
ECD 2930	English Listening and Speaking in Digital Era	3 (3-0-6)
BBA 1102	Data and Information Literacy	3 (2-2-5)
CN 2401	Chinese II	3 (3-0-6)
CN 2431	Chinese Oral Comprehension and Expression I	2 (2-0-4)
Total 17 (14-7-32)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
EN 3295	English for Online Business	3 (3-0-6)
EN 3291	Intercultural Business Communication	3 (3-0-6)
BDM 3201	Digital Business	3 (2-2-5)
ECD 2902	Developing Comprehensive Chinese	3 (3-0-6)
CN 2432	Chinese Oral Comprehension and Expression II	2 (2-0-4)
Total 17 (15-5-33)		

Third Year**First Semester**

Course Code	Course Title	Credits
EN 3290	English for Entrepreneurship	3 (3-0-6)
BDM 3202	Digital Commerce	3 (2-2-5)
ECD 3931	Media Storytelling	3 (3-0-6)
ECD 3911	Progressive Chinese for Communication	3 (3-0-6)
CN 3436	Chinese Business Conversation I	3 (3-0-6)
	One Concentration Course	3 (3-0-6)
Total 18 (17-2-35)		

Second Semester

Course Code	Course Title	Credits
ECD 3932	Media Content Writing	3 (3-0-6)
BDM 3204	Enterprise Resource Planning	3 (2-2-5)
CN 3450	Introduction to Chinese Writing	3 (3-0-6)
ECD 3912	Communicative Chinese in Digital Media	3 (3-0-6)
	One Concentration Course	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
Total 18 (17-2-35)		

Fourth Year**First Semester**

Course Code	Course Title	Credits
EN 4232	Business Conversation	3 (3-0-6)
BDM 3205	Information Systems Strategy, Management, and Acquisition	3 (2-2-5)
ECD 4933	Art of Persuasion	3 (3-0-6)
ECD 4913	Trends in Chinese Digital Media	3 (3-0-6)
ECD 4934	English/Chinese Internship	3 (3-0-6)
	One Concentration Course	3 (3-0-6)
Total 18 (17-2-35)		

Second Semester

Course Code	Course Title	Credits
EN 4259	New Media Literacy	3 (3-0-6)
ECD 4935	Trends in Communicative Digitalization	3 (3-0-6)
	One Concentration Course	3 (3-0-6)
	One Concentration Course	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
Total 15 (15-0-30)		





LOUIS NOBIRON SCHOOL OF MUSIC





BACHELOR OF ARTS

PROGRAM IN MUSIC ENTREPRENEURSHIP

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Arts in Music Entrepreneurship upon students who meet all of the following requirements:

- Have completed the total number of 132 credits required for the curriculum with accumulative grade point average (GPA) of at least 2.00
- Have passed at least 70% of AU English Proficiency Assessment, or score 90 on TOEFL (iBT), or score 575 on TOEFL (P), or score 6.5 on IELTS
- Have completed MB 4000 Internship in Music Entrepreneurship with at least 240 hrs.
- Have completed MB 4538 Concert Management with S (Satisfactory)
- Have participated in music events stipulated in MU 7001-8 Concert and Seminar Attendance I-VIII
- Have participated in 16 sessions of the BG 14031-BG 14038 Professional Ethics Seminar
- Have obtained library and financial clearance from the University.
- Have demonstrated good behavior and discipline.

OBJECTIVES

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Have knowledge in business, entrepreneurial spirit and skills in performance, composition, arrangement and music technology with individual creativity essential for music entrepreneurial careers as performers, writers, producers, or teachers.
2. Understand the code of ethics in the music industry and entrepreneurial spirit.
3. Have awareness of the impact of music on society and community well-being.
4. Have social understanding and appreciation of the value of musical service to community and culture, as well as the necessity of continuous improvement in their careers.
5. Integrate their professional growth and intellectual development with their interpersonal skills.
6. Able to interact with people in the music business and with the audience during music performance.
7. Able to use information technology and other technologies in communicating and presenting information.

Bachelor of Arts Program in Music Entrepreneurship

Curriculum Structure

Total number of credits	123	Credits
A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
General Education Elective Courses	9	Credits
B. Specialized Courses	93	Credits
Core Courses	36	Credits
Practice-Based Courses	30	Credits
Personalised Track Courses	15	Credits
Major Elective Courses	12	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
ELE 1001 Communicative English I	3	(2-3-6)
ELE 1002 Communicative English II	3	(2-3-6)
ELE 2000 Academic English	3	(2-3-6)
ELE 2001 Advanced Academic English	3	(2-3-6)
GE 2202 Ethics	3	(3-0-6)
General Education Elective Courses	9	Credits
AD 3280 Inspiration, Lifestyles and Popular Culture	3	(2-2-5)
ADX 1101 Art and Design Appreciation	3	(3-0-6)
ADX 1102 Design Culture Exposure	2	(0-4-4)
ADX 1140 Journey for Urban Art and Culture Exploration	3	(3-0-6)
ADX 1240 Artist Studio (Painting and Rendering)	3	(2-2-5)
ADX 1303 Design Communication	3	(2-2-5)
ADX 1304 Design Fundamental	3	(2-2-5)
CA 1110 Art and Beauty of Living	3	(2-2-5)
CA 1201 Creative Photography	3	(2-2-5)
CA 1202 Computer Graphic for Presentation Design for Pitching	3	(2-2-5)
CSX 3001 Fundamentals of Computer Programming	3	(3-0-6)
EG 1001 Digital Literacy	3	(3-0-6)
EG 1002 Application Design for Everyone Literacy	3	(3-0-6)
EG 1003 Introduction to Internet of Things (IoTs) Literacy	3	(3-0-6)
EG 1004 Artificial Intelligence for beginners	3	(3-0-6)
EG 1005 3D Modelling and 3D Printing Technology	3	(3-0-6)
FT 1003 Food Factory Explore Trip (Special course)	3	(3-0-6)
FT 1004A Food-Agri-Bio Tech Trend Update (Part A)	2	(2-0-4)
FT 1004B Food-Agri-Bio Tech Trend Update (Part B)	1	(1-0-2)
FT 1005 Sustainability and Circular Living	3	(3-0-6)
FT 2003A Foods Changing the World (Part A)	2	(2-0-4)
FT 2003B Foods Changing the World (Part B)	2	(2-0-4)
FT 2004 Drinkology: The Art of drinking	3	(3-0-6)
FT 2005 Food Zodiac	3	(3-0-6)
GE 1104 Thai Historical Perspectives	3	(3-0-6)
GE 1107 Perspectives in Politics and Economy	3	(3-0-6)
GE 1204 Physical Education	1	(0-2-1)
GE 1205 ASEAN Ways	3	(3-0-6)
GE 1209 Psychology Application in Daily Life	3	(3-0-6)
GE 1302 Ecology and Sustainability	3	(3-0-6)
GE 1303 Science for Sustainable Future	2	(2-0-4)
GE 1403 Thai Language for Professional Communication (For Thai students)	3	(3-0-6)
GE 1409 Thai Language for Intercultural Communication (For Non-Thai students)	3	(3-0-6)

GE 1410	Thai for Profession Communication (For Thai students)	2 (2-0-4)
GE 1411	Thai Language for Multicultural Communication (For Non-Thai students)	2 (2-0-4)
GE 1412	Introductory Thai Usage (For Thai students from International Program)	2 (2-0-4)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
LLB 1501	Business Law (For Non-Law students)	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law (For Non-Law students)	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business (For Non-Law students)	3 (3-0-6)
LLB 4806	Business and Human Rights (For Non-Law students)	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 2531	Music Business	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support (For Non-Nursing students)	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior (For Non-Nursing students)	3 (3-0-6)

B. Specialized Courses

96 Credits

Core Courses

36 Credits

MB 3542	Design Thinking in Music Business	3 (3-0-6)
MB 3551	Creative Music Entrepreneurship	3 (3-0-6)
MP 2512	Video Production for Musician	3 (2-2-5)
MP 2521	Visual Media for Musician I	3 (2-2-5)
MP 2522	Visual Media for Musician II	3 (2-2-5)
MS 1101	Music Concentration I	3 (3-0-6)
MS 1102	Music Concentration II	3 (3-0-6)
MS 1103	Music Concentration III	3 (3-0-6)
MS 1104	Music Concentration IV	3 (3-0-6)
MS 1105	Music Concentration V	3 (3-0-6)
MS 1106	Music Concentration VI	3 (3-0-6)
MU 0123	Keyboard Skill	Non-credit
MU 0124	Chorus	Non-credit
MU 1234	Musical Structure and Analysis	3 (2-3-6)
MU 7001-6	Concert and Seminar Attendance I-VI	Non-credit
Practice-Based Courses		30 Credits
MU 1161	Event Management	3 (3-0-6)

	MU 2161	Music Label Simulation I	3 (3-0-6)
	MU 2162	Music Label Simulation II	3 (3-0-6)
	MU 3161	Collaborative Industry Project I	3 (3-0-6)
	MU 3162	Collaborative Industry Project II	3 (3-0-6)
	MU 3261	Senior Project I	3 (3-0-6)
	MU 3262	Senior Project II	3 (3-0-6)
	MU 1261	Concert Management I	3 (3-0-6)
	MU 1262	Concert Management II	3 (3-0-6)
	MU 1263	Concert Management III	3 (3-0-6)
	MU 4560	Music Entrepreneurship Seminar	Non-credit
Personalised Track Courses			15 Credits
Music Production			
	MB 4555	Music Label Management	3 (3-0-6)
	MP 4433	Mixing and Mastering	3 (2-3-4)
	MP 4443	Live Sound Engineering	3 (2-3-4)
	MP 4444	Studio Recording	3 (2-3-4)
	MU 4131	Commercial Music Arranging	3 (2-3-4)
Music Business			
	MB 3541	Online social media for Music Business	3 (3-0-6)
	MB 3543	Music Entrepreneurship Startup	3 (3-0-6)
	MB 4535	Digital Creativity in Music Promotion	3 (3-0-6)
	MB 4555	Music Label Management	3 (3-0-6)
	MB 4562	Data Visualization	3 (3-0-6)
Artist Development			
	MB 3561	Artist and Music Management	3 (3-0-6)
	MP 4444	Studio Recording	3 (2-3-4)
	MU 1301	Music Fundamentals I	3 (2-3-6)
	MU 1302	Music Fundamentals II	3 (2-3-6)
	MU 3551	Acting for Musicians	3 (1-4-4)
Interdisciplinary Studies			
	MU 4901	Interdisciplinary Studies I	3 (3-0-6)
	MU 4902	Interdisciplinary Studies II	3 (3-0-6)
	MU 4903	Interdisciplinary Studies III	3 (3-0-6)
	MU 4904	Interdisciplinary Studies IV	3 (3-0-6)
	MU 4905	Interdisciplinary Studies V	3 (3-0-6)
Major Elective Courses			12 Credits
Students can choose 12 credits from any personalized track above or the courses listed below			
	EN 3289	English for Music Business	3 (3-0-6)
	MB 1111	Happiness, Passion, and Aesthetics	3 (3-0-6)
	MB 1500	Introduction to Data Science	3 (3-0-6)
	MB 2531	Music Business	3 (3-0-6)
	MB 2532	Music Industry	3 (3-0-6)
	MB 2541	Finance and Accounting for Music Entrepreneur	3 (3-0-6)
	MB 3440	Virtual Band in Globalization Era	3 (2-3-4)
	MB 3512	Legal Aspects of Music Business	3 (3-0-6)
	MB 3534	Music Management and Entrepreneurship	3 (3-0-6)
	MB 3535	Music Licensing	3 (3-0-6)
	MB 3536	Viral Music Marketing	3 (3-0-6)
	MB 3537	Music Career Exposure	3 (3-0-6)
	MB 3538	History of Music Industry in Thailand	3 (3-0-6)
	MB 3545	Digital Marketing for Music Entrepreneur	3 (3-0-6)
	MB 3549	Music Entrepreneurship Research	3 (3-0-6)
	MB 3550	Feasibility Study for Music Entrepreneur	3 (3-0-6)
	MB 3561	Artist and Music Management	3 (3-0-6)
	MB 4000	Internship in Music Entrepreneurship	0 (240 hrs.)
	MB 4510	Project Management for Music Entrepreneur	3 (3-0-6)
	MB 4512	Music in Film Industry	3 (3-0-6)
	MB 4533	Digital Music Publishing	3 (3-0-6)
	MB 4534	Music Label Simulation	3 (3-0-6)

MB 4535	Digital Creativity in Music Promotion	3 (3-0-6)
MB 4540	Music Business Data Analysis	3 (3-0-6)
MB 4541	Music Business Finance and Accounting	3 (3-0-6)
MB 4550	Business Intelligence and Data Analytics	3 (3-0-6)
MB 4560	Machine Learning and Data Mining	3 (3-0-6)
MB 4561	AI Application in Music Business	3 (3-0-6)
MB 7003	Corporate Communication & Brand Management	3 (3-0-6)
MB 7004	Innovative Marketing Communication Campaign	3 (3-0-6)
MC 1260	Instrumentation and Score Preparation	2 (1-2-3)
MC 2161	Jazz Theory I	3 (3-0-6)
MC 2162	Jazz Theory II	3 (3-0-6)
MC 2163	Jazz Theory III	3 (3-0-6)
MC 2260	Introduction to Film Scoring	2 (2-0-4)
MC 2351	Piano Accompaniment I	1 (0-2-1)
MC 2352	Piano Accompaniment II	1 (0-2-1)
MC 2353	Piano Accompaniment III	1 (0-2-1)
MC 2361	Jazz Improvisation I	1 (0-2-1)
MC 2362	Jazz Improvisation II	1 (0-2-1)
MC 2363	Jazz Improvisation III	1 (0-2-1)
MC 2661	Improvisation for Composition I	2 (1-2-3)
MC 2662	Improvisation for Composition II	2 (1-2-3)
MC 3261	Dramatic Scoring	3 (3-0-6)
MC 3262	Dramatic Orchestration for Film	3 (3-0-6)
MC 3271	Jazz Composition and Arranging I	3 (3-0-6)
MC 3272	Jazz Composition and Arranging II	3 (3-0-6)
MC 3351	Conducting	3 (2-3-6)
MC 4011	Arranging and Orchestration I	2 (2-0-4)
MC 4012	Arranging and Orchestration II	2 (2-0-4)
MC 4160	Jazz Composition	3 (3-0-6)
MC 4561	Yamaha Music Pedagogy	3 (3-0-6)
MC 4562	Entrepreneurship for Musicians	3 (3-0-6)
MP 1400	Music Production Skills	2 (2-0-4)
MP 2400	Audio Fundamentals	3 (3-0-6)
MP 3411	Song Demo Production	3 (1-4-4)
MP 3420	Music Notation Software	2 (1-2-3)
MP 3421	Critical Listening	3 (2-3-4)
MP 3422	Synthesizer Basic	1 (0-2-1)
MP 3423	Pro Tools	2 (1-2-3)
MP 3424	Logic	2 (1-2-3)
MP 3425	Cubase	2 (1-2-3)
MP 3426	Ableton Live	2 (1-2-3)
MP 3427	Synthesizer and Drum Beat Programming	3 (2-3-4)
MP 3428	Live Sound Reinforcement	3 (1-4-4)
MP 3429	Sound in Digital Domain	3 (3-0-6)
MP 3431	Music Production Analysis	3 (2-3-4)
MP 3440	Audio Surgery Skills	3 (3-0-6)
MP 3441	Music Production with Pro Tools	3 (2-3-4)
MP 3442	Synthesizer and Sound Design	3 (2-3-1)
MP 3443	Digital Audio Workstation	3 (2-3-1)
MP 3444	Podcast and Live Streaming	3 (2-3-1)
MP 3445	Audio post-production for film and TV	3 (2-3-1)
MP 3520	Final Cut Pro	3 (2-3-4)
MP 3521	Music Video Production	3 (1-4-4)
MP 4420	Electronic Music Production	3 (3-0-6)
MP 4421	Digital DJ	3 (3-0-6)
MP 4422	Sound Design	3 (1-4-4)
MP 4423	Microphone Techniques	3 (1-4-4)
MP 4424	Music Production Skills	3 (1-4-4)
MP 4432	Audio Recording	3 (2-3-4)
MP 4434	DaVinci Resolve	3 (2-3-4)

MP 4435	Jingle Writing	3 (2-3-4)
MP 4436	Film Scoring	3 (2-3-4)
MP 4437	Reaper Plugin Programming	3 (2-3-4)
MP 4441	Music Production Management	3 (6-0-3)
MP 4442	Music as Audio	3 (2-2-5)
MS 1001	Major Instrument I	2 (1-2-3)
MS 1002	Major Instrument II	2 (1-2-3)
MS 1003	Major Instrument III	2 (1-2-3)
MS 1004	Major Instrument IV	2 (1-2-3)
MS 1005	Major Instrument V	2 (1-2-3)
MS 1006	Major Instrument VI	2 (1-2-3)
MS 1007	Major Instrument VII	2 (1-2-3)
MS 2001	Minor Instrument I	2 (1-2-3)
MS 2002	Minor Instrument II	2 (1-2-3)
MS 2003	Minor Instrument III	2 (1-2-3)
MS 2004	Minor Instrument IV	2 (1-2-3)
MS 3001	Songwriting I	2 (1-2-3)
MS 3002	Songwriting II	2 (1-2-3)
MS 3003	Songwriting III	2 (1-2-3)
MS 3104	Music Composition I	2 (1-2-3)
MS 3105	Music Composition II	2 (1-2-3)
MS 3106	Music Composition III	2 (1-2-3)
MS 3401	Advanced Production Skill I	2 (3-2-1)
MS 3402	Advanced Production Skill II	2 (3-2-1)
MS 3403	Advanced Production Skill III	2 (3-2-1)
MS 4431	Music Production Portfolio I	2 (1-2-3)
MS 4432	Music Production Portfolio II	2 (1-2-3)
MS 4433	Music Production Portfolio III	2 (1-2-3)
MS 9001	Independent Music Study I	2 (1-2-3)
MS 9002	Independent Music Study II	2 (1-2-3)
MS 9003	Independent Music Study III	2 (1-2-3)
MS 9004	Independent Music Study IV	2 (1-2-3)
MS 9005	Independent Music Study V	2 (1-2-3)
MS 9006	Independent Music Study VI	2 (1-2-3)
MU 0121	Advanced Ear Training I	1 (0-2-1)
MU 0122	Advanced Ear Training II	1 (0-2-1)
MU 0201	Music Ensemble I	1 (0-2-1)
MU 0202	Music Ensemble II	1 (0-2-1)
MU 0203	Music Ensemble III	1 (0-2-1)
MU 0204	Music Ensemble IV	1 (0-2-1)
MU 0301	String Ensemble I	3 (1-4-4)
MU 0302	String Ensemble II	3 (1-4-4)
MU 1133	Italian Language and Culture through Music	3 (3-0-6)
MU 1200	Music and Choreography	3 (1-4-4)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 1303	Music Fundamentals III	3 (3-0-6)
MU 1304	Music Fundamentals IV	3 (3-0-6)
MU 1502	Chorus II	1 (0-2-1)
MU 1958	Thongchai McIntyre Studies	3 (3-0-6)
MU 2002	Bodyslam Studies	3 (3-0-6)
MU 2211	History of Thai Music	3 (3-0-6)
MU 2221	Popular Music Literature	3 (3-0-6)
MU 2333	Guitar Skills	1 (0-2-1)
MU 2360	Basic Improvisation	1 (0-2-1)
MU 2503	Chorus III	1 (0-2-1)
MU 2504	Chorus IV	1 (0-2-1)
MU 2511	Vocal Diction I	1 (1-0-2)
MU 2512	Vocal Diction II	1 (1-0-2)
MU 2513	Vocal Diction III	1 (1-0-2)
MU 2514	Vocal Diction IV	1 (1-0-2)

MU 3121	Composition	3 (3-0-6)
MU 3133	Commercial Songwriting	3 (3-0-6)
MU 3134	Jingle Writing	3 (3-0-6)
MU 3135	Jazz Songwriting	3 (3-0-6)
MU 3231	Music Genre Studies	3 (3-0-6)
MU 3232	Hip-Hop and Rap Music	3 (3-0-6)
MU 3241	Vocal Literature	3 (3-0-6)
MU 3251	History of Music I	3 (3-0-6)
MU 3252	History of Music II	3 (3-0-6)
MU 3351	Conducting	3 (2-3-4)
MU 3551	Acting for Musicians	3 (1-4-4)
MU 3552	The Art of Guitar Making	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 3603	Music, Health, and Well-being	3 (3-0-6)
MU 3604	Music and Gender Studies	3 (3-0-6)
MU 3701	Music Education Management	3 (3-0-6)
MU 3702	Music Curriculum and Instruction	3 (3-0-6)
MU 3703	Methodology of Music Teaching	3 (3-0-6)
MU 3704	Music Teaching	3 (2-1-6)
MU 4103	Form and Analysis	3 (3-0-6)
MU 4112	Arranging	3 (3-0-6)
MU 4130	Music for Visual Media	3 (2-2-5)
MU 4136	Advanced Jazz Songwriting	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
MU 4539	Music Cognition	3 (3-0-6)
MU 4545	Careers and Professions in Music	3 (3-0-6)
MU 4750	Music Pedagogy	3 (3-0-6)
MU 4960-99	Selected Topic [in Interdisciplinary Studies]	3 (3-0-6)
SRX 1101	Happiness Advantage	1 (1-0-2)
SRX 1103	Aesthetic	1 (1-0-2)
SRX 1104	Designing Life with Passion	1 (1-0-2)
SRX 1201	Business Etiquettes and Personal/CEO Branding	2 (2-0-4)
SRX 2101	Empathy and Customer Centric	2 (2-0-4)
SRX 2111	Pitching and Story Telling	2 (2-0-4)
SRX 2201	Legal Aspects in Business, IT, and Creative Industry	2 (2-0-4)
SRX 2202	Well-being for Learning and Life	1 (1-0-2)
SRX 2211	Future Skill Forum	1 (1-0-2)

C. Free Elective Courses

6 Credits

Students can take free elective courses of 6 credits from any available programme in Assumption University upon completion of the prerequisites (if any).

D. Free Elective Courses for Non-Music Students

MB 1001	Music Business Fundamentals	3 (3-0-6)
MP 1001	Music Production Fundamentals	3 (1-4-4)
MS 1300	Introduction to Musical Skills	1 (0-2-1)
MU 1001	Music Appreciation	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1131	Pop Songwriting (Thai)	3 (3-0-6)
MU 1132	Pop Songwriting (English)	3 (3-0-6)

Study Plan**First Year****First Semester**

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (3-2-6)
BG 14031	Professional Ethics Seminar I	Non-credit
MS 1101	Music Concentration I	3 (3-0-6)
MU 1161	Event Management	3 (3-0-6)
MP 2521	Visual Media for Musician I	3 (2-2-5)
MU 0124	Chorus	Non-credit
MU 1234	Musical Structure and Analysis	3 (2-3-6)
MU 7001	Concert and Seminar Attendance I	Non-credit
Total 15 (13-7-29)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (3-2-6)
BG 14032	Professional Ethics Seminar II	Non-credit
MB 3542	Design Thinking in Music Business	3 (3-0-6)
MP 2522	Visual Media for Musician II	3 (2-2-5)
MS 1102	Music Concentration II	3 (3-0-6)
MU 1261	Concert Management I	3 (3-0-6)
MU 0123	Keyboard Skill	Non-credit
MU 7002	Concert and Seminar Attendance II	Non-credit
Total 15 (15-4-29)		

Second Year**First Semester**

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (3-2-6)
BG 14033	Professional Ethics Seminar III	Non-credit
MS 1103	Music Concentration III	3 (3-0-6)
MU 2161	Music Label Simulation I	3 (3-0-6)
MU 7003	Concert and Seminar Attendance III	Non-credit
Two Personalised Track Courses		6 (6-0-12)
Total 15 (15-2-30)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (3-2-6)
BG 14034	Professional Ethics Seminar IV	Non-credit
GE 2202	Ethics	3 (3-0-6)
MS 1104	Music Concentration IV	3 (3-0-6)
MU 2162	Music Label Simulation II	3 (3-0-6)
MP 2512	Video Production for Musician	3 (2-2-5)
MB 3551	Creative Music Entrepreneurship	3 (3-0-6)
MU 7004	Concert and Seminar Attendance IV	Non-credit
Total 18 (17-4-35)		

Third Year**First Semester**

Course Code	Course Title	Credits
BG 14035	Professional Ethics Seminar V	Non-credit
MS 1105	Music Concentration V	3 (3-0-6)
MU 3161	Collaborative Industry Project I	3 (3-0-6)
MU 3261	Senior Project I	3 (3-0-6)
MU 7005	Concert and Seminar Attendance V	Non-credit
MU 1262	Concert Management II	3 (3-0-6)
One Personalised Track Course		3 (3-0-6)
Total 15 (15-0-30)		

Second Semester

Course Code	Course Title	Credits
BG 14036	Professional Ethics Seminar VI	Non-credit
MS 1106	Music Concentration VI	3 (3-0-6)
MU 3162	Collaborative Industry Project II	3 (3-0-6)
MU 3262	Senior Project II	3 (3-0-6)
MU 1203	Concert Management III	3 (3-0-6)
MU 7006	Concert and Seminar Attendance VI	Non-credit
One Personalised Track Course		3 (3-0-6)
Total		15 (15-0-30)

Fourth Year**First Semester**

Course Code	Course Title	Credits
	Two General Education Elective Courses	6
	Two Major Elective Courses	6
	One Personalised Track Course	3
Total		15

Second Semester

Course Code	Course Title	Credits
	One General Education Elective Courses	3
	Two Major Elective Courses	6
	Two Free Elective Courses	6
Total		15



CATHEDRAL OF LEARNING





ALBERT LAURENCE SCHOOL OF COMMUNICATION ARTS





BACHELOR OF COMMUNICATION ARTS

PROGRAM IN CREATIVE COMMERCIAL COMMUNICATION

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Communication Arts in Creative Commercial Communication upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum.
- Have not been placed on probation in any categories.
- Have obtained a cumulative grade point average of at least 2.00.
- Have participated in 16 sessions of the Professional Ethics Seminar.
- Have obtained library and financial clearance from the University.
- Have demonstrated good behavior and discipline
- Have met the minimum English proficiency requirement specified in one of the following criteria

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

Bachelor of Communication Arts Program In Creative Commercial Communication

Curriculum Structure

Total number of credits	130	Credits
A. General Education Courses	30	Credits
Language Courses	14	Credits
Social Science Courses	9	Credits
Humanities Courses	2	Credits
Science and Mathematics Courses	5	Credits
B. Specialized Courses	94	Credits
Core Courses	36	Credits
Major Required Courses	31	Credits
Concentration Courses	27	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	30	Credits
Language Courses	14	Credits
ELE 1001 Communicative English I	3 (2-3-6)	
ELE1002 Communicative English II	3 (2-3-6)	
ELE 2000 Academic English	3 (2-3-6)	
ELE 2001 Advanced Academic English	3 (2-3-6)	
GE 1410 Thai for Professional Communication (for Thai students) OR	2 (2-0-4)	
GE 1411 Thai Language for Multicultural Communication (for non-Thai students) OR	2 (2-0-4)	
GE 1412 Introductory Thai Usage (for Thai students from International Program)	2 (2-0-4)	
Social Science Courses	9	Credits
BBA 1004 Essential Marketing for Entrepreneurs	2 (2-0-4)	
BBA 1005 Essential Finance for Entrepreneurs	2 (2-0-4)	
BBA 1006 Essential Economics for Entrepreneurs	2 (2-0-4)	
GE 2202 Ethics	3 (3-0-6)	
Humanities Courses	2	Credits
GE 2110 Human Civilizations and Global Citizens	2 (2-0-4)	
Science and Mathematics Courses	5	Credits
BBA 1007 Data Analytics for Entrepreneurs	3 (2-2-5)	
GE 1303 Science for Sustainable Future	2 (2-0-4)	
B. Specialized Courses:	96	Credits
Core Courses	36	Credits
AAD 2008 Digital Photography	3 (2-2-5)	
AAD 3012 Thai Art and Culture	3 (3-0-6)	
CA 1100 Introduction to Human Communication	3 (3-0-6)	
CA 1101 Introduction to Strategic Communication	3 (3-0-6)	
CA 1102 Introduction to Creative Communication	3 (3-0-6)	
CA 1103 Introduction to Computer Graphic Design	3 (2-2-5)	
CA 1104 Creative Production Management	3 (2-2-5)	
CA 1105 Introduction to Innovative Business and Sustainable Communication	3 (3-0-6)	
CA 2102 Introduction to Marketing Communication	3 (2-2-5)	
CA 2110 Media Literacy and Ethical Concerns	3 (3-0-6)	
CA 2120 Interactive and Digital Platform Design	3 (2-2-5)	
CA 2130 Communication Arts Research and Tools	3 (3-0-6)	
Major Required Courses	31	Credits
CA 2100 Psychology and Persuasion in Communication	3 (3-0-6)	
CA 2101 Presentation and Public Speaking	3 (2-2-5)	
CA 3100 Consumer Insight and Tools	3 (3-0-6)	

	CA 3101	Strategic Brand Communication	3 (3-0-6)
	CA 3102	Media Planning	3 (3-0-6)
	CA 3110	Storytelling for Creative Communication	3 (2-2-5)
	CA 3111	Creative Entrepreneurial Project Management	3 (2-2-5)
	CA 3112	Sound Design for Communication	3 (2-2-5)
	CA 3120	Entrepreneurial Principles and Practices for Communication Arts	3 (3-0-6)
	CA 3130	Creative Commercial Communication Internship	1 (160 hours)
	CA 4100	Creative Commercial Communication Workshop	3 (2-2-5)
Concentration Courses			27 Credits
Concentration in Advertising and Brand Communication			
	AD 3200	Strategic Integrated Marketing Communication Planning	3 (3-0-6)
	AD 3201	Data-driven Communication and Advertising Research	3 (2-2-5)
	AD 3202	Customer Journey, Branded Experience and Relationship	3 (3-0-6)
	AD 3203	Idea Generation for Creative Communication	3 (2-2-5)
	AD 4200	Innovative Brand Communication	3 (3-0-6)
	AD 4201	Media Synergy and Content Design	3 (2-2-5)
	AD 4202	Advertising and Brand Communication Workshop	3 (2-2-5)
Concentration in Digital Media Communication			
	DM 3200	Media Context Analysis in the Digital Age	3 (3-0-6)
	DM 3201	Digital Content Resource Management	3 (2-2-5)
	DM 3202	Story Development in Digital Motion Picture	3 (2-2-5)
	DM 3203	Aesthetics of Narrative and Motion Design	3 (2-2-5)
	DM 4200	Rhythm of Narration	3 (2-2-5)
	DM 4201	User Experience Design	3 (2-2-5)
	DM 4202	Digital Media Communication Workshop	3 (2-2-5)
Concentration in Image Management and Public Relations			
	PR 3240	Public Relations Planning for Enterprise and Entrepreneurs	3 (2-2-5)
	PR 3241	Experiential Event Management for Stakeholder Relations	3 (2-2-5)
	PR 3242	Influencer Relations in Digital Context	3 (2-2-5)
	PR 3243	Content Creation in Public Relations Writing	3 (2-2-5)
	PR 4240	Intercultural and International Communication in Global Market	3 (3-0-6)
	PR 4241	Crisis Communication and Reputation Management	3 (3-0-6)
	PR 4242	Image Management and Public Relations Workshop	3 (2-2-5)
Concentration in Innovative Gamification and Content Management			
	AD 3281	Micro Influencer Communication Strategy	3 (2-2-5)
	DM 4201	User Experience Design	3 (2-2-5)
	IG 3200	Applied Gamification	3 (3-0-6)
	IG 3201	Creative Innovation	3 (3-0-6)
	IG 4200	Innovative Gamification and Content Management Workshop	3 (2-2-5)
	LV 3283	Special Event and Festival Management	3 (2-2-5)
	PR 3282	Personal Branding and Image Management	3 (2-2-5)
Concentration in Live Event Creation and Management			
	LV 3301	Script Analysis and Creation for Live Performance	3 (2-2-5)
	LV 3302	Acting Skills Training for Live Performance	3 (2-2-5)
	LV 3212	Art Direction for Live Performance	3 (2-2-5)
	LV 3213	Stage Management for Live Performance	3 (2-2-5)
	LV 4210	Project Management for Live Performance	3 (2-2-5)
	LV 4211	Persuasive Marketing for Live Performance	3 (2-2-5)
	LV 4212	Live Event Creation and Management Workshop	3 (2-2-5)

Students can choose two concentration courses of 6 credits from any concentration of the Albert Laurence School of Communication Arts upon completion of the prerequisites (if any).

AD 3260-64	Selected Topics in Advertising and Brand Communication Concepts	3 (3-0-6)
AD 3270-74	Selected Topics in Advertising and Brand Communication Practices	3 (2-2-5)
AD 3275-84	Selected Topics in Marketing Communication Technology Practices	3 (2-2-5)
DM 3260-64	Selected Topics in Digital Media Communication Concepts	3 (3-0-6)
DM 3270-74	Selected Topics in Digital Media Communication Practices	3 (2-2-5)
PR 3260-64	Selected Topics in Image Management	3 (3-0-6)
PR 3270-74	Selected Topics in Image Management and Public Relations Practices	3 (2-2-5)
IG 3260-64	Selected Topics in Innovative Gamification and Content Management Concepts	3 (3-0-6)
IG 3270-74	Selected Topics in Innovative Gamification and Content Management Practices	3 (2-2-5)
LV 3260-64	Selected Topics in Live Event Creation and Management Concepts	3 (3-0-6)
LV 3270-74	Selected Topics in Live Event Creation and Management Practices	3 (2-2-5)

C. Free Elective Courses

6 Credits

Students can take free elective courses of 6 credits from the Albert Laurence School of Communication Arts or any faculty in Assumption University upon completion of the prerequisites (if any).

AD 3280	Inspiration, Lifestyles and Popular Culture	3(2-2-5)
AD 3281	Micro Influencer Communication Strategy	3 (2-2-5)
AD 3282	Aesthetic Taste for Creative Communication	3 (2-2-5)
AD 3283	Brand Identity Design	3 (2-2-5)
AD 3284	Presentation Design for Pitching	3 (2-2-5)
CA 1110	Art and Beauty of Living	3 (2-2-5)
CDI 3270-74	Selected Topics in Digital Imagery Practices	3 (2-2-5)
DM 3280	Digital Art in Data Visualization	3 (2-2-5)
DM 3281	Arts of Cinematography	3 (2-2-5)
DM 3282	Live Streaming Media	3 (2-2-5)
DM 3283	Online Application Design	3 (2-2-5)
DM 3284	Innovative Digital Technology and Business Applications	3 (2-2-5)
IG 3280	E-sport Business Management	3 (3-0-6)
IG 3281	Content Creation for Game Streaming	3 (2-2-5)
IG 3282	Introduction to Animation and Game	3 (3-0-6)
GDC 3270-74	Selected Topics in Graphic Design Practices	3 (2-2-5)
LV 3280	Costume, Make-up and Styling	3 (2-2-5)
LV 3281	Acting Skills Training for Personality Development	3 (2-2-5)
LV 3282	Set-props Design and Production	3 (2-2-5)
LV 3283	Special Event and Festival Management	3 (2-2-5)
LV 3284	Acting for Camera and Live Performance	3 (2-2-5)
PR 3280	Data-based Content Strategy	3 (2-2-5)
PR 3281	Public Relations Tools and Activities	3 (3-0-6)
PR 3282	Personal Branding and Image Management	3 (2-2-5)
PR 3283	Corporate Image and Social Enterprise	3 (3-0-6)
PR 3284	Current Trends Analysis for Public Relations	3 (2-2-5)

Study Plan
First Year
First Semester

Course Code	Course Title	Credits
AAD 2008	Digital Photography	3 (2-2-5)
ELE 1001	Communicative English I	3 (2-3-6)
CA 1100	Introduction to Human Communication	3 (3-0-6)
CA 1101	Introduction to Strategic Communication	3 (3-0-6)
CA 1104	Creative Production Management	3 (2-2-5)
GE 1410	Thai for Professional Communication (for Thai students) OR	2 (2-0-4)
GE 1411	Thai Language for Multicultural Communication (for non-Thai students) OR	
GE 1412	Introductory Thai Usage (for Thai students from International Program)	
Total		17 (14-7-32)

Second Semester

Course Code	Course Title	Credits
BBA 1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
CA 1102	Introduction to Creative Communication	3 (3-0-6)
CA 1103	Introduction to Computer Graphic Design	3 (2-2-5)
CA 1105	Introduction to Innovative Business and Sustainable Communication	3 (3-0-6)
ELE 1002	Communicative English II	3 (2-3-6)
GE 1303	Science for Sustainable Future	2 (2-0-4)
Total		16 (14-5-31)

Second Year
First Semester

Course Code	Course Title	Credits
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
CA 2100	Psychology and Persuasion in Communication	3 (3-0-6)
CA 2102	Introduction to Marketing Communication	3 (2-2-5)
CA 2120	Interactive and Digital Platform Design	3 (2-2-5)
ELE 2000	Academic English	3 (2-3-6)
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
Total		16 (13-7-30)

Second Semester

Course Code	Course Title	Credits
AAD 3012	Thai Art and Culture	3 (3-0-6)
ELE 2001	Advanced Academic English	3 (3-2-6)
CA 2101	Presentation and Public Speaking	3 (2-2-5)
CA 2110	Media Literacy and Ethical Concerns	3 (3-0-6)
CA 2130	Communication Arts Research and Tools	3 (3-0-6)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
Total		17 (15-5-33)

Third Year
First Semester

Course Code	Course Title	Credits
CA 3100	Consumer Insights and Tools	3 (3-0-6)
CA3101	Strategic Brand Communication	3 (3-0-6)
CA 3102	Media Planning	3 (3-0-6)
CA 3110	Storytelling for Creative Communication	3 (2-2-5)
CA 3112	Sound Design for Communication	3 (2-2-5)
GE 2202	Ethics	3 (3-0-6)
Total		18 (16-4-34)

Second Semester

Course Code	Course Title	Credits
CA 3111	Creative Entrepreneurial Project Management	3 (2-2-5)
CA 3120	Entrepreneurial Principles and Practices for Communication Arts	3 (3-0-6)
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
	Concentration Courses	3 (2-2-5)
	Concentration Courses	3 (2-2-5)
	Concentration Courses	3 (2-2-5)
Total 18 (13-10-31)		

Summer Session

Course Code	Course Title	Credits
CA3130	Creative Commercial Communication Internship	1 (160 hrs)

Fourth Year**First Semester**

Course Code	Course Title	Credits
For Advertising and Brand Communication Concentration		
AD 4202	Advertising and Brand Communication Workshop	3 (2-2-5)
For Digital Media Communication Concentration		
DM 4202	Digital Media Communication Workshop	3 (2-2-5)
For Image Management and Public Relations Concentration		
PR 4242	Image Management and Public Relations Workshop	3 (2-2-5)
For Innovative Gamification and Content Management Concentration		
IG 4200	Innovative Gamification and Content Management Workshop	3 (2-2-5)
For Live Event Creation and Management Concentration		
LV 4211	Live Event Creation and Management Workshop	3 (2-2-5)
	Concentration Courses	3 (2-2-5)
	Concentration Courses	3 (2-2-5)
	Concentration Courses	3 (2-2-5)
	Concentration Courses	3 (2-2-5)
Total 15 (10-10-25)		

Second Semester

Course Code	Course Title	Credits
CA 4100	Creative Commercial Communication Workshop	3 (2-2-5)
	Concentration Courses	3 (2-2-5)
	Free Elective	3 (2-2-5)
	Free Elective	3 (2-2-5)
Total 12 (8-8-20)		



BACHELOR OF COMMUNICATION ARTS

PROGRAM IN CREATIVE COMMUNICATION DESIGN

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Communication Arts in Creative Communication Design upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum.
- Have obtained a cumulative grade point average of at least 2.00.
- Have participated in 16 sessions of the Professional Ethics Seminar.
- Have obtained library and financial clearance from the University.
- Have demonstrated good behavior and discipline.
- Have met the minimum English proficiency requirement specified in one of the following criteria

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follow:

1. Exercise professional ethics and recognize the impact of creative works on the society.
2. Capable of applying theoretical knowledge and technical skills in computer generated imagery to profession.
3. Capable of using skills in critical, logical and analytical thinking to solve problems in their profession and life.
4. Able to work with others in their field
5. Capable of using information technology in the practice of their profession.
6. Capable of using communication skills in Thai and English on conveying message visualizing ideas and presenting professional works.

Bachelor of Fine and Applied Arts Program In Creative Communication Design

Curriculum Structure

Total number of credits	133	Credits
A. General Education Courses	33	Credits
Language Courses	14	Credits
Social Science Courses	9	Credits
Humanities Courses	5	Credits
Science and Mathematics Courses	5	Credits
B. Specialized Courses	94	Credits
Core Courses	39	Credits
Major Required Courses	28	Credits
Major Elective Courses	27	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses			33	Credits
Language Courses			14	Credits
ELE 1001	Communicative English I			3 (2-3-6)
ELE 1002	Communicative English II			3 (2-3-6)
ELE 2000	Academic English			3 (2-3-6)
ELE 2001	Advanced Academic English			3 (2-3-6)
GE 1410	Thai for Professional Communication OR			2 (2-0-4)
GE 1411	Thai Language for Multicultural Communication (for non-Thai students) OR			2 (2-0-4)
GE 1412	Introductory Thai Usage (for Thai students from International Program)			2 (2-0-4)
Social Science Courses			9	Credits
GE 2202	Ethics			3 (3-0-6)
BBA 1004	Essential Marketing for Entrepreneurs			2 (2-0-4)
BBA 1005	Essential Finance for Entrepreneurs			2 (2-0-4)
BBA 1006	Essential of Economics for Entrepreneurs			2 (2-0-4)
Humanities Courses			5	Credits
AAD 3012	Thai Art and Culture			3 (3-0-6)
GE 2110	Human Civilizations and Global Citizens			2 (2-0-4)
Science and Mathematics Courses			5	Credits
GE 1303	Science for Sustainable Future			2 (2-0-4)
BBA 1007	Data Analytics for Entrepreneurs			3 (2-2-5)
B. Specialized Courses			94	Credits
Core Courses			39	Credits
AAD1111	Intensive for Fundamental Drawing			Non-credit
AAD 1001	Drawing and Painting			3 (2-2-5)
AAD 1002	Design Foundation			3 (2-2-5)
AAD 1003	Visual Art Media			3 (2-2-5)
AAD 1004	3D Foundation			3 (2-2-5)
AAD 1005	Fundamental of Typography			3 (2-2-5)
AAD 1006	Digital Illustration			3 (2-2-5)
AAD 2007	Art History and Aesthetics			3(3-0-6)
AAD 2008	Digital Photography			3 (2-2-5)
CA 1100	Introduction to Human Communication			3 (3-0-6)
CA 1103	Introduction to Computer Graphic Design			3 (2-2-5)
CA 1104	Creative Production Management			3 (2-2-5)
CA 2110	Media Literacy and Ethical Concerns			3 (3-0-6)
CA 2120	Interactive and Digital Platform Design			3 (2-2-5)
Major Required Courses			28	Credits
AAD 2009	Visual Language			3 (2-2-5)
AAD 2010	Corporate Visual Identity			3 (2-2-5)
AAD 3011	Layout and Composition			3 (2-2-5)

AAD 3013	Design Management and Creative Innovation	3 (3-0-6)
AAD 3014	CCD Internship	1 (160 Hours)
AAD 4016	CCD Art Thesis I	3 (2-2-5)
AAD 4017	CCD Art Thesis II	3 (2-2-5)
CA 3120	Entrepreneurial Principles and Practices for Communication Arts	3 (3-0-6)
CDI 2202	Motion Graphics and Storytelling	3 (2-2-5)
CDI 3206	Sound Production	3 (2-2-5)

Major Concentration Courses

27 Credits

Students must complete 9 major concentration courses. A ratio of 6:3 completed courses must be selected from one major concentration.

Digital Imagery Concentration

CDI 3203	Animation Foundation and Pre-production	3 (2-2-5)
CDI 3204	3D Modeling	3 (2-2-5)
CDI 3205	Short Animation	3 (2-2-5)
CDI 3207	Concept Art and Visual Development Design	3 (2-2-5)
CDI 3208	3D Animation and Movement Analysis	3 (2-2-5)
CDI 3209	Shading Lighting and Rendering for Game	3 (2-2-5)
CDI 3210	Digital Compositing and Matte Painting	3 (2-2-5)
CDI 3211	Game Design	3 (2-2-5)
CDI 4212	AR and VR Concept Design	3 (2-2-5)

Graphic Design Concentration

GDC 3101	Packaging Design	3 (2-2-5)
GDC 3102	Digital Typeface Design	3 (2-2-5)
GDC 3103	Infographic Design	3 (2-2-5)
GDC 3104	Digital Publication Design	3 (2-2-5)
GDC 3105	Brand Identity System	3 (2-2-5)
GDC 3106	Environmental Graphic & Exhibition Design	3 (2-2-5)
GDC 3107	User Interface and User Experiences Design	3 (2-2-5)
GDC 3108	Photograph Manipulation	3 (2-2-5)
GDC 4109	Applied Motion Graphic Design	3 (2-2-5)

Selected Topic in Communication Arts Practices (optional)

Students can select up to 3 courses as part of the major concentration requirement.

AD 3270-74	Selected Topics in Advertising and Brand Communication Practices	3 (2-2-5)
CDI 3270-74	Selected Topics in Digital Imagery Practices	3 (2-2-5)
DM 3270-74	Selected Topics in Digital Media Communication Practices	3 (2-2-5)
IG 3270-74	Selected Topics in Innovative Gamification and Content Management Practices	3 (2-2-5)
GDC 3270-74	Selected Topics in Graphic Design Practices	3 (2-2-5)
LV 3270-74	Selected Topics in Live Event Creation and Management Practices	3 (2-2-5)
PR 3270-74	Selected Topics in Image Management and Public Relations Practices	3 (2-2-5)

C. Free Elective Courses

6 Credits

Students can take free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any).

CDI 4213	Character and Props Design	3 (2-2-5)
CDI 4214	3D Sculpting	3 (2-2-5)
CDI 4215	Digital Texture and Material	3 (2-2-5)
CDI 4216	3D Character Animation	3 (2-2-5)
CDI 4217	Lip Sync and Facial Expressions	3 (2-2-5)
GDC 4110	History of Modern Art and Design	3 (3-0-6)
GDC 4111	Surface Pattern Design	3 (2-2-5)
GDC 4112	Paper Arts and Craft	3 (2-2-5)
GDC 4113	Printmaking	3 (2-2-5)
GDC 4114	Graphic Design for Startup	3 (2-2-5)

Study Plan**First Year****First Semester**

Course Code	Course Title	Credits
AAD 1001	Drawing and Painting	3 (2-2-5)
AAD 1002	Design Foundation	3 (2-2-5)
AAD 1004	3D Foundation	3 (2-2-5)
CA 1103	Introduction to Computer Graphic Design	3 (2-2-5)
ELE 1001	Communicative English I	3 (2-3-6)
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
Total 17 (12-11-30)		

Second Semester

Course Code	Course Title	Credits
AAD 1003	Visual Art Media	3 (2-2-5)
AAD 1005	Fundamental of Typography	3 (2-2-5)
AAD 1006	Digital Illustration	3 (2-2-5)
AAD 2008	Digital Photography	3 (2-2-5)
CA 1100	Introduction to Human Communication	3 (3-0-6)
ELE 1002	Communicative English II	3 (2-3-6)
Total 18 (13-11-32)		

Second Year**First Semester**

Course Code	Course Title	Credits
AAD 2007	Art History and Aesthetics	3 (3-0-6)
AAD 2009	Visual Language	3 (2-2-5)
BBA 1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
CDI 2202	Motion Graphics and Storytelling	3 (2-2-5)
CDI 3206	Sound Production	3 (2-2-5)
ELE 2000	Academic English	3 (2-3-6)
Total 17 (13-9-31)		

Second Semester

Course Code	Course Title	Credits
AAD 2010	Corporate Visual Identity	3 (2-2-5)
AAD 3012	Thai Art and Culture	3 (3-0-6)
BBA 1006	Essential of Economics for Entrepreneurs	2 (2-0-4)
CA 1104	Creative Production Management	3 (2-2-5)
CA 2120	Interactive and Digital Platform Design	3 (2-2-5)
ELE 2001	Advanced Academic English	3 (2-3-6)
Total 17 (13-9-31)		

Third Year**First Semester**

Course Code	Course Title	Credits
AAD 3011	Layout and Composition	3 (2-2-5)
AADm3013	Design Management and Creative Innovation	3 (2-2-5)
GE 1410	Thai for Professional Communication (for Thai students) OR	2 (2-0-4)
GE 1411	Thai Language for Multicultural Communication (for non-Thai students) OR	
GE 1412	Introductory Thai Usage (for Thai students from International Program)	

Digital Imagery: Major Concentration Courses

CDI 3203	Animation Foundation and Pre-production	3 (2-2-5)
CDI 3204	3D Modeling	3 (2-2-5)
CDI 3207	Concept Art and Visual Development Design	3 (2-2-5)

Graphic Design: Major Concentration Courses

GDC 3101	Packaging Design	3 (2-2-5)
GDC 3102	Digital Typeface Design	3 (2-2-5)

GDC 3103	Infographic Design	3 (2-2-5)
Total 17 (12-10-29)		
Second Semester		
Course Code	Course Title	Credits
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
CA2110	Media Literacy and Ethical Concerns	3 (3-0-6)
CA 3120	Entrepreneurial Principles and Practices for Communication Arts	3 (3-0-6)
Digital Imagery: Major Concentration Courses		
CDI 3205	Short Animation	3 (2-2-5)
CDI 3208	3D Animation and Movement Analysis	3 (2-2-5)
CDI 3209	Shading Lighting and Rendering for Games	3 (2-2-5)
Graphic Design: Major Concentration Courses		
GDC 3104	Digital Publication Design	3 (2-2-5)
GDC 3105	Brand Identity System	3 (2-2-5)
GDC 3106	Environmental Graphic & Exhibition Design	3 (2-2-5)
Total 18 (14-8-32)		
Summer Session		
Course Code	Course Title	Credits
AAD 3014	CCD Internship	1 (160 hours)
Total 1 (160 hours)		
Fourth Year		
First Semester		
Course Code	Course Title	Credits
AAD 4016	CCD Art Thesis I	3 (2-2-5)
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
GE 1303	Science for Sustainable Future	2 (2-0-4)
	Free Elective Course 1	3
Digital Imagery: Major Concentration Courses		
CDI 3210	Digital Compositing and Matte Painting	3 (2-2-5)
CDI 3211	Game Design	3 (2-2-5)
Graphic Design: Major Concentration Courses		
GDC 3107	User Interface and User Experiences Design	3 (2-2-5)
GDC 3108	Photograph Manipulation	3 (2-2-5)
Total 16 (10-6-23)		
Second Semester		
Course Code	Course Title	Credits
AAD 4017	CCD Art Thesis II	3 (2-2-5)
GE 2202	Ethics	3 (3-0-6)
	Free Elective Course 2	3
Digital Imagery: Major Concentration Courses		
CDI 4212	AR and VR Concept Design	3 (2-2-5)
Graphic Design: Major Concentration Courses		
GDC 4109	Applied Motion Graphic Design	3 (2-2-5)
Total 12 (7-4-16)		







MONTFORT DEL ROSARIO SCHOOL OF **ARCHITECTURE AND DESIGN**





BACHELOR OF ARCHITECTURE

PROGRAM IN ARCHITECTURE

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Architecture in Architecture and Interior Architecture upon students who meet all of the following requirements:

- Have completed of the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Have to meet the minimum English Proficiency requirement specified in one of the following criteria

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

Bachelor of Architecture Program

Curriculum Structure

(1) Architecture Program

Total number of credits	167	Credits
A. General Education Courses	30	Credits
Language Courses	14	Credits
Social Science Courses	9	Credits
Humanities Courses	2	Credits
Science and Mathematics Courses	5	Credits
B. Specialized Courses	134	Credits
Core Courses	44	Credits
Major Required Courses	57	Credits
Major Elective Courses	6	Credits
Minor Required Courses	24	Credits
C. Free Elective Courses	6	Credits

(2) Interior Architecture Program

Total number of credits	167	Credits
A. General Education Courses	30	Credits
Language Courses	14	Credits
Social Science Courses	9	Credits
Humanities Courses	2	Credits
Science and Mathematics Courses	5	Credits
B. Specialized Courses	131	Credits
Core Courses	44	Credits
Major Required Courses	57	Credits
Major Elective Courses	6	Credits
Minor Required Courses	24	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	30	Credits
Language Courses	14	Credits
ELE 1001	Communicative English I	3 (2-3-6)
ELE 1002	Communicative English II	3 (2-3-6)
ELE 2000	Academic English	3 (2-3-6)
ELE 2001	Advanced Academic English	3 (2-3-6)
GE 1410	Thai for Professional Communication OR	2 (2-0-4)
GE 1411	Thai Language for Multicultural Communication (for non-Thai students) OR	
GE 1412	Introductory Thai Usage (for Thai students From international programs)	
Social Science Courses	9	Credits
GE 2202	Ethics	3 (3-0-6)
BBA 1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
Humanities Courses	2	Credits
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
Science and Mathematics Courses	5	Credits
GE 1303	Science for Sustainable Future	2 (2-0-4)
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
B. Specialized Courses		
(1) Architecture Program	134	Credits
Core Courses	44	Credits
ADX 1101	Art and Design Appreciation	2 (2-0-4)
ADX 1102	Design Culture Exposure	3 (0-6-3)
ADX 1301	Design Visual	3 (2-2-5)
ADX 1302	Design Drawing	3 (2-2-5)

	ADX 1303	Design Communication	3 (2-2-5)
	ADX 1304	Design Fundamental	3 (2-2-5)
	ADX 1305	Advanced Drawing and Delineation	3 (2-2-5)
	AAI 1300	Construction Fundamental	3 (2-2-5)
	AAI 1301	Introduction to Computer-Aided Design	3 (2-2-5)
	AAI 2101	Design Method	3 (3-0-6)
	AAI 2102	History of Thai Architecture	3 (3-0-6)
	AAI 2301	Building Technology and Construction I	3 (2-2-5)
	AAI 2302	Building Equipment and Systems	3 (2-2-5)
	AAI 3300	Building Technology and Construction II	3 (2-2-5)
	AAI 4101	Methods of Research and Data Processing	3 (3-0-6)
Major Required Courses			57 Credits
	AAI 2200	Integrated Design I	6 (2-8-8)
	AAI 2201	Integrated Design II	6 (2-8-8)
	AAI 3100	Theory and Concept in Design	3 (3-0-6)
	AAI 3200	Architectural Design I	6 (2-8-8)
	AAI 3201	Architectural Design II	6 (2-8-8)
	AAI 3204	Experiential Design	6 (2-8-8)
	AAI 4200	Architectural Design III	6 (2-8-8)
	AAI 4201	Architectural Design IV	6 (2-8-8)
	AAI 5201	Pre-Thesis in Architecture	3 (0-6-3)
	AAI 5202	Thesis in Architecture	9 (0-18-9)
Major Elective Courses			6 Credits
Select courses according to concentration			
1. Concentration in Architectural Design			
	AAI 5400	Thai Architecture	3 (2-2-5)
	AAI 5401	Building Cost Estimation and Control	3 (3-0-6)
	AAI 5403	Fundamentals of Architecture and Urban Conservation	3 (3-0-6)
	AAI 5405	Individual Study in Architecture	3 (3-0-6)
	AAI 5409	Architectural Psychology	3 (3-0-6)
	AAI 5414	Energy Saving	3 (3-0-6)
	AAI 5415	Interactive Features Design	3 (2-2-5)
	AAI 5416	Façade Design in Architecture	3 (2-2-5)
	AAI 5417	Interior Design by Architects	3 (2-2-5)
	AAI 5418	Introduction to Exhibition Design	3 (2-2-5)
	AAI 5419	Special Topics in History, Theory and Technology in Architecture	3 (3-0-6)
	AAI 5420	Lighting, Perception and Culture	3 (3-0-6)
	AAI 5421	Landscape Architectural Design	3 (2-2-5)
	AAI 5422	Contemporary Theory and Concept in Architecture	3 (3-0-6)
	AAI 5423	Sustainable Building Design	3 (2-2-5)
	AAI 5424	Introduction to Design-Build	3 (2-2-5)
2. Concentration in Design Business			
	AAI 5401	Building Cost Estimation and Control	3 (3-0-6)
	AAI 5404	Construction Management	3 (1-4-4)
	AAI 5405	Individual Study in Architecture	3 (3-0-6)
	AAI 5407	Real Estate Development	3 (3-0-6)
	AAI 5413	Project Management	3 (3-0-6)
	AAI 5425	Project Feasibility Study	3 (3-0-6)
Minor Required Courses			24 Credits
	ADX 1300	Preparation for Architectural and Design Studies	Non-credit
	AAI 2100	History of Contemporary Architecture	2 (2-0-4)
	AAI 2303	Fundamental of Building Information Modeling Management	2 (1-2-4)
	AAI 3102	Seminar in Architecture	2 (2-0-4)
	AAI 3302	Structural Design Principle	2 (2-0-4)
	AAI 3301	Building Technology and Construction III	3 (2-2-5)
	AAI 3303	Fundamentals of Site and Landscape Planning	3 (2-2-5)
	AAI 4300	Building Technology and Construction IV	3 (2-2-5)

	AAI 4302	Architectural Programming	2 (2-0-4)
	AAI 4301	Fundamentals of Urban Planning and Design	2 (1-2-4)
	AAI 5200	Professional Ethics and Practices	3 (3-0-6)
	AAI 4204	Practicum in Architecture	Non-Credit (320 Hours)
(2) Interior Architecture Program			131 Credits
Core Courses			44 Credits
	ADX 1101	Art and Design Appreciation	2 (2-0-4)
	ADX 1102	Design Culture Exposure	3 (0-6-3)
	ADX 1301	Design Visual	3 (2-2-5)
	ADX 1302	Design Drawing	3 (2-2-5)
	ADX 1303	Design Communication	3 (2-2-5)
	ADX 1304	Design Fundamental	3 (2-2-5)
	ADX 1305	Advanced Drawing and Delineation	3 (2-2-5)
	AAI 1300	Construction Fundamental	3 (2-2-5)
	AAI 1301	Introduction to Computer-Aided Design	3 (2-2-5)
	AAI 2101	Design Method	3 (3-0-6)
	AAI 2102	History of Thai Architecture	3 (3-0-6)
	AAI 2300	Advanced Computer-Aided Design	3 (2-2-5)
	AAI 2301	Building Technology and Construction I	3 (2-2-5)
	AAI 2302	Building Equipment and Systems	3 (2-2-5)
	AAI 4100	Methods of Research and Data Processing	3 (3-0-6)
Major Required Courses			57 Credits
	AAI 2200	Integrated Design I	6 (2-8-8)
	AAI 2201	Integrated Design II	6 (2-8-8)
	AAI 3100	Theory and Concept in Design	3 (3-0-6)
	AAI 3202	Interior Architectural Design I	6 (2-8-8)
	AAI 3203	Interior Architectural Design II	6 (2-8-8)
	AAI 3204	Experiential Design	6 (2-8-8)
	AAI 4202	Interior Architectural Design III	6 (2-8-8)
	AAI 4203	Interior Architectural Design IV	6 (2-8-8)
	AAI 5203	Pre-Thesis in Interior Architecture.	3 (0-6-3)
	AAI 5204	Thesis in Interior Architecture	9 (0-18-9)
Major Elective Courses			6 Credits
	AAI 5402	Interior Architecture Cost Estimation and Control	3 (3-0-6)
	AAI 5406	Individual Study in Interior Architecture	3 (3-0-6)
	AAI 5408	Facility Management	3 (3-0-6)
	AAI 5410	Fabric Design and Applications	3 (2-2-5)
	AAI 5411	Elements of Thai Architecture	3 (2-2-5)
	AAI 5412	Aesthetic Appreciation	3 (3-0-6)
	AAI 5418	Introduction to Exhibition Design	3 (2-2-5)
	AAI 5426	Advanced Visualization Technique	3 (2-2-5)
	AAI 5427	Advanced Lighting	3 (2-2-5)
	AAI 5428	Advanced Construction Document for Interior Architecture	3 (2-2-5)
Minor Required Courses			24 Credits
	AAI 2304	Material Application in Interior Architecture	3 (2-2-5)
	AAI 2305	Furniture Design and Production	3 (2-2-5)
	AAI 3101	History of Interior Architecture	3 (3-0-6)
	AAI 3103	Interior Architectural Seminar	3 (3-0-6)
	AAI 3304	Basic Interior Construction Technology	3 (2-2-5)
	AAI 3305	Advanced Interior Construction Technology	3 (2-2-5)
	AAI 3306	Lighting Design for Interior Architecture	3 (2-2-5)
	AAI 4205	Practicum in Interior Architecture	Non-Credit (320 Hours)
	AAI 5200	Professional Ethics and Practices	3 (3-0-6)

C. Free Elective Courses

Students can take free elective courses from any faculty in Assumption University upon completion of the prerequisites (if any).

(1) Architecture Program	6 Credits
(2) Interior Architecture Program	6 Credits

Study Plan

(1) Architecture Program

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
GE 1410	Thai for Professional Communication	2 (2-0-4)
BBA 1004.	Essential Marketing for Entrepreneurs	2 (2-0-4)
GE 2110	Human Civilization and Global Citizens	2 (2-0-4)
ADX 1101	Art and Design Appreciation	2 (2-0-4)
ADX 1301	Design Visual	3 (2-2-5)
ADX 1302	Design Drawing	3 (2-2-5)
Total 17 (14-7-32)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
GE 1303	Science for Sustainable Future	2 (2-0-4)
GE 2202	Ethics	3 (3-0-6)
ADX 1102	Design Culture Exposure	3 (0-6-3)
ADX 1303	Design Communication	3 (2-2-5)
ADX 1304	Design Fundamental	3 (2-2-5)
ADX 1305	Advanced Drawing and Delineation	3 (2-2-5)
Total 20 (13-15-34)		

Summer Semester

Course Code	Course Title	Credits
AAI 1300	Construction Fundamental.	3 (2-2-5)
AAI 1301	Introduction to Computer-Aided Design	3 (2-2-5)
Total 6 (4-4 -10)		

Second Year

First Semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
AAI 2200	Integrated Design I	6 (2-8-8)
AAI 2301	Building Technology and Construction I	3 (2-2-5)
AAI 2100	History of Contemporary Architecture	2 (2-0-4)
AAI 3302	Structural Design Principles	2 (2-0-4)
Total 16 (10- 13-28)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
AAI 2201	Integrated Design II	6 (2-8-8)
AAI 2302	Building Equipment and Systems	3 (2-2-5)
AAI 2101	Design Method	3 (3-0-6)
AAI 2102	History of Thai Architecture	3 (3-0-6)
Total 20 (14-13-35)		

Summer Semester

Course Code	Course Title	Credits
AAI 2303	Fundamental of Building Information Modeling Management	2 (1-2-4)
Total 2 (1-2-4)		

Third Year**First Semester**

Course Code	Course Title	Credits
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
AAI 3100	Theory and Concept in Design	3 (3-0-6)
AAI 3200	Architectural Design I	6 (2-8-8)
AAI 3300	Building Technology and Construction II	3 (2-2-5)
	Free Elective Course I	3 (---)
Total 18 (9-12-24)		

Second Semester

Course Code	Course Title	Credits
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
AAI 4100	Methods of Research and Data Processing	3 (3-0-6)
AAI 3201	Architectural Design II	6 (2-8-8)
AAI 3301	Building Technology and Construction III	3 (2-2-5)
AAI 3303	Fundamentals of Site and Landscape Planning	3 (2-2-5)
Total 17 (11-12-28)		

Summer Semester

Course Code	Course Title	Credits
AAI 3204	Experiential Architectural Design	6 (2-8-8)
Total 6 (2-8-8)		

Fourth Year**First Semester**

Course Code	Course Title	Credits
AAI 4200	Architectural Design III	6 (2-8-8)
AAI 5200	Professional Ethics and Practices	3 (3-0-6)
AAI 4300	Building Technology and Construction IV	3 (2-2-5)
AAI 4301	Fundamentals of Urban Planning and Design	2 (1-2-4)
AAI 4302	Architectural Programming	2 (2-0-4)
	Free Elective Course II	3 (---)
Total 19 (10-12-27)		

Second Semester

Course Code	Course Title	Credits
AAI 4201	Architectural Design IV	6 (2-8-8)
AAI 5201	Pre-Thesis in Architecture	3 (0-6-3)
AAI 3102	Seminar in Architecture	2 (2-0-4)
	Major Elective I	3 (---)
	Major Elective II	3 (---)
Total 17 (4-14-16)		

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Summer Semester

Course Code	Course Title	Credits
AAI 4204	Practicum in Architecture	Non-Credit (320 Hours)
Total ---)		-

Fifth Year**First Semester**

Course Code	Course Title	Credits
AAI 5202	Thesis in Architecture	9 (0-18-9)
Total 9 (0-18-9)		

Second Semester

Course Code	Course Title	Credits
	Free Elective Course	-(---)
	Major Elective Course	-(---)
Total ---)		

(2) Interior Architecture Program**First Year****First Semester**

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
GE 1410	Thai for Professional Communication	2 (2-0-4)
BBA 1004.	Essential Marketing for Entrepreneurs	2 (2-0-4)
GE 2110	Human Civilization and Global Citizens	2 (2-0-4)
ADX 1101	Art and Design Appreciation	2 (2-0-4)
ADX 1301	Design Visual	3 (2-2-5)
ADX 1302	Design Drawing	3 (2-2-5)
Total 17 (14-7-32)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
GE 1303	Science for Sustainable Future	2 (2-0-4)
GE 2202	Ethics	3 (3-0-6)
ADX 1102	Design Culture Exposure	3 (0-6-3)
ADX 1303	Design Communication	3 (2-2-5)
ADX 1304	Design Fundamental	3 (2-2-5)
ADX 1305	Advanced Drawing and Delineation	3 (2-2-5)
Total 20 (13-15-34)		

Summer Semester

Course Code	Course Title	Credits
AAI 1300	Construction Fundamental.	3 (2-2-5)
AAI 1301	Introduction to Computer-Aided Design	3 (2-2-5)
Total 6 (4-4 -10)		

Second Year**First Semester**

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
AAI 2200	Integrated Design I	6 (2-8-8)
AAI 2300	Advanced Computer-Aided Design	3 (2-2-5)
AAI 2301	Building Technology and Construction I	3 (2-2-5)
	Free Elective Course I	3 (---)
Total 17 (8-15-24)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
AAI 2201	Integrated Design II	6 (2-8-8)
AAI 2302	Building Equipment and Systems	3 (2-2-5)
AAI 2101	Design Method	3 (3-0-6)
AAI 2102	History of Thai Architecture	3 (3-0-6)
Total 20 (14-13-35)		

Summer Semester

Course Code	Course Title	Credits
AAI 2304	Material Application in Interior Architecture	3 (2-2-5)
AAI 2305	Furniture Design and Production	3 (2-2-5)
Total 6 (4-4 -10)		

Third Year**First Semester**

Course Code	Course Title	Credits
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
AAI 3100	Theory and Concept in Design	3 (3-0-6)
AAI 3202	Interior Architectural Design I	6 (2-8-8)
AAI 3304	Basic Interior Construction Technology	3 (2-2-5)
AAI 3306	Lighting Design for Interior Architecture	3 (2-2-5)
Total 18 (11-14-29)		

Second Semester

Course Code	Course Title	Credits
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
AAI 4100	Method of Research and Data Processing	3 (3-0-6)
AAI 3203	Interior Architectural Design II	6 (2-8-8)
AAI 3305	Advanced Interior Construction Technology	3 (2-2-5)
AAI 3101	History of Interior Architecture	3 (3-0-6)
Total 17 (12-10-29)		

Summer Semester

Course Code	Course Title	Credits
AAI 3204	Experiential Interior Design	6 (2-8-8)
Total 6 (2-2-5)		

Fourth Year**First Semester**

Course Code	Course Title	Credits
AAI 4202	Interior Architectural Design III	6 (2-8-8)
AAI 5200	Professional Ethics and Practices	3 (3-0-6)
AAI 3103	Interior Architectural Seminar	3 (3-0-6)
	Free Elective Course II	3 (---)
Total 15 (8-8-20)		

Second Semester

Course Code	Course Title	Credits
AAI 4203	Interior Architectural Design IV	6 (2-8-8)
AAI 5203	Pre-Thesis in Interior Architecture	3 (0-6-3)
	Major Elective I	3 (- --)
	Major Elective II	3 (- --)
Total 15 (2-14-11)		

Summer Semester

Course Code	Course Title	Credits
AAI 4205	Practicum in Interior Architecture	Non-Credit (320 Hours)
Total -(---)		

Fifth Year**First Semester**

Course Code	Course Title	Credits
AAI 5204	Thesis in Interior Architecture	9 (0-18-9)
Total 9 (0 -18- 9)		

Second Semester

Course Code	Course Title	Credits
	Free Elective Course	-(---)
	Major Elective Course	-(---)
Total -(- --)		



BACHELOR OF FINE AND APPLIED ARTS

PROGRAM IN INTERIOR DESIGN

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Fine and Arts in Product Design upon students who meet all of the following requirements specified in the Graduate Program Standard Criteria B.E. 2548 and Assumption University Bylaw B.E. 2548 as follows:

- Have completed the total number of credits of the curriculum.
- Have obtained a cumulative grade point average of at least 2.00.
- Have participated in 16 sessions of the Professional Ethics Seminar.
- Have obtained library and financial clearance with the University.
- Have demonstrated good behavior and discipline.

OBJECTIVES

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Possess personal, professional, and environmental ethics accepted and approved by the society.
2. Possess product design knowledge, technical skills, entrepreneurial and enterprising skills, and professional responsibility sufficient to assume leadership positions in the industry, society and the country.
3. Confident in rendering product design services achieved through design thinking, problem solving, numerical analysis, and appropriate psychomotor skills in the milieu of science and technology while adhering to preservation of arts and culture.
4. Possess the 21st century skills, which includes social skills, communication skills, and digital literacy skills within collaborative environments

Bachelor of Fine and Applied Arts Program in Interior Design

Curriculum Structure

Total number of credits	125	Credits
A. General Education Courses	24	Credits
Language Courses	12	Credits
Social Science Courses/Humanities Courses/ Science and Mathematics Course	12	Credits
B. Specialized Courses	95	Credits
Foundation Courses	27	Credits
Technology Courses	15	Credits
Supporting Courses	14	Credits
Major Courses	33	Credits
Major Elective Courses	6	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses.	24	Credits
Language Courses	12	Credits
ELE 1001 Communicative English I	3	(2-3-6)
ELE 1002 Communicative English II	3	(2-3-6)
ELE 2000 Academic English	3	(2-3-6)
ELE 2001 Advanced Academic English	3	(2-3-6)
GE 1403 Thai Language for Professional Communication	3	(3-0-6)
GE 1409 Thai Language for Intercultural Communication	3	(3-0-6)
GE 3401 Public Speaking in Thai	3	(3-0-6)
GE 1413 Introduction to Korean Language and K-pop Culture	3	(3-0-6)
GE 1414 Introduction to Spanish Language and Culture	3	(3-0-6)
GE 1415 Storytelling and Presentation Skills in English	3	(3-0-6)
Humanities Courses		
ADX 1102 Design Culture Exposure	2	(0-4-4)
ADX 1140 Journey of Urban Art and Culture Exploration	3	(3-0-6)
FT 2003A Foods Changing the World (Part A)	2	(2-0-4)
FT 2003B Foods Changing the World (Part B)	1	(1-0-2)
GE 1104 Thai Historical Perspectives	3	(3-0-6)
GE 1107 Perspectives in Politics and Economy	3	(3-0-6)
GE 2102 Human Heritage and Globalization	3	(3-0-6)
GE 2103 Art of Reasoning	3	(3-0-6)
GE 2110 Human Civilizations and Global Citizens.	2	(2-0-4)
MU 1002 Pop Music Appreciation	3	(3-0-6)
MU 1231 History and Literature of Music	3	(3-0-6)
MU 3602 Music Therapy	3	(3-0-6)
MU 4223 Music in Human Life	3	(3-0-6)
Social Science Courses		
AD 3280 Inspiration, Lifestyles and Popular Culture	3	(2-2-5)
ADX 1101 Art and Design Appreciation	3	(3-0-6)
ADX 1240 Artist Studio (Painting and Rendering)	3	(2-2-5)
ADX 1303 Design Communication	3	(2-2-5)
ADX 1304 Design Fundamental	3	(2-2-5)
ADX 1307 Design Illustration and Presentation	3	(2-2-5)
BBA 1012 Entrepreneurial Marketing	3	(3-0-6)
BBA 1020 Design Thinking Essentials	2	(2-0-4)
BBA 1021 Design Thinking Workshop	1	(1-0-2)
BBA 1022 Building CEO and Leadership Essentials	2	(2-0-4)
BBA 1023 Building CEO and Leadership Workshop	1	(1-0-2)
BBA 1024 Entrepreneurial Marketing Essentials	2	(2-0-4)
BBA 1025 Entrepreneurial Marketing Workshop	1	(1-0-2)
CA 1102 Introduction to Creative Communication	3	(3-0-6)

CA 1110	Art and Beauty of Living	3 (3-0-6)
EG 1001	Digital Literacy	3 (3-0-6)
FT 1003	Food Factory Explore Trip (Special Course)	3 (3-0-6)
FT 2004	Drinkology: The Art of Drinking	3 (3-0-6)
FT 2005	Food Zodiac	3 (3-0-6)
GE 1204	Physical Education	1 (0-2-1)
GE 1205	ASEAN Ways	3 (3-0-6)
GE 1209	Psychology Application in Daily Life	3 (3-0-6)
GE 2202	Ethics	3 (3-0-6)
GE 2207	Sport, Health, and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 4502	Tech Start Up	3 (3-0-6)
LLB 1501	Business Law	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business	3 (3-0-6)
LLB 4806	Business and Human Rights	3 (3-0-6)
MB 2531	Music Business	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior	3 (3-0-6)
Science and Mathematics Courses		
BBA 1013	Entrepreneurial Finance	3 (3-0-6)
BBA 1014	The Art of Data for Business	3 (3-0-6)
BBA 1026	Entrepreneurial Finance for Essentials	2 (2-0-4)
BBA 1027	Entrepreneurial Finance Workshop	1 (1-0-2)
BBA 1028	The Art of Data Essentials	2 (2-1-4)
BBA 1029	The Art of Data Workshop	1 (0-1-1)
CA 1201	Creative Photography	3 (2-2-5)
CA 1202	Computer Graphic for Presentation	3 (2-2-5)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
EG 1002	Application Design for Everyone Literacy	3 (3-0-6)
EG 1003	Introduction to Internet of Things (IoTs) Literacy	3 (3-0-6)
EG 1004	Artificial Intelligence for Beginners	3 (3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3 (3-0-6)
FT 1004A	Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
FT 1005	Sustainability and Circular Living	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)

B. Specialized Courses

95 Credits

Core Courses

Foundation Courses

27 Credits

ADX 1140	Journey of Urban Art and Culture Exploration	3 (3-0-6)
ADX 1240	Artist Studio (Painting and Rendering)	3 (2-2-5)
ADX 1301	Visual Design	3 (2-2-5)
ADX 1306	Delineation	3 (2-2-5)
IAD 1111	Technical Drawing	3 (2-2-5)
IAD 1112	Design Fundamentals	3 (2-2-5)
IAD 2111	Interior Design Theory and Practice	3 (2-2-5)
IAD 2112	Human Factors for Interior Design	3 (3-0-6)
IAD 2211	History of Western Architecture and Design	3 (3-0-6)

Technology Courses

15 Credits

IAD 1221	Basic Building Construction	3 (2-2-5)

	IAD 2121	Interior Material and Applications	3 (2-2-5)
	IAD 2221	Building Systems Study	3 (3-0-6)
	IAD 2222	Lighting Design	3 (2-2-5)
	IAD 3121	Interior Construction & Technical Drawing	3 (2-2-5)
Supporting Courses			14 Credits
	IAD 1231	Computer-Aided Design	3 (2-2-5)
	IAD 1331	Fundamental of Interior Brand Design	3 (3-0-6)
	IAD 3234	Professional Ethics and Management for Interior Design	3 (3-0-6)
	IAD 3232	Recreation Design for Personal Development	3 (0-6-3)
	IAD 3233	Design Research and Marketing study	3 (3-0-6)
	IAD 3331	Internship for Interior Design	2 (200 Hrs.)
Major Required Courses			33 Credits
	IAD 1241	Interior Design I	3 (2-2-5)
	IAD 1242	Interior Design II	3 (2-2-5)
	IAD 1341	Interior Design III	3 (2-2-5)
	IAD 2141	Interior Design IV	3 (2-2-5)
	IAD 2142	Interior Design V	3 (2-2-5)
	IAD 2241	Interior Design VI	3 (2-2-5)
	IAD 2242	Interior Design VII	3 (2-2-5)
	IAD 2341	Advance Interior Architecture Design I	6 (2-8-8)
	IAD 3141	Advance Interior Architecture Design II	6 (2-8-8)
Major Elective Courses			6 Credits
Students can take major elective courses of 6 credits from subject as list:			
	IAD 4150	House Design by Interior Designer	3 (2-2-5)
	IAD 4151	Senior Project in Interior Design	6 (0-10-8)
	IAD 4152	Artist Studio (Sculpture)	3 (1-4-4)
	IAD 4153	Artist Studio (Paper Technique)	3 (2-2-5)
	IAD 4154	Artist Studio (Flower Arrangement)	3 (2-2-5)
	IAD 4155	Digital Scenes Design Studio	3 (2-2-5)
	IAD 4156	Advanced Lighting Design	3 (2-2-5)
	IAD 4158	Advanced Computer-Aided Design	3 (2-2-5)
	IAD 4159	Decorative Art	3 (2-2-5)
	IAD 4160	Interaction Design	3 (2-25)
	IAD 4161	Furniture Design and Production	3 (2-2-5)

C. Free Elective Courses

6 Credits

Students can take free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any).

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English	3 (2-3-6)
ADX 1140	Journey of Urban Art and Culture Exploration	3 (3-0-6)
ADX 1301	Visual Design	3 (2-2-5)
ADX 1309	Delineation	3 (2-2-5)
IAD 1111	Technical Drawing	3 (2-2-5)
IAD 1112	Design Fundamentals	3 (2-2-5)
Total		18 (13-11-32)

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
ADX 1307	Design Illustration and Presentation	3 (2-2-5)
IAD 1221	Basic Building Construction	3 (2-2-5)
IAD 1231	Computer-Aided Design	3 (2-2-5)
IAD 1241	Interior Design I	3 (2-2-5)

	IAD 1242	Interior Design II	3 (2-2-5)
		Total 18 (12-13-36)	
Summer Semester			
	Course Code	Course Title	Credits
	IAD 1331	Fundamental of Interior Brand Design	3 (2-2-5)
	IAD 1341	Interior Design III	3 (2-2-5)
		Total 6 (4-4-10)	
Second Year			
First Semester			
	Course Code	Course Title	Credits
	ELE 2000	Academic English	3 (2-3-6)
	IAD 2111	Interior Design Theory and Practice	3 (2-2-5)
	IAD 2112	Human Factors for Interior Design	3 (3-0-6)
	IAD 2121	Interior Material and Applications	3 (2-2-5)
	IAD 2141	Interior Design IV	3 (2-2-5)
	IAD 2142	Interior Design V	3 (2-2-5)
		Total 18 (13-11-32)	
Second Semester			
	Course Code	Course Title	Credits
	ELE 2001	Advance Academic English	3 (2-3-6)
	GE 2202	Ethics	3 (3-0-6)
	IAD 2211	History of Interior Architecture Design	3 (3-0-6)
	IAD 2221	Building System Study	3 (3-0-6)
	IAD 2222	Lighting Design	3 (2-2-5)
	IAD 2241	Interior Design VI	3 (2-2-5)
	IAD 2242	Interior Design VII	3 (2-2-5)
		Total 21 (17-9-39)	
Summer Semester			
	Course Code	Course Title	Credits
	IAD 2341	Advances Interior Architecture Design I	6 (2-8-8)
		Total 6 (2-8-8)	
Third Year			
First Semester			
	Course Code	Course Title	Credits
	GE xxxx	-----	3 (---)
	GE xxxx	-----	3 (---)
	IAD 3121	Interior Construction & Technical Drawing	3 (2-2-5)
	IAD 3141	Advances Interior Architecture Design II	6 (2-8-8)
	XX xxxx	Major Elective	3 (---)
	XX xxxx	Free Elective	3 (---)
		Total 21 (---)	
Second Semester			
	Course Code	Course Title	Credits
	GE xxxx	-----	3 (---)
	IAD 3232	Recreation Design for Personal Development	3 (0-6-3)
	IAD 3234	Professional Ethics and Management for Interior Design	3 (3-0-6)
	XX xxxx	Major Elective	3 (---)
	XX xxxx	Free Elective	3 (---)
		Total 15 (- - -)	
Summer Semester			
	Course Code	Course Title	Credits
	IAD 3331	Internship for Interior Design	2 (200 Hrs.)
		Total 2 (200 Hrs.)	



BACHELOR OF DESIGN

PROGRAM IN ART AND DESIGN

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Fine and Arts in Multidisciplinary Design upon students who meet all of the following requirements specified in the Graduate Program Standard Criteria B.E. 2548 and Assumption University Bylaw B.E. 2548 as follows:

- Have completed the total number of credits of the curriculum.
- Have obtained a cumulative grade point average of at least 2.00.
- Have participated in 16 sessions of the Professional Ethics Seminar.
- Have obtained library and financial clearance with the University.
- Have demonstrated good behavior and discipline.

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Possess personal, professional, and environmental ethics accepted and approved by the society.
2. Possess product design knowledge, technical skills, entrepreneurial and enterprising skills, and professional responsibility sufficient to assume leadership positions in the industry, society and the country.
3. Confident in rendering product design services achieved through design thinking, problem solving, numerical analysis, and appropriate psychomotor skills in the milieu of science and technology while adhering to preservation of arts and culture.
4. Possess the 21st century skills, which includes social skills, communication skills, and digital literacy skills within collaborative environments

Bachelor of Fine and Applied Arts Program in Art and Design

Curriculum Structure

Total number of credits	120	Credits
A. General Education Courses	24	Credits
General Education required Courses	15	Credits
General Education Elective Courses	9	Credits
B. Specialized Courses	90	Credits
Core Courses	9	Credits
Professional Courses	24	Credits
Supported Courses	12	Credits
Major Courses	45	Credits
(For Art and Creative Business)		
- Compulsory Major Courses	18	Credits
- Major Concentration Courses	27	Credits
(For Product Design)		
- Compulsory Major Courses	30	Credits
- Major Concentration Courses	15	Credits
C. Free Elective Courses	6	Credits

Courses

Major Course Selection

Students may declare their major based on their interests during the first semester of the second year. The requirements and details for majors, minors, and certificate programs are designed with flexibility, enabling students to register for courses that align with their individual academic and professional goals, as outlined below

Major Courses

- (1) Major in Art and Creative Entrepreneur Courses 45 Credits

This major offer flexibility by allowing students to register compulsory courses 18 credits and selection of up to 27 credits (equivalent to 9 major concentration courses), in addition to the compulsory major required courses. Students can choose from a diverse range of design-related courses from listed below, including the possibility of transferring credits earned from other accredited institutions. This feature facilitates a seamless transition for to transfer credits, thereby optimizing their educational investment.

Compulsory Major		18	Credits
PDS 2321	Collaborative Product Design Studio I	3	(2-2-5)
PDS 3312	Collaborative Product Design Studio II	6	(2-8-8)
PDS 3323	Collaborative Product Design Studio III	6	(2-8-8)
MDD 3406	Design Coordination and Project Management	3	(2-2-5)
Concentration Major	9 Concentration courses from below list:	27	Credits
MDD 2502	Cultural Intellect Management for Creative Industry Business	3	(3-0-6)
MDD 2503	Art in Community and Public	3	(3-0-6)
MDD 2504	Digital Culture and Innovation Creativity	3	(2-2-5)
MDD 2505	Art Psychology	3	(3-0-6)
MDD 3404	Exhibition Design	3	(2-2-5)
MDD 3401	Artist Studio : Jewelry Art and Design	3	(2-2-5)
MDD 3405	Artist Studio: Decorative Art	3	(2-2-5)
MDD 3407	Seminar in Art and Design	3	(3-0-6)
MDD 3451	Artist Studio: Drawing	3	(2-2-5)
MDD 3452	Artist Studio: Sculpture Art	3	(2-2-5)
MDD 3453	Artist Studio: Flower Arrangement	3	(2-2-5)
MDD 3412	Product Design Studio: Brand CI Design	3	(2-2-5)
MDD 3413	Product Design Studio: Graphic and Packaging Design	3	(2-2-5)
MDD 3421	Product Design Studio: Small-Medium Object Design	3	(2-2-5)
MDD 3422	Product Design Studio: User Interface Design	3	(2-2-5)

MDD 3423	Product Design Studio: Furniture Design	3 (2-2-5)
MDD 3424	Product Design Studio: Fashion and Textile Design	3 (2-2-5)
MDD 3402	Basic Lighting and Luminaire Design	3 (2-2-5)
MDD 3403	Smart Living and Wellness Study	3 (2-2-5)
MDD 3407	Seminar in Art and Design	3 (3-0-6)
MDD 3441	Upcycling Fashion and Accessories	3 (2-2-5)
MDD 3442	Fashion Merchandising	3 (2-2-5)
MDD 3443	Fashion Communication and Styling	3 (2-2-5)
MDD 3444	Pattern Making and Fashion Sewing Technique	3 (2-2-5)
MDD 3430	Interactive and Digital Arts	3 (2-2-5)
MDD 3431	Computer Programming for Interactive Design	3 (2-2-5)
MDD 3432	Interaction Design	3 (2-2-5)
EG 1002	Introduction to Internet of Things (IoTs) Literacy	3 (3-0-6)
EG 1002	Application Design for Everyone Literacy	3 (3-0-6)
ITX 2004	UX/UI Design and Prototyping	3 (3-0-6)

(2) Major in Product Design Courses

45 Credits

This major offer flexibility by allowing students to register compulsory courses 30 credits and selection of up to 15 credits (equivalent to 5 major concentration courses), in addition to the compulsory major required courses. Students can choose from a diverse range of design-related courses from listed below, including the possibility of transferring credits earned from other accredited institutions. This feature facilitates a seamless transition for to transfer credits, thereby optimizing their educational investment.

Compulsory Major

30 Credits

PDS 2321	Collaborative Design Studio I	3 (2-2-5)
PDS 3312	Collaborative Design Studio II	6 (2-8-8)
PDS 3323	Collaborative Design Studio III	6 (2-8-8)

5 courses (15 credits) from below list:

MDD 3412	Product Design Studio: Brand CI Design	3 (2-2-5)
MDD 3413	Product Design Studio: Graphic and Packaging Design	3 (2-2-5)
MDD 3421	Product Design Studio: Small-Medium Object Design	3 (2-2-5)
MDD 3422	Product Design Studio: User Interface Design	3 (2-2-5)
MDD 3423	Product Design Studio: Furniture Design	3 (2-2-5)
MDD 3424	Product Design Studio: Fashion and Textile Design	3 (2-2-5)

Concentration Major 5 Concentration courses (15 credits) from below list: 15 Credits

MDD 2505	Art Psychology	3 (3-0-6)
MDD 3412	Product Design Studio: Brand CI Design	3 (2-2-5)
MDD 3413	Product Design Studio: Graphic and Packaging Design	3 (2-2-5)
MDD 3421	Product Design Studio: Small-Medium Object Design	3 (2-2-5)
MDD 3422	Product Design Studio: User Interface Design	3 (2-2-5)
MDD 3423	Product Design Studio: Furniture Design	3 (2-2-5)
MDD 3424	Product Design Studio: Fashion and Textile Design	3 (2-2-5)

Lighting and Luminaire Design

MDD 3402	Basic Lighting and Luminaire Design	3 (2-2-5)
MDD 3403	Smart Living and Wellness Study	3 (2-2-5)
MDD 3404	Exhibition Design	3 (2-2-5)
MDD 3406	Design Coordination and Project Management	3 (2-2-5)
MDD 3407	Seminar in Art and Design	3 (3-0-6)
MDD 3441	Upcycling Fashion and Accessories	3 (2-2-5)
MDD 3442	Fashion Merchandising	3 (2-2-5)
MDD 3443	Fashion Communication and Styling	3 (2-2-5)
MDD 3444	Pattern Making and Fashion Sewing Technique	3 (2-2-5)
MDD 3430	Interactive and Digital Arts	3 (2-2-5)
MDD 3431	Computer Programming for Interactive Design	3 (2-2-5)
MDD 3432	Interaction Design	3 (2-2-5)

EG 1002	Application Design for Everyone Literacy	3 (3-0-6)
EG 1003	Introduction to Internet of Things (IoTs) Literacy	3 (3-0-6)
ITX 2004	UX/UI Design and Prototyping	3 (3-0-6)

Minor Course

This minor offer flexibility by allowing students to select up to 15 credits pertaining to individual interest (equivalent to 5 courses), in addition to the compulsory major required courses. Students can choose from a diverse range of design-related courses from listed below, including the possibility of transferring credits earned from other accredited institutions. This feature facilitates a seamless transition for to transfer credits, thereby optimizing their educational investment.

Minor in Fashion Design 5 courses (15 credits) from below list:

MDD 3401	Artist Studio: Jewelry Art and Design	3 (2-2-5)
MDD 3441	Upcycling Fashion and Accessories	3 (2-2-5)
MDD 3442	Fashion Merchandising	3 (2-2-5)
MDD 3443	Fashion Communication and Styling	3 (2-2-5)
MDD 3444	Pattern Making and Fashion Sewing Technique	3 (2-2-5)

Minor in Business Entrepreneurial 5 courses (15 credits) from below list:

BSB 1101	Design Thinking in Business	3 (3-0-6)
BSB 1107	Data Analytics and Visualization	3 (3-0-6)
BSB 1108	Marketing in Practice	3 (3-0-6)
BSB 2101	Consumer Behaviors and Insights	3 (3-0-6)
BSB 1102	Thinking as an Economist	3 (3-0-6)
BSB 1104	Quantitative Techniques in Business	3 (3-0-6)
BSB 1109	Navigating Global Business Environment	3 (3-0-6)
BSB 1111	Accounting for Professionals	3 (3-0-6)
BSB 2102	Management in Dynamic Contexts	3 (3-0-6)
BSB 2302	Essential Strategies for Sustainable Business	3 (3-0-6)
BSB 3101	Sustainable Entrepreneurship	3 (3-0-6)

Certificate Courses

This Certificate program offer flexibility by allowing students to select up to 9 credits pertaining to individual interest (equivalent to 3 courses), in addition to the compulsory major required courses. Students can choose from a diverse range of design-related courses from listed below, including the possibility of transferring credits earned from other accredited institutions. This feature facilitates a seamless transition for to transfer credits, thereby optimizing their educational investment.

Certificate in Interactive Design

MDD 3430	Interactive and Digital Arts	3 (2-2-5)
MDD 3431	Computer Programming for Interactive Design	3 (2-2-5)
MDD 3432	Interaction Design	3 (2-2-5)

Certificate in User interface Design

EG 1003	Introduction to Internet of Things (IoTs) Literacy	3 (3-0-6)
EG 1002	Application Design for Everyone Literacy	3 (3-0-6)
ITX 2004	UX/UI Design and Prototyping	3 (3-0-6)

Study Plan

For Art and Creative Entrepreneur

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
ADX 1140	Journey for Urban Art and Culture Exploration	3 (3-0-6)
MDD 1501	Creative Art and Design Practice	3 (2-2-5)
PDS 1111	History of Art and Design	3 (3-0-6)
PDS 1211	Design Method	3 (2-2-5)
PDS 1212	Digital Design and Fabrication Technique	3 (2-2-5)
Total 18 (14-9-33)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)

BSB 1101	Design Thinking in Business	3 (3-0-6)
PDS 1122	User Factors and User Behavior Study	3 (2-2-5)
MDD xxxx	Concentration Course I	3 (2-2-5)
MDD xxxx	Concentration Course II	3 (2-2-5)
MDD xxxx	Concentration Course III	3 (2-2-5)
Total 18 (14-9-33)		

Second Year First Semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
BSB 1107	Data Analytics and Visualization	3 (3-0-6)
PDS 2215	Theory and Trend in Design	3 (2-2-5)
MDD 2501	Contemporary Design and Cultural Administration	3 (3-0-6)
MDD xxxx	Concentration Course IV	3 (---)
MDD xxxx	Concentration Course V	3 (---)
Total 18 (---)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
BSB 1108	Marketing in Practice	3 (3-0-6)
PDS 2321	Collaborative Design I	3 (2-2-5)
MDD 1502	Aesthetics	3 (3-0-6)
MDD 2502	Cultural Intellect Management for Creative Industry Business	3 (3-0-6)
MDD 3406	Design Coordination and Project Management	3 (2-2-5)
Total 18 (15-7-34)		

Third Year First Semester

Course Code	Course Title	Credits
BSB 2101	Consumer Behaviors and Insights	3 (3-0-6)
GE 2202	Ethics	3 (3-0-6)
PDS 2321	Collaborative Design II	6 (2-8-8)
XX xxxx	Concentration Course VI	3 (---)
XX xxxx	Concentration Course VII	3 (---)
Total 18 (---)		

Second Semester

Course Code	Course Title	Credits
PDS 3323	Collaborative Design III	6 (2-8-8)
PDS 3228	Professional Ethics for Design Entrepreneur	3 (3-0-6)
XX xxxx	Concentration Course VIII	3 (2-2-5)
XX xxxx	General Education Course I	3 (---)
XX xxxx	General Education Course II	3 (---)
Total 18 (---)		

Summer Semester

Course Code	Course Title	Credits
PDS 3239	Professional Practice in Design	0 (0-4 -2)
Total 0 (0-4-2)		

Fourth Year First Semester

Course Code	Course Title	Credits
XX xxxx	Concentration Course IX	3 (---)
XX xxxx	General Education Course III	3 (---)
Total 6 (---)		

Second Semester

Course Code	Course Title	Credits
XX xxxx	Free Elective Course I	3 (---)
XX xxxx	Free Elective Course II	3 (---)
Total 6 (---)		

For Product Design**First Year****First Semester**

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
ADX 1301	Visual Design	3 (2-2-5)
PDS 1111	History of Art and Design	3 (3-0-6)
PDS 1211	Design Method	3 (2-2-5)
PDS 1212	Digital Design and Fabrication Technique	3 (2-2-5)
PDS 1213	Model Making Technique	3 (2-2-5)
Total 18 (13-11-32)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BSB 1101	Design Thinking in Business	3 (3-0-6)
PDS 1122	User Factors and User Behavior Study	3 (2-2-5)
PDS 1224	Mechanical Engineering for Product Design	3 (2-2-5)
MDD 3412	Product Design Studio: Brand CI Design	3 (2-2-5)
MDD 3413	Product Design Studio: Graphic and Packaging Design	3 (2-2-5)
Total 18 (13 -11 - 32)		

Second Year**First Semester**

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
BSB 1107	Data Analytics and Visualization	3 (3-0-6)
PDS 2215	Theory and Trend in Design	3 (2-2-5)
PDS 2216	Art and Science of Material Exploration	3 (2-2-5)
MDD 3421	Product Design Studio: Small-Medium Object Design	3 (2-2-5)
MDD 3424	Product Design Studio: Fashion and Textile Design	3 (2-2-5)
Total 18 (13 -11- 32)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
BSB 1108	Marketing in Practice	3 (3-0-6)
PDS 2321	Collaborative Design I	3 (2-2-5)
MDD 3422	Product Design Studio: User interface Design OR	3 (2-2-5)
MDD 3423	Product Design Studio: Furniture Design	3 (2-2-5)
XX xxxx	Concentration Course I	3 (2-2-5)
Total 18 (13-11-32)		

Third Year**First Semester**

Course Code	Course Title	Credits
BSB 2101	Consumer Behaviors and Insights	3 (3-0-6)
GE 2202	Ethics	3 (3-0-6)
PDS 2321	Collaborative Design II	6 (2-8-8)
PDS 3312	Production and Manufacturing Processes Studies	3 (2-2-5)
XX xxxx	Concentration Course II	3 (2-2-5)

Total 18 (12-12-30)		
Second Semester		
Course Code	Course Title	Credits
PDS 3323	Collaborative Design III	6 (2-8-8)
PDS 3228	Professional Ethics for Design Entrepreneur	3 (3-0-6)
XX xxxx	Concentration Course III	3 (2-2-5)
XX xxxx	General Education Course I	3 (---)
XX xxxx	General Education Course II	3 (---)
Total 18 (---)		
Summer Semester		
Course Code	Course Title	Credits
PDS 3239	Professional Practice in Design	0 (0-4 -2)
Total 0 (0-4-2)		
Fourth Year		
First Semester		
Course Code	Course Title	Credits
XXxxxx	Concentration Course IV	3 (---)
XX xxxx	General Education Course III	3 (---)
Total 6 (---)		
Second Semester		
Course Code	Course Title	Credits
XX xxxx	Free Elective Course I	3 (---)
XX xxxx	Free Elective Course II	3 (---)
Total 6 (---)		





VINCENT MARY SCHOOL OF **ENGINEERING,** **SCIENCE AND TECHNOLOGY**





BACHELOR OF ENGINEERING

PROGRAM IN ELECTRICAL AND COMPUTER ENGINEERING

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Engineering in Electrical and Computer Engineering upon students who meet all of the following requirements:

1. Have completed the total number of credits of the curriculum
2. Have obtained a cumulative grade point average of at least 2.00
3. Have met the minimum English proficiency requirement specified in one of the following criteria:

(1) AU English Proficiency Assessment	70% or
(2) TOEFL (iBT)	90 or
(3) TOEFL (P)	575 or
(4) IELTS	6.5
4. Have participated in 16 sessions of the Professional Ethics Seminar
5. Have obtained library and financial clearance from the University
6. Have demonstrated good behavior and discipline

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Have moral and professional ethics.
2. Have knowledge in electrical engineering and able to apply knowledge in the administration of building electrical systems, high-voltage systems, illumination systems, industrial electrical systems, and safety in electrical systems.
3. Capable of conducting research in both theoretical and practical aspects.
4. Have good personality, good social manners and able to appropriately work with people of all levels.
5. Have strong mathematical and computational skills.

Bachelor of Engineering Program in Electrical and Computer Engineering

Curriculum Structure

Total number of credits	140	Credits
A. General Education Courses	30	Credits
Language Courses	14	Credits
Social Science Courses	9	Credits
Humanities Courses	2	Credits
Science and Mathematics Courses	5	Credits
B. Specialized Courses	104	Credits
Basic Engineering Courses	53	Credits
Major Required Courses	45 / 33	Credits
- Electrical Engineering	45	Credits
- Computer Engineering	33	Credits
Major Elective Courses	6 / 18	Credits
- Electrical Engineering	6	Credits
- Computer Engineering	18	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	30	Credits
Language Courses	14	Credits
ELE 1001 Communicative English I	3 (2-3-6)	
ELE 1002 Communicative English II	3 (2-3-6)	
ELE 2000 Academic English	3 (2-3-6)	
ELE 2001 Advanced Academic English	3 (2-3-6)	
Students select one of the three courses:		
GE 1410 Thai for Professional Communication (For Thai students), OR	2 (2-0-4)	
GE 1411 Thai Language for Multicultural Communication (For non-Thai students), or	2 (2-0-4)	
GE 1412 Introductory Thai Usage (For Thai students from international programs)	2 (2-0-4)	
Social Science Courses	9	Credits
BBA 1004 Essential Marketing for Entrepreneurs	2 (2-0-4)	
BBA 1005 Essential Finance for Entrepreneurs	2 (2-0-4)	
BBA 1006 Essential Economics for Entrepreneurs	2 (2-0-4)	
GE 2202 Ethics	3 (3-0-6)	
Humanities Courses	2	Credits
GE2110 Human Civilizations and Global Citizens	2 (2-0-4)	
Science and Mathematics Courses	5	Credits
BBA 1007 Data Analytics for Entrepreneurs	3 (2-2-5)	
GE 1303 Science for Sustainable Future	2 (2-0-4)	
B. Specialized Courses	104	Credits
Basic Engineering Courses	53	Credits
Common Basic Engineering Courses:	46	Credits
BG 1204 Calculus I	3 (3-0-6)	
BG 1205 Calculus II	3 (3-0-6)	
BG 1211 Physics I	3 (3-0-6)	
BG 1212 Physics Laboratory I	1 (0-3-2)	
BG 1213 Physics II	3 (3-0-6)	
BG 1214 Physics Laboratory II	1 (0-3-2)	
BG 1221 Computer Programming	3 (3-0-6)	
BG 2207 Engineering Mathematics	3 (3-0-6)	
BG 2212 Applied Statistics	3 (3-0-6)	
CE 2102 Data Structures and Algorithms	3 (3-0-6)	
CE 2704 Digital Logic Design	3 (3-0-6)	

CE 2705	Digital Logic Design Laboratory	1 (0-3-2)
EE 2201	Electric Circuits	3 (3-0-6)
EE 2202	Electric Circuits Laboratory	1 (0-3-2)
EE 2605	Engineering Electronics	3 (3-0-6)
EE 2606	Engineering Electronics Laboratory	1 (0-3-2)
EE 3705	Microprocessors and Microcontrollers	3 (3-0-6)
ME 1113	Engineering Drawing	3 (2-3-6)
ME 1114	Engineering Workshop	2 (0-4-2)
Basic Engineering Courses for Electrical:		7 Credits
BG 0008	General Chemistry Laboratory	1 (0-3-2)
BG 1108	General Chemistry	3 (3-0-6)
IE 1110	Engineering Materials	3 (3-0-6)
Basic Engineering Courses for Computer:		7 Credits
BG 2208	Discrete Mathematics	3 (3-0-6)
CE 3222	Computer Networks	3 (3-0-6)
CE 4224	Telecommunication Network Laboratory	1 (0-3-2)
Major Required Courses		
Major Required Courses for Electrical		45 Credits
CE 4224	Telecommunication Network Laboratory	1 (0-3-2)
EE 2410	Electrical Machines System	3 (3-0-6)
EE 2411	Electrical Machines System Laboratory	1 (0-3-2)
EE 3301	Electromagnetic Fields	3 (3-0-6)
EE 3310	Signals, Systems, and Communications	3 (3-0-6)
EE 3406	Control Systems	3 (3-0-6)
EE 3606	Electrical Instruments and Measurements	3 (3-0-6)
EE 4401	Electric Drive	3 (3-0-6)
EE 4501	Power System Analysis	3 (3-0-6)
EE 4503	Electrical Systems Design	3 (3-0-6)
EE 4505	Power System Protection	3 (3-0-6)
EE 4506	High Voltage Engineering	3 (3-0-6)
EE 4518	Electrical Power Generation, Transmission and Distribution	3 (3-0-6)
EE 4705	Power Electronics	3 (3-0-6)
EE 4706	Power Electronics Laboratory	1 (0-3-2)
EE 4901	Electrical and Electronics Engineering Project I	1 (0-3-2)
EE 4902	Electrical and Electronics Engineering Project II	2 (0-6-3)
ME 2211	Engineering Mechanics I	3 (3-0-6)
Major Required Courses for Computer		33 Credits
CE 2103	Object-Oriented Programming	3 (3-0-6)
CE 2104	Software Design and Development	3 (3-0-6)
CE 2703	Introduction to Computer Systems	3 (3-0-6)
CE 2709	Computer Architecture	3 (3-0-6)
CE 3103	Computer Operating Systems	3 (3-0-6)
CE 3104	Software Engineering	3 (2-3-6)
CE 3109	Database Management Systems	3 (3-0-6)
CE 4221	Network Applications and Technology	3 (3-0-6)
CE 4225	Computer and Network Security	3 (3-0-6)
CE 4715	Artificial Intelligence I	3 (3-0-6)
CE 4901	Computer Engineering Project I	1 (0-3-2)
CE 4902	Computer Engineering Project II	2 (0-6-3)
Major Elective Courses		
Major Elective Course for Electrical		6 Credits
Major Elective Courses for Computer		18 Credits
Students can take major elective courses from the following courses		
Major Elective Courses: Electrical Engineering		
*Electrical Engineering students must take these courses.		
EE 4511	Renewable Energy	3 (3-0-6)
EE 4512	Smart Grid	3 (3-0-6)
Major Elective Courses: Computer Engineering		

*Computer Engineering students can choose any course in any track below as their major elective courses.

Track 1: Industrial Design and Automation Technology

EE 3601	Electronic Circuit Design	3 (3-0-6)
EE 3602	Electronic Circuit Design Laboratory	1 (0-3-2)
EE 4403	Basic Mechatronics	3 (3-0-6)
MCE 3220	Fundamentals of Electric Vehicles	3 (3-0-6)
MCE 4104	Automation Technology 4.0	3 (3-0-6)

Track 2: Computer Innovation and Technology

CE 3003	Mobile Applications Development	3 (3-0-6)
CE 3106	Programming Languages	3 (3-0-6)
CE 3111	Design and Analysis of Algorithms	3 (3-0-6)
CE 4201	Image Processing and Computer Vision	3 (3-0-6)
CE 4207	System and Network Programming	3 (3-0-6)
CE 4223	Advanced Computer Networks	3 (3-0-6)
CE 4226	Network Systems Analysis and Design	3 (3-0-6)
CE 4227	Mobile and Wireless Networks	3 (3-0-6)
CE 4310	Introduction to Financial Technology	3 (3-0-6)

Track 3: Telecommunication Technology

EE 3310	Signals, Systems and Communications	3 (3-0-6)
EE 4305	Digital Signal Processing	3 (3-0-6)
TE 3102	Communication Networks and Transmission Lines	3 (3-0-6)
TE 3301	Radio Wave Propagation	3 (3-0-6)
TE 4111	Antenna Engineering	3 (3-0-6)
TE 4112	Optical Communications	3 (3-0-6)
TE 4113	Digital Communications	3 (3-0-6)
TE 4201	Communication Electronics	3 (3-0-6)
TE 4202	Communication Electronics Laboratory	1 (0-3-2)
TE 4301	Principle of Telecommunications Policies	3 (3-0-6)

Track 4: Internet of Things and Cloud Computing

CE 4114	Data Mining	3 (3-0-6)
CE 4229	Introduction to Cloud Computing	3 (3-0-6)
CE 4301	Fundamental of Internet of Things	3 (3-0-6)
CE 4303	Introduction to Big-Data	3 (3-0-6)
CE 4304	Programming for Data Analytics	3 (3-0-6)
CE 4716	Artificial Intelligence II	3 (3-0-6)
EE 3704	Embedded Systems	3 (3-0-6)

Track 5: Game Design and Development

CE 3901	Digital Audio/Video Coding Technique	3 (3-0-6)
CE 4801	Computer Graphics Programming	3 (3-0-6)
CE 4802	Fundamentals of Virtual Reality	3 (3-0-6)
CE 4803	Fundamentals of Game Development	3 (3-0-6)
CE 4804	Introduction to GPU Computing	3 (3-0-6)
CE 4810	Advanced Topics in Game Development	3 (3-0-6)
CE 4811	Special Problems in Game Development	3 (3-0-6)
CDI 3211	Game Design	3 (2-2-5)
GDC 3107	User Interface Design	3 (2-2-5)

Track 6: Engineering Management and Entrepreneurship

BEN 3303	Entrepreneurial Leadership	3 (3-0-6)
BEN 3304	Project Management	3 (3-0-6)
BEN 4213	Digital Entrepreneurship	3 (3-0-6)
BEN 4315	Family Business Management	3 (3-0-6)
CE4108	Operations Research	3 (3-0-6)
CE 4109	Information Systems Analysis and Design	3 (3-0-6)
IE 4201	Engineering Management	3 (3-0-6)
IE 4203	Engineering Economics	3 (3-0-6)

Track 7: Industrial Training and Advanced Topics

CE 4903	Advanced Topics in Computer Engineering	3 (3-0-6)
CE 4904	Special Problems in Computer Engineering	3 (3-0-6)
CE 4907	Computer Engineering Industrial Training	3 (0-9-6)

EE 4903	Advanced Topics in Electrical and/or Electronic Engineering	3 (3-0-6)
EE 4904	Special Problems in Electrical and/or Electronic Engineering	3 (3-0-6)
EE 4907	Electrical Engineering Industrial Training	3 (0-9-6)

Note: Computer Engineering students can take courses from other majors required courses to fulfill their major elective courses.

C. Free Elective Courses

CE 1000	Digital Literacy for Engineers	3 (3-0-6)
EE 1000	Basic Engineering Tools	3 (3-0-6)

Students can take free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any).

Study Plan

Major: Electrical Engineering

First Year

First Semester

Course Code	Course Title	Credits
BG 1204	Calculus I	3 (3-0-6)
BG 1211	Physics I	3 (3-0-6)
BG 1212	Physics Laboratory I	1 (0-3-2)
BG 1221	Computer Programming	3 (3-0-6)
ELE 1001	Communicative English I	3 (2-3-6)
Students select one of the following three courses:		2 (2-0-4)
GE 1410	Thai for Professional Communication (For Thai students), OR	
GE 1411	Thai Language for Multicultural Communication (For non-Thai students), OR	
GE 1412	Introductory Thai Usage (For Thai students from international program)	
ME 1114	Engineering Workshop	2 (0-4-2)
Total		17 (13-10-32)

Second Semester

Course Code	Course Title	Credits
BG 1205	Calculus II	3 (3-0-6)
BG 1213	Physics II	3 (3-0-6)
BG 1214	Physics Laboratory II	1 (0-3-2)
CE 2102	Data Structures and Algorithms	3 (3-0-6)
ELE 1002	Communicative English II	3 (2-3-6)
IE 1110	Engineering Materials	3 (3-0-6)
ME 1113	Engineering Drawing	3 (2-3-6)
Total		19 (16-9-38)

Second Year

First Semester

Course Code	Course Title	Credits
BBA 1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
BG 0008	General Chemistry Laboratory	1 (0-3-2)
BG 1108	General Chemistry	3 (3-0-6)
BG 2207	Engineering Mathematics	3 (3-0-6)
EE 2201	Electric Circuits	3 (3-0-6)
EE 2202	Electric Circuits Laboratory	1 (0-3-2)
EE 2605	Engineering Electronics	3 (3-0-6)
EE 2606	Engineering Electronics Laboratory	1 (0-3-2)
ELE 2000	Academic English	3 (2-3-6)
Total		20 (16-12-40)

Second Semester

Course Code	Course Title	Credits
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
BG 2212	Applied Statistics	3 (3-0-6)
CE 2704	Digital Logic Design	3 (3-0-6)
CE 2705	Digital Logic Design Laboratory	1 (0-3-2)
EE 2410	Electrical Machines System	3 (3-0-6)
EE 2411	Electrical Machines System Laboratory	1 (0-3-2)
ELE 2001	Advanced Academic English	3 (2-3-6)
ME 2211	Engineering Mechanics I	3 (3-0-6)
Total 19 (16-9-38)		

Third Year**First Semester**

Course Code	Course Title	Credits
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
CE 4224	Telecommunication Network Laboratory	1 (0-3-2)
EE 3301	Electromagnetic Fields	3 (3-0-6)
EE 3310	Signals, Systems, and Communications	3 (3-0-6)
EE 3606	Electrical Instruments and Measurements	3 (3-0-6)
EE 3705	Microprocessors & Microcontrollers	3 (3-0-6)
GE 2202	Ethics	3 (3-0-6)
Total 18 (17-3-36)		

Second Semester

Course Code	Course Title	Credits
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
EE 3406	Control Systems	3 (3-0-6)
EE 4401	Electric Drive	3 (3-0-6)
EE 4518	Electrical Power Generation, Transmission and Distribution	3 (3-0-6)
GE 1303	Science for Sustainable Future	2 (2-0-4)
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
	Free Elective Course	3 (3-0-6)
Total 19 (18-2-37)		

Fourth Year**First Semester**

Course Code	Course Title	Credits
EE 4501	Power System Analysis	3 (3-0-6)
EE 4503	Electrical Systems Design	3 (3-0-6)
EE 4506	High Voltage Engineering	3 (3-0-6)
EE 4901	Electrical and Computer Engineering Project I	1 (0-3-2)
	Major Elective Course	3 (3-0-6)
	Free Elective Course	3 (3-0-6)
Total 16 (15-3-32)		

Second Semester

Course Code	Course Title	Credits
EE 4505	Power System Protection	3 (3-0-6)
EE 4705	Power Electronics	3 (3-0-6)
EE 4706	Power Electronics Laboratory	1 (0-3-2)
EE 4902	Electrical and Computer Engineering Project II	2 (0-6-3)
	Major Elective Course	3 (3-0-6)
Total 12 (9-9-23)		

Major: Computer Engineering**First Year****First Semester**

Course Code	Course Title	Credits
BG 1204	Calculus I	3 (3-0-6)
BG 1211	Physics I	3 (3-0-6)
BG 1212	Physics Laboratory I	1 (0-3-2)
BG 1221	Computer Programming	3 (3-0-6)
BG 2208	Discrete Mathematics	3 (3-0-6)
ELE 1001	Communicative English I	3 (2-3-6)
Students select one of the following three courses		2 (2-0-4)
GE 1410	Thai for Professional Communication (For Thai students), OR	
GE 1411	Thai Language for Multicultural Communication (For non-Thai students), OR	
GE 1412	Introductory Thai Usage (For Thai students from international program)	
ME 1114	Engineering Workshop	2 (0-4-2)

Total 20 (16-10-38)**Second Semester**

Course Code	Course Title	Credits
BG 1205	Calculus II	3 (3-0-6)
BG 1213	Physics II	3 (3-0-6)
BG 1214	Physics Laboratory II	1 (0-3-2)
CE 2102	Data Structures and Algorithms	3 (3-0-6)
CE 2703	Introduction to Computer Systems	3 (3-0-6)
ELE 1002	Communicative English II	3 (2-3-6)
ME 1113	Engineering Drawing	3 (2-3-6)

Total 19 (16-9-38)**Second Year****First Semester**

Course Code	Course Title	Credits
BBA 1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
BG 2207	Engineering Mathematics	3 (3-0-6)
CE 2103	Object-Oriented Programming	3 (3-0-6)
EE 2201	Electric Circuits	3 (3-0-6)
EE 2202	Electric Circuits Laboratory	1 (0-3-2)
EE 2605	Engineering Electronics	3 (3-0-6)
EE 2606	Engineering Electronics Laboratory	1 (0-3-2)
ELE 2000	Academic English	3 (2-3-6)

Total 19 (16-9-38)**Second Semester**

Course Code	Course Title	Credits
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
BG 2212	Applied Statistics	3 (3-0-6)
CE 2104	Software Design and Development	3 (3-0-6)
CE 2704	Digital Logic Design	3 (3-0-6)
CE 2705	Digital Logic Design Laboratory	1 (0-3-2)
ELE 2001	Advanced Academic English	3 (2-3-6)
GE 1303	Science for Sustainable Future2 (2-0-4)	

Total 19 (17-6-38)**Third Year****First Semester**

Course Code	Course Title	Credits
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
CE 2709	Computer Architecture	3 (3-0-6)
CE 3103	Computer Operating Systems	3 (3-0-6)

CE 3109	Database Management Systems	3 (3-0-6)
CE 4221	Network Applications and Technology	3 (3-0-6)
EE 3705	Microprocessors and Microcontrollers	3 (3-0-6)
Total 18 (17-2-35)		

Second Semester

Course Code	Course Title	Credits
CE 3104	Software Engineering	3 (2-3-6)
CE 4224	Telecommunication Network Laboratory	1 (0-3-2)
CE 3222	Computer Networks	3 (3-0-6)
GE 2110	Human Civilization and Global Citizens	2 (2-0-4)
GE 2202	Ethics	3 (3-0-6)
	One Major Elective Course	3 (3-0-6)
Total 15 (13-6-30)		

Fourth Year

First Semester

Course Code	Course Title	Credits
CE 4225	Computer and Network Security	3 (3-0-6)
CE 4715	Artificial Intelligence I	3 (3-0-6)
CE 4901	Computer Engineering Project I	1 (0-3-2)
	One Major Elective Course	3 (3-0-6)
	One Major Elective Course	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
Total 16 (15-3-32)		

Second Semester

Course Code	Course Title	Credits
CE 4902	Computer Engineering Project II	2 (0-6-3)
	One Major Elective Course	3 (3-0-6)
	One Major Elective Course	3 (3-0-6)
	One Major Elective Course	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
Total 14 (12-6-27)		



BACHELOR OF ENGINEERING

PROGRAM IN MECHATRONICS ENGINEERING AND ARTIFICIAL INTELLIGENCE

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Engineering in Mechatronics Engineering and AI upon students who meet all of the following requirements:

1. Have completed the total number of credits of the curriculum
2. Have obtained a cumulative grade point average of at least 2.00
3. Have met the minimum English proficiency requirement specified in one of the following criteria:

(1) AU English Proficiency Assessment	70% or
(2) TOEFL (iBT)	90 or
(3) TOEFL (P)	575 or
(4) IELTS	6.5
4. Have participated in 16 sessions of the Professional Ethics Seminar
5. Have obtained library and financial clearance from the University
6. Have demonstrated good behavior and discipline

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Have moral and professional ethics.
2. Have knowledge in Mechatronics Engineering and able to apply knowledge.
3. Capable of conducting research in both theoretical and practical aspects.
4. Have good personality, good social manners and able to appropriately work with people of all levels.
5. Have strong mathematical, computational and information technology skills

Bachelor of Engineering Program In Mechatronics Engineering and Artificial Intelligence

Curriculum Structure

Total number of credits	136	Credits
A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
General Education Elective Courses	9	Credits
B. Specialized Courses	97	Credits
Basic Engineering Courses	27	Credits
Core Courses	28	Credits
Major Required Courses	33	Credits
Major Elective Courses	9	Credits
C. Free Elective Courses	15	Credits

Courses

A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
ELE 1001 Communicative English I	3	(2-3-6)
ELE 1002 Communicative English II	3	(2-3-6)
ELE 2000 Academic English	3	(2-3-6)
ELE 2001 Advanced Academic English	3	(2-3-6)
GE 2202 Ethics	3	(3-0-6)
General Education Elective Courses	9	Credits
Students select 9 credits from the following courses:		
Humanities Courses		
GE 1104 Thai Historical Perspectives	3	(3-0-6)
GE 2102 Human Heritage and Globalization	3	(3-0-6)
GE 2103 Art of Reasoning	3	(3-0-6)
GE 2110 Human Civilizations and Global Citizens	2	(2-0-4)
ADX 1102 Design Culture Exposure	2	(0-4-4)
ADX 1140 Journey for Urban Art and Culture Exploration	3	(3-0-6)
FT 2003A Foods Changing the World (Part A)	2	(2-0-4)
FT 2003B Foods Changing the World (Part B)	1	(1-0-2)
GE 1107 Perspectives in Politics and Economy	3	(3-0-6)
MU 1002 Pop Music Appreciation	3	(3-0-6)
MU 1231 History and Literature of Music	3	(3-0-6)
MU 3602 Music Therapy	3	(3-0-6)
MU 4223 Music in Human Life	3	(3-0-6)
Social Science Courses		
GE 1204 Physical Education	1	(0-2-1)
GE 1205 ASEAN Ways	3	(3-0-6)
GE 1209 Psychology Application in Daily Life	3	(3-0-6)
GE 2207 Sport, Health and Wellness Development	3	(3-0-6)
GE 2209 The Power of Personality in Leadership	3	(3-0-6)
GE 2210 Love and Art of Living	3	(3-0-6)
BBA 1004 Essential Marketing for Entrepreneurs	2	(2-0-4)
BBA 1005 Essential Finance for Entrepreneurs	2	(2-0-4)
BBA 1006 Essential Economics for Entrepreneurs	2	(2-0-4)
ADX 1101 Art and Design Appreciation	3	(3-0-6)
ADX 1240 Artist Studio (Painting and Rendering)	3	(2-2-5)
ADX 1303 Design Communication	3	(2-2-5)
ADX 1304 Design Fundamental	3	(2-2-5)
BBA 1010 Design Thinking in Business	3	(3-0-6)
BBA 1012 Entrepreneurial Marketing	3	(3-0-6)
BBA 1020 Design Thinking Essentials	2	(2-0-4)
BBA 1021 Design Thinking Workshop	1	(1-0-2)
BBA 1022 Building CEO and Leadership Essentials	2	(2-0-4)
BBA 1023 Building CEO and Leadership Workshop	1	(1-0-2)

	BBA 1024	Entrepreneurial Marketing Essentials	2 (2-0-4)
	BBA 1025	Entrepreneurial Marketing Workshop	1 (1-0-2)
	CA 1110	Art and Beauty of Living	3 (2-2-5)
	AD 3280	Inspiration, Lifestyles and Popular Culture	3 (2-2-5)
	EG 1001	Digital Literacy	3 (3-0-6)
	FT 1003	Food Factory Explore Trip (Special Course)	3 (3-0-6)
	FT 2004	Drinkology: The Art of drinking	3 (3-0-6)
	FT 2005	Food Zodiac	3 (3-0-6)
	GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
	GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
	ITX 2004	UI/UX Design and Prototyping (For Non-Science Students)	3 (3-0-6)
	ITX 2005	Design Thinking (For Non-Science Students)	3 (3-0-6)
	ITX 4502	Tech Startup (For Non-Science Students)	3 (3-0-6)
	LLB 1501	Business Law (For Non-Law Students)	3 (3-0-6)
	LLB 1502	Fundamentals of Tax Law (For Non-Law Students)	3 (3-0-6)
	LLB 4540	International Business Law and Start-Up Business (For Non-Law Students)	3 (3-0-6)
	LLB 4806	Business and Human Rights (For Non-Law Students)	3 (3-0-6)
	MB 2531	Music Business	3 (3-0-6)
	NGE 0110	First Aid and Basic Life Support	3 (3-0-6)
	NGE 0111	Innovative Media and Project Influencing Health Risk Behavior (For Non-Nursing Students)	3 (3-0-6)
Science and Mathematics Courses			
	GE 1302	Ecology and Sustainability	3 (3-0-6)
	GE 1303	Science for Sustainable Future	2 (2-0-4)
	GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
	BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
	BBA 1013	Entrepreneurial Finance (For Non-MSME Students)	3 (3-0-6)
	BBA 1014	The Art of Data for Business	3 (3-0-6)
	BBA 1026	Entrepreneurial Finance Essentials (For Non-MSME Students)	2 (2-0-4)
	BBA 1027	Entrepreneurial Finance Workshop (For Non-MSME Students)	1 (1-0-2)
	BBA 1028	The Art of Data Essentials	2 (2-1-4)
	BBA 1029	The Art of Data Workshop	1 (0-1-1)
	CA 1201	Creative Photography	3 (2-2-5)
	CA 1202	Computer Graphic for Presentation Design for Pitching	3 (2-2-5)
	CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
	EG 1002	Application Design for Everyone Literacy	3 (3-0-6)
	EG 1003	Introduction to Internet of Things (IoTs) Literacy	3 (3-0-6)
	EG 1004	Artificial Intelligence for Beginners	3 (3-0-6)
	EG 1005	3D Modelling and 3D Printing Technology	3 (3-0-6)
	FT 1004A	Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
	FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
	FT 1005	Sustainability and Circular Living	3 (3-0-6)
	DM 3280	Digital Art in Data Visualization	3 (2-2-5)
	ITX 3002	Introduction to Information Technology	3 (3-0-6)
Language Courses			
	GE 1403	Thai Language for Professional Communication	3 (3-0-6)
	GE 1409	Thai Language for Intercultural Communication (For Non-Thai Students)	3 (3-0-6)
	GE 1410	Thai for Professional Communication (For Thai Students)	2 (2-0-4)
	GE 1411	Thai Language for Multicultural Communication (For Non-Thai Students)	2 (2-0-4)
	GE 1412	Introductory Thai Usage (For Thai Students from International Program)	2 (2-0-4)

GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)

B. Specialized Courses

97 Credits

Basic Engineering Courses

27 Credits

BG 0008	General Chemistry Laboratory	1 (0-3-2)
BG 1108	General Chemistry	3 (3-0-6)
BG 1204	Calculus I	3 (3-0-6)
BG 1205	Calculus II	3 (3-0-6)
BG 1211	Physics I	3 (3-0-6)
BG 1212	Physics Laboratory I	1 (0-3-2)
BG 1213	Physics II	3 (3-0-6)
BG 1214	Physics Laboratory II	1 (0-3-2)
BG 1221	Computer Programming	3 (3-0-6)
BG 2207	Engineering Mathematics	3 (3-0-6)
BG 2212	Applied Statistics	3 (3-0-6)

Core Courses

28 Credits

CE 2704	Digital Logic Design	3 (3-0-6)
CE 2705	Digital Logic Design Laboratory	1 (0-3-2)
EE 2201	Electric Circuits	3 (3-0-6)
EE 2202	Electric Circuits Laboratory	1 (0-3-2)
EE 2605	Engineering Electronics	3 (3-0-6)
EE 2606	Engineering Electronics Laboratory	1 (0-3-2)
EE 3705	Microprocessors and Microcontrollers	3 (3-0-6)
IE 1110	Engineering Materials	3 (3-0-6)
ME 1115	Engineering Drawing and Computer Aided Design	3 (1-2-6)
ME 1116	Engineering Workshop	1 (0-3-2)
ME 2211	Engineering Mechanics I	3 (3-0-6)
ME 2220	Engineering Mechanics II	3 (3-0-6)

Major Required Courses

33 Credits

CE 2102	Data Structures and Algorithms	3 (3-0-6)
CE 4715	Artificial Intelligence I	3 (3-0-6)
CE 4716	Artificial Intelligence II	3 (3-0-6)
EE 2410	Electrical Machine Systems	3 (3-0-6)
EE 2411	Electrical Machine System Laboratory	1 (0-3-2)
EE 3406	Control Systems	3 (3-0-6)
MCE 2101	Fundamentals of Mechatronics Engineering	3 (3-0-6)
MCE 2103	Fundamentals of Mechatronics Engineering Laboratory	1 (0-3-2)
MCE 4101	Introduction to Robotics	3 (3-0-6)
MCE 4911	Mechatronics Engineering and Artificial Intelligence Project I	1(0-3-2)
MCE 4912	Mechatronics Engineering and Artificial Intelligence Project II	2 (0-6-3)
ME 3110	Mechanics of Materials	3 (3-0-6)
ME 3311	Pneumatic and Hydraulic Systems	3 (3-0-6)
ME 3312	Pneumatic and Hydraulic Systems Laboratory	1 (0-3-2)

Major Elective Courses

9 Credits

Students can select major required courses or major elective courses offered by other programs in the School of Engineering as their major elective courses.

Students can also take major elective courses of 9 credits from the following courses in 4 tracks below offered by the School of Engineering. It is noted that students can choose courses across the tracks.

Students must take at least 1 of 2 courses from IE 4201 Engineering Management or IE 4203 Engineering Economics, or any other entrepreneurship courses offered by Assumption University and approved by the Dean.

Track 1: Robotics and Automation

	MCE 4104	Automation Technology 4.0	3 (3-0-6)
	MCE 4201	Advanced Robotics and Control	3 (3-0-6)
	ME 4602	Maritime Robotics	3 (3-0-6)
Track 2: Engineering Entrepreneurship			
	CE 4108	Operations Research	3 (3-0-6)
	IE 4201	Engineering Management	3 (3-0-6)
	IE 4203	Engineering Economics	3 (3-0-6)
	IE 4410	Logistics	3 (3-0-6)
Track 3: Mechanism Design and Applications			
	ME 3120	Mechanics of Machinery	3 (3-0-6)
	ME 4010	Machine Design	3 (3-0-6)
	ME 4310	Mechanical Vibration	3 (3-0-6)
Track 4: Engineering and Technology			
	BG 2214	Linear Algebra	3 (3-0-6)
	CE 4201	Image Processing and Computer Vision	3 (3-0-6)
	CE 4221	Network Applications and Technology	3 (3-0-6)
	CE 4301	Fundamentals of Internet of Things	3 (3-0-6)
	CE 4304	Programming for Data Analytics	3 (3-0-6)
	CE 4801	Computer Graphics Programming	3 (3-0-6)
	EE 3310	Signals, Systems and Communications	3 (3-0-6)
	EE 3405	Digital Control Systems	3 (3-0-6)
	EE 3606	Electrical Instruments and Measurements	3 (3-0-6)
	EE 3704	Embedded Systems	3 (3-0-6)
	EE 4401	Electric Drive	3 (3-0-6)
	EE 4511	Renewable Energy	3 (3-0-6)
	IE 3100	Manufacturing Processes	3 (3-0-6)
	IE 4101	Manufacturing and Information Technology	3 (3-0-6)
	MCE 3220	Fundamentals of Electric Vehicles	3 (3-0-6)
	MCE 3710	Principles of Railway Engineering	3 (3-0-6)
	MCE 4720	Railway Signaling and Telecommunications	3 (3-0-6)
	MCE 4730	Railway System Operation and Maintenance	3 (3-0-6)
	MCE 4907	Engineering Internship	3 (0-9-6)
	MCE 4913	Advanced Topics in Mechatronics Engineering and Artificial Intelligence	3 (3-0-6)
	MCE 4914	Special Problems in Mechatronics Engineering and Artificial Intelligence	3 (3-0-6)
	ME 3410	Thermodynamics	3 (3-0-6)
	ME 3414	Fluid Mechanics	3 (3-0-6)
	ME 3418	Heat Transfer	3 (3-0-6)

C. Free Elective Courses

15 Credits

Students can take free elective courses of 15 credits from 7 courses below, or from any courses in any faculty in Assumption University upon completion of the prerequisites (if any).

	CE 1000	Digital Literacy for Engineers	3 (3-0-6)
	EE 1000	Basic Engineering Tools	3 (3-0-6)
	EFE 4001	Selected Study in Engineering I	3 (3-0-6)
	EFE 4002	Selected Study in Engineering II	3 (3-0-6)
	EFE 4003	Selected Study in Engineering III	3 (3-0-6)
	EFE 4004	Selected Study in Engineering IV	3 (3-0-6)
	EFE 4005	Selected Study in Engineering V	3 (3-0-6)

Study Plan**First Year****First Semester**

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BG 1204	Calculus I	3 (3-0-6)
BG 1211	Physics I	3 (3-0-6)
BG 1212	Physics Laboratory I	1 (0-3-2)
BG 1221	Computer Programming	3 (3-0-6)
ME 1115	Engineering Drawing and Computer Aided Design	3 (1-2-6)
ME 1116	Engineering Workshop	1 (0-3-2)
	One GE Elective Course	3 (3-0-6)
Total		20 (15-11-40)

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BG 0008	General Chemistry Laboratory	1 (0-3-2)
BG 1108	General Chemistry	3 (3-0-6)
BG 1205	Calculus II	3 (3-0-6)
BG 1213	Physics II	3 (3-0-6)
BG 1214	Physics Laboratory II	1 (0-3-2)
IE 1110	Engineering Materials	3 (3-0-6)
	One GE Elective Course	3 (3-0-6)
Total		20 (17-9-40)

Second Year**First Semester**

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
BG 2212	Applied Statistics	3 (3-0-6)
CE 2704	Digital Logic Design	3 (3-0-6)
CE 2705	Digital Logic Design Laboratory	1 (0-3-2)
EE 2201	Electric Circuits	3 (3-0-6)
EE 2202	Electric Circuits Laboratory	1 (0-3-2)
MCE 2101	Fundamental of Mechatronics Engineering	3 (3-0-6)
MCE 2103	Fundamental of Mechatronics Engineering Laboratory	1 (0-3-2)
ME 2211	Engineering Mechanics I	3 (3-0-6)
Total		21 (17-12-42)

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
CE 2102	Data Structures and Algorithms	3 (3-0-6)
BG 2207	Engineering Mathematics	3 (3-0-6)
EE 2410	Electrical Machine Systems	3 (3-0-6)
EE 2411	Electrical Machine System Laboratory	1 (0-3-2)
EE 2605	Engineering Electronics	3 (3-0-6)
EE 2606	Engineering Electronics Laboratory	1 (0-3-2)
ME 2220	Engineering Mechanics II	3 (3-0-6)
Total		20 (17-9-40)

Third Year**First Semester**

Course Code	Course Title	Credits
CE 4715	Artificial Intelligence I	3 (3-0-6)
EE 3705	Microprocessors and Microcontrollers	3 (3-0-6)
ME 3110	Mechanics of Materials	3 (3-0-6)
ME 3311	Pneumatic and Hydraulic Systems	3 (3-0-6)

	ME 3312	Pneumatic and Hydraulic Systems Laboratory	1 (0-3-2)
		One GE Elective Course	3 (3-0-6)
		Total 16 (15-3-32)	
Second Semester			
	Course Code	Course Title	Credits
	CE 4716	Artificial Intelligence II	3 (3-0-6)
	EE 3406	Control Systems	3 (3-0-6)
		Three Major Elective Courses	9 (9-0-18)
		Total 15 (15-0-30)	
Fourth Year			
First Semester			
	Course Code	Course Title	Credits
	GE 2202	Ethics	3 (3-0-6)
	MCE 4101	Introduction to Robotics	3 (3-0-6)
	MCE 4911	Mechatronics Engineering and Artificial Intelligence Project I	1 (0-3-2)
		Two Free Elective Courses	6 (6-0-12)
		Total 13 (12-3-26)	
Second Semester			
	Course Code	Course Title	Credits
	MCE 4912	Mechatronics Engineering and Artificial Intelligence Project II	2 (0-6-3)
		Three Free Elective Courses	9 (9-0-18)
		Total 11 (9-6-21)	



BACHELOR OF ENGINEERING

PROGRAM IN AERONAUTIC ENGINEERING

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Engineering in Aeronautic Engineering upon students who meet all of the following requirements specified in the Graduate Program Standard Criteria B.E. 2548 and Assumption University Bylaw B.E. 2548 as follows:

- Have completed of the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance with the University
- Have demonstrated good-behavior and discipline

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Be morally sound, committed to acting justly and open to further growth
2. Have aeronautic knowledge both engineering and non-engineering
3. Have aircraft maneuver skills
4. Be open-minded with strong logical thinking problem-solving
5. Have communication skills

Bachelor of Engineering Program in Aeronautics Engineering

Curriculum Structure

Total number of credits	127	Credits
A. General Education Courses	24	Credits
Required Courses	15	Credits
Elective Courses	9	Credits
B. Specialized Courses	97	Credits
Basic Engineering Courses	28	Credits
Major Required Courses	51	Credits
Major Elective Courses	18	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	24	Credits
Required Courses	15	Credits
BG 1001 English I		3 (2-3-6)
BG 1002 English II		3 (2-3-6)
BG 2000 English III		3 (2-3-6)
BG 2001 English IV		3 (2-3-6)
GE 2202 Ethics		3 (3-0-6)
Elective Courses	9	Credits

Students select 9 credits from the following courses or other general education courses offered by the University:

AD 3280	Inspiration, Lifestyles and Popular Culture	3 (2-2-5)
ADX 1101	Art and Design Appreciation	3 (0-6-3)
ADX 1102	Design Culture Exposure	2 (0-4-4)
ADX 1140	Journey for Urban Art and Culture Exploration	3 (3-0-6)
ADX 1240	Artist Studio (Painting and Rendering)	3 (1-4-4)
ADX 1303	Design Communication	3 (2-2-5)
ADX 1304	Design Fundamental	3 (2-2-5)
BBA 1010	Design Thinking in Business	3 (3-0-6)
BBA 1012	Entrepreneurial Marketing	3 (3-0-6)
BBA 1013	Entrepreneurial Finance	3 (3-0-6)
BBA 1014	The Art of Data for Business	3 (3-0-6)
BBA 1020	Design Thinking Essentials	2 (2-0-4)
BBA 1021	Design Thinking Workshop	1 (1-0-2)
BBA 1022	Building CEO and Leadership Essentials	2 (2-0-4)
BBA 1023	Building CEO and Leadership Workshop	1 (1-0-2)
BBA 1024	Entrepreneurial Marketing Essentials	2 (2-0-4)
BBA 1025	Entrepreneurial Marketing Workshop	1 (1-0-2)
BBA 1026	Entrepreneurial Finance Essentials	2 (2-0-4)
BBA 1027	Entrepreneurial Finance Workshop	1 (1-0-2)
BBA 1028	The Art of Data Essentials	2 (2-1-4)
BBA 1029	The Art of Data Workshop	1 (0-1-1)
CA1110	Art and Beauty of Living	3 (2-2-5)
CA 1201	Creative Photography	3 (2-2-5)
CA 1202	Computer Graphic for Presentation Design for Pitching	3 (5-2-2)
CN 0400	Chinese for Beginners I	3 (3-0-6)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
EG 1001	Digital Literacy	3 (3-0-6)
EG 1002	Application Design for Everyone	3 (3-0-6)
EG 1003	Introduction to Internet of Things (IoTs)	3 (3-0-6)
EG 1004	Artificial Intelligence for beginners	3 (3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3 (3-0-6)
FIB 1515	Fundamental French	3 (3-0-6)
FIB 1516	Communicative French I	3 (3-0-6)

FT 1003	Food Factory Explore Trip (Special course)	3 (3-0-6)
FT 1004A	Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
FT 1005	Sustainability and Circular Living	3 (3-0-6)
FT 2003A	Foods Changing the World (Part A)	2 (4-0-2)
FT 2003B	Foods Changing the World (Part B)	1 (2-0-1)
FT 2004	Drinkology: The Art of drinking	3 (3-0-6)
FT 2005	Food Zodiac	3 (3-0-6)
GE 1104	Thai Historical Perspectives	3 (3-0-6)
GE 1107	Perspectives in Politics and Economy	3 (3-0-6)
GE 1204	Physical Education	1 (0-2-1)
GE 1205	ASEAN Ways	3 (3-0-6)
GE 1209	Psychology Application in Daily Life	3 (3-0-6)
GE 1302	Ecology and Sustainability	3 (3-0-6)
GE 1403	Thai Language for Professional Communication (For Thai students)	3 (3-0-6)
GE 1409	Thai Language for Intercultural Communication (For Non-Thai students)	3 (3-0-6)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
JA 0721	Japanese for Beginners I	3 (3-0-6)
JA 0723	Reading and Writing Japanese Scripts	3 (3-0-6)
LLB 1501	Business Law	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business	3 (3-0-6)
LLB 4806	Business and Human Rights	3 (3-0-6)
MB 2531	Music Business	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior	3 (3-0-6)

B. Specialized Courses

Basic Engineering Courses

		97	Credits
		28	Credits
BG 1109	Principles of Chemistry	3	(2-3-5)
BG 1204	Calculus I	3	(3-0-6)
BG 1205	Calculus II	3	(3-0-6)
BG 1215	Principles of Physics I	3	(2-3-5)
BG 1216	Principles of Physics II	3	(2-3-5)
BG 1221	Computer Programming	3	(3-0-6)
EG 1004	Artificial Intelligent for beginner	3	(3-0-6)
IE 1110	Engineering Materials	3	(3-0-6)

ME 1115	Engineering Drawing	3 (1-2-6)
ME 1116	Engineering Workshop	1 (0-3-2)
Major in Commercial Pilot		
Major Required Courses		51 Credits
AE 3121	Core Flying: Single-Engine Flight - Ground	3 (3-0-6)
AE 3122	Theory of Single-Engine Flight	3 (3-0-6)
AE 3124	Basic Flying: Single/Multi-Engine - Ground	3 (3-0-6)
AE 3125	Core Flying: Single-Engine Flight - Flight	3 (0-9-6)
AE 3126	Basic Flying: Single/Multi-Engine - Flight	3 (0-9-6)
AE 3127	Basic Flying: Multi-Engine Operations	3 (0-9-6)
AE 3321	Intermediate Flying: Basic Flight Performance and Planning	3 (3-0-6)
AE 3322	Intermediate Flying: Basic Meteorology	3 (3-0-6)
AE 3324	Intermediate Flying: Basic Human Performance and Limitations	3 (3-0-6)
AE 3325	Intermediate Flying: Crew Resources Management and Flight Safety	3 (3-0-6)
AE 3421	Intermediate Flying: Basic and advanced Aerodynamics	3 (3-0-6)
AE 3521	Intermediate Flying: Basic Powerplants and Instrumentations	3 (3-0-6)
AE 3705	Commercial Flight – Ground	3 (3-0-6)
AE 4715	Commercial Flight I	3 (0-9-6)
AE 4716	Commercial Flight II	3 (0-9-6)
AE 4717	Commercial Flight III	3 (0-9-6)
AE 4718	Commercial Flight IV	3 (0-9-6)

Major in Aircraft Maintenance Engineer

Major Required Courses		51 Credits
AE 3311	Aircraft System: Technical Document System	3 (3-0-6)
AE 3312	Aircraft Maintenance: Maintenance Human Factor	3 (3-0-6)
AE 3412	Aircraft System: Aviation Legislation and Airworthiness Regulations	3 (3-0-6)
AE 3512	Aircraft System: Aircraft Communications	3 (3-0-6)
AE 3710	Aircraft Maintenance: Aircraft Maintenance I	3 (2-3-6)
AE 3711	Aircraft Maintenance: Aircraft Maintenance II	3 (2-3-6)
AE 3712	Aircraft System: Hydraulic and Pneumatic System	3 (2-3-6)
AE 3713	Aircraft System: Landing Gear and Brake System	3 (2-3-6)
AE 3723	Fundamental Aircraft: Aircraft Structure	3 (2-3-6)
AE 3726	Fundamental Aircraft: Aerodynamics	3 (3-0-6)
AE 3727	Fundamental Aircraft: Aircraft Performance	3 (3-0-6)
AE 3728	Fundamental Aircraft: Aircraft Materials and Hardware	3 (2-3-6)
AE 4721	Aircraft System: Fuel System	3 (2-3-6)
AE 4723	Aircraft System: Stability and Weight & Balance System	3 (2-3-6)
AE 4726	Aircraft System: Propeller	3 (2-3-6)
AE 4727	Aircraft System: Aircraft Gas Turbine Engine	3 (2-3-6)
AE 4821	Aircraft System: Aircraft Electrical System	3 (2-3-6)

Major Elective Courses	18 Credits
1) Commercial Pilot License	18 Credits
2) Aircraft Maintenance Engineer	18 Credits

Students of all majors can select major elective courses of 18 credits from the following courses in 4 tracks below offered by the School of Engineering, Science and Technology. It is noted that students can choose courses across the tracks.

Track 1: Advanced in Commercial Pilot Training

AE 4221	Commercial Flight Route Planning Assignment	3 (3-0-6)
AE 4321	Performance, Mass and Balance and Operational Procedures	3 (3-0-6)

AE 4322	Meteorology and Principles of flight	3 (3-0-6)
AE 4421	Aircraft general knowledge	3 (3-0-6)
AE 4422	Air law and Human performance	3 (3-0-6)
AE 4521	General Navigation and Flight planning & Monitoring	3 (3-0-6)
AE 4522	Radio Navigation and Radiotelephony	3 (3-0-6)
AE 4700	Commercial Pilot License Instructor	3 (3-0-6)
AE 4724	Aircraft System: Commercial Aircraft System	3 (3-0-6)
AE 4725	Aircraft System: Air Navigation	3 (3-0-6)
AE 4731	Commercial Pilot License Instructor: Flight I	3 (0-9-6)
AE 4732	Commercial Pilot License Instructor: Flight II	3 (0-9-6)
Track 2: Problem Based in Aircraft Maintenance		
AE 2702	Fundamental Aircraft: Aircraft Piston Engine	3 (3-0-6)
AE 2923	Problem-based Training in Aircraft Maintenance I	3 (0-15-5)
AE 2924	Problem-based Training in Aircraft Maintenance II	3 (0-15-5)
AE 3401	Avionics	3 (3-0-6)
AE 3923	Problem-based Training in Aircraft Maintenance III	3 (0-15-5)
AE 3924	Fundamental Aircraft: Practical Verification	3 (0-15-5)
AE 4623	Aircraft System: Non-Destructive Inspection	3 (2-3-6)
AE 4907	Aeronautics Engineering Industrial Training	3 (0-15-5)
AE 4908	Aircraft System: Practical Verification	3 (0-15-5)
AE 4909	Aircraft Maintenance: Practical Verification	3 (0-15-5)
Track 3: Specialization in Aeronautic Engineering		
AE 4001	Selected Topic in Aeronautics Engineering I	3 (3-0-6)
AE 4002	Selected Topic in Aeronautics Engineering II	3 (3-0-6)
AE 4003	Selected Topic in Aeronautics Engineering III	3 (3-0-6)
AE 4004	Selected Topic in Aeronautics Engineering IV	3 (3-0-6)
AE 4005	Selected Topic in Aeronautics Engineering V	3 (3-0-6)
AE 4006	Selected Topic in Aeronautics Engineering VI	3 (3-0-6)
AE 4904	Special Problems in Aeronautics Engineering I	3 (3-0-6)
AE 4905	Special Problems in Aeronautics Engineering II	3 (3-0-6)
AE 4911	Special Problems in Aeronautics Engineering III	3 (3-0-6)
AE 4930	Advanced Topics in Aeronautics Engineering I	3 (3-0-6)
AE 4931	Advanced Topics in Aeronautics Engineering II	3 (3-0-6)
AE 4934	Advanced Topics in Aeronautics Engineering III	3 (3-0-6)
Track 4: Aeronautics Exposure and Seminar		
AE 1000	Basic Aircraft Knowledge	3 (3-0-6)
AE 1001	Basic Aviation Knowledge	3 (3-0-6)
AE 1002	Principles of Aviation Engineering	3 (3-0-6)
AE 1111	Aviation Industry Knowledge	3 (3-0-6)
AE 2402	English for Aviation	3 (3-0-6)
AE 3900	Seminar in International and Domestic Navigation	3 (3-0-6)

C. Free Elective Courses

6 Credits

Students can take free elective courses of 6 credits from any courses in any faculty in Assumption University upon completion of the prerequisites (if any).

Study Plan

a) Commercial Pilot

First Year

First Semester

Course Code	Course Title	Credits
BG 1109	Principles of Chemistry	3 (2-3-5)
BG 1001	English I	3 (3-2-6)
BG 1204	Calculus I	3 (3-0-6)
BG 1215	Principles of Physics I	3 (2-3-5)
ME 1115	Engineering Drawing	3 (1-2-6)
Total		15 (11-10-28)

Second Semester

Course Code	Course Title	Credits
BG 1002	English II	3 (3-2-6)
BG 1205	Calculus II	3 (3-0-6)
BG 1216	Principles of Physics II	3 (2-2-5)
ME 1116	Engineering Workshop	1 (0-3-2)
IE 1110	Engineering Materials	3 (3-0-6)
GE xxxx	General Elective	3 (3-0-6)
Total	16 (14-8-31)	

Second Year**First Semester**

Course Code	Course Title	Credits
BG 1221	Computer Programming	3 (3-0-6)
BG 2000	English III	3 (3-2-6)
EG 1004	Artificial Intelligent for beginner	3 (3-0-6)
GE xxxx	General Elective	3 (3-0-6)
xxxx	Free Elective	3 (3-0-6)
Total	15 (15-2-30)	

Second Semester

Course Code	Course Title	Credits
BG 2001	English IV	3 (3-2-6)
GE 2202	Ethics	3 (3-0-6)
GE xxxx	General Elective	3 (3-0-6)
xxxx	Free Elective	3 (3-0-6)
Total	12 (12-2-24)	

Third Year**First Semester**

Course Code	Course Title	Credits
AE 3121	Core Flying: Single-Engine Flight – Ground	3 (3-0-6)
AE 3122	Theory of Single-Engine Flight	3 (3-0-6)
AE 3124	Basic Flying: Single/Multi-Engine – Ground	3 (3-0-6)
AE 3125	Core Flying: Single-Engine Flight – Flight	3 (0-9-6)
AE 3126	Basic Flying: Single/Multi-Engine - Flight	3 (0-9-6)
AE 3127	Basic Flying: Multi-Engine Operations	3 (0-9-6)
Total	18 (18-0-36)	

Second Semester

Course Code	Course Title	Credits
AE 3321	Intermediate Flying: Basic Performance and Planning	3 (3-0-6)
AE 3322	Intermediate Flying: Basic Meteorology	3 (3-0-6)
AE 3324	Intermediate Flying: Basic Human Performance and Limitations	3 (3-0-6)
AE 3325	Intermediate Flying: Crew Resources Management and Flight Safety	3 (3-0-6)
AE 3421	Intermediate Flying: Basic and advanced Aerodynamics	3 (3-0-6)
AE 3521	Intermediate Flying: Basic Powerplants and Instrumentations	3 (3-0-6)
Total	18 (18-0-36)	

Fourth Year**First Semester**

Course Code	Course Title	Credits
AE 3705	Commercial Flight - Ground	3 (3-0-6)
AE 4715	Commercial Flight I	3 (0-9-6)
AE 4716	Commercial Flight II	3 (0-9-6)
AE 4717	Commercial Flight III	3 (0-9-6)
AE 4718	Commercial Flight IV	3 (0-9-6)

		Total	15 (3-36-30)
Second Semester			
	Course Code	Course Title	Credits
	AE xxxx	Major elective course	3 (3-0-6)
	AE xxxx	Major elective course	3 (3-0-6)
	AE xxxx	Major elective course	3 (3-0-6)
	AE xxxx	Major elective course	3 (3-0-6)
	AE xxxx	Major elective course	3 (3-0-6)
	AE xxxx	Major elective course	3 (3-0-6)
		Total	18 (18-0-36)

b) Aircraft Maintenance Engineer

First Year

First Semester			
	Course Code	Course Title	Credits
	BG 1109	Principles of Chemistry	3 (2-3-5)
	BG 1001	English I	3 (3-2-6)
	BG 1204	Calculus I	3 (3-0-6)
	BG 1215	Principles of Physics I	3 (2-3-5)
	ME 1115	Engineering Drawing	3 (1-2-6)
		Total	15 (11-10-28)

Second Semester			
	Course Code	Course Title	Credits
	BG 1002	English II	3 (3-2-6)
	BG 1205	Calculus II	3 (3-0-6)
	BG 1216	Principles of Physics II	3 (2-2-5)
	ME 1116	Engineering Workshop	1 (0-3-2)
	IE 1110	Engineering Materials	3 (3-0-6)
	GE xxxx	General Elective	3 (3-0-6)
		Total	16 (14-8-31)

Second Year

First Semester			
	Course Code	Course Title	Credits
	BG 1221	Computer Programming	3 (3-0-6)
	BG 2000	English III	3 (3-2-6)
	EG 1004	Artificial Intelligent for beginner	3 (3-0-6)
	GE xxxx	General Elective	3 (3-0-6)
	xxxx	Free Elective	3 (3-0-6)
		Total	15 (15-2-30)

Second Semester			
	Course Code	Course Title	Credits
	BG 2001	English IV	3 (3-2-6)
	GE 2202	Ethics	3 (3-0-6)
	GE xxxx	General Elective	3 (3-0-6)
	xxxx	Free Elective	3 (3-0-6)
		Total	12 (12-2-24)

Third Year

First Semester			
	Course Code	Course Title	Credits
	AE 3312	Aircraft Maintenance: Maintenance Human Factor	3 (3-0-6)
	AE 3412	Aircraft System: Aviation Legislation and Airworthiness Regulations	3 (3-0-6)
	AE 3710	Aircraft Maintenance: Aircraft Maintenance I	3 (2-3-6)
	AE 3726	Fundamental Aircraft: Aerodynamics	3 (3-0-6)
	AE 3723	Fundamental Aircraft: Aircraft Structure	3 (2-3-6)
	AE 3728	Fundamental Aircraft: Aircraft Materials and Hardware	3 (2-3-6)

Total 18 (15-9-36)

Second Semester

Course Code	Course Title	Credits
AE 3311	Aircraft System: Technical Document System	3 (3-0-6)
AE 3512	Aircraft System: Aircraft Communications	3 (3-0-6)
AE 3711	Aircraft Maintenance: Aircraft Maintenance II	3 (2-3-6)
AE 3712	Aircraft System: Hydraulic and Pneumatic System	3 (2-3-6)
AE 3713	Aircraft System: Landing Gear and Brake System	3 (2-3-6)
AE 3727	Fundamental Aircraft: Aircraft Performance	3 (3-0-6)
Total	18 (13-9-36)	

Fourth Year

First Semester

Course Code	Course Title	Credits
AE 4721	Aircraft System: Fuel System	3 (2-3-6)
AE 4723	Aircraft System: Stability and Weight & Balance System	3 (2-3-6)
AE 4726	Aircraft System: Propeller	3 (2-3-6)
AE 4727	Aircraft System: Aircraft Gas Turbine Engine	3 (2-3-6)
AE 4821	Aircraft System: Aircraft Electrical System	3 (2-3-6)
Total	15 (10-15-30)	

Second Semester

Course Code	Course Title	Credits
AE xxxx	Major elective course	3 (3-0-6)
AE xxxx	Major elective course	3 (3-0-6)
AE xxxx	Major elective course	3 (3-0-6)
AE xxxx	Major elective course	3 (3-0-6)
AE xxxx	Major elective course	3 (3-0-6)
AE xxxx	Major elective course	3 (3-0-6)
Total	18 (18-10-36)	

BACHELOR OF ENGINEERING

PROGRAM IN NEW ENERGY AUTOMOTIVE ENGINEERING

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Engineering in Mechatronics Engineering and AI upon students who meet all of the following requirements:

1. Have completed the total number of credits of the curriculum
2. Have obtained a cumulative grade point average of at least 2.00
3. Have met the minimum English proficiency requirement specified in one of the following criteria:

(1) AU English Proficiency Assessment	70% or
(2) TOEFL (iBT)	90 or
(3) TOEFL (P)	575 or
(4) IELTS	6.5
4. Have participated in 16 sessions of the Professional Ethics Seminar
5. Have obtained library and financial clearance from the University
6. Have demonstrated good behavior and discipline

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Have moral and professional ethics.
2. Have knowledge in Mechatronics Engineering and able to apply knowledge.
3. Capable of conducting research in both theoretical and practical aspects.
4. Have good personality, good social manners and able to appropriately work with people of all levels.
5. Have strong mathematical, computational and information technology skills

Bachelor of Engineering Program In New Energy Automotive Engineering

Curriculum Structure

Total number of credits		
126 Credits		
A. General Education Courses	24 Credits	
Required Courses	15 Credits	
Elective Courses	9 Credits	
B. Specialized Courses	93 Credits	
Basic Engineering Courses	24 Credits	
Core Courses	24 Credits	
Major Required Courses	36 Credits	
Major Elective Courses	9 Credits	
C. Free Elective Courses	9 Credits	

Courses

A. General Education Courses	24 Credits
Required Courses	15 Credits
ELE 1001 Communicative English I	3 (2-3-6)
ELE 1002 Communicative English II	3 (2-3-6)
ELE 2000 Academic English	3 (2-3-6)
ELE 2001 Advanced Academic English	3 (2-3-6)
GE 2202 Ethics	3 (3-0-6)
Elective Courses	9 Credits

Students select 9 credits from the following courses or other general education courses offered by the University:

AD 3280	Inspiration, Lifestyles and Popular Culture	3 (2-2-5)
ADX 1101	Art and Design Appreciation	3 (0-6-3)
ADX 1102	Design Culture Exposure	2 (0-4-4)
ADX 1140	Journey for Urban Art and Culture Exploration	3 (3-0-6)
ADX 1240	Artist Studio (Painting and Rendering)	3 (1-4-4)
ADX 1303	Design Communication	3 (2-2-5)
ADX 1304	Design Fundamental	3 (2-2-5)
BBA 1010	Design Thinking in Business	3 (3-0-6)
BBA 1012	Entrepreneurial Marketing	3 (3-0-6)
BBA 1013	Entrepreneurial Finance	3 (3-0-6)
BBA 1014	The Art of Data for Business	3 (3-0-6)
BBA 1020	Design Thinking Essentials	2 (2-0-4)
BBA 1021	Design Thinking Workshop	1 (1-0-2)
BBA 1022	Building CEO and Leadership Essentials	2 (2-0-4)
BBA 1023	Building CEO and Leadership Workshop	1 (1-0-2)
BBA 1024	Entrepreneurial Marketing Essentials	2 (2-0-4)
BBA 1025	Entrepreneurial Marketing Workshop	1 (1-0-2)
BBA 1026	Entrepreneurial Finance Essentials	2 (2-0-4)
BBA 1027	Entrepreneurial Finance Workshop	1 (1-0-2)
BBA 1028	The Art of Data Essentials	2 (2-1-4)
BBA 1029	The Art of Data Workshop	1 (0-1-1)
CA 1110	Art and Beauty of Living	3 (2-2-5)
CA 1201	Creative Photography	3 (2-2-5)
CA 1202	Computer Graphic for Presentation Design for Pitching	3 (2-2-5)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
EG 1001	Digital Literacy	3 (3-0-6)
EG 1002	Application Design for Everyone	3 (3-0-6)
EG 1003	Introduction to Internet of Things (IoTs)	3 (3-0-6)
EG 1004	Artificial Intelligence for beginners	3 (3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3 (3-0-6)
FT 1003	Food Factory Explore Trip (Special course)	3 (3-0-6)

FT 1004A	Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
FT 1005	Sustainability and Circular Living	3 (3-0-6)
FT 2003A	Foods Changing the World (Part A)	2 (2-0-4)
FT 2003B	Foods Changing the World (Part B)	1 (1-0-2)
FT 2004	Drinkology: The Art of drinking	3 (3-0-6)
FT 2005	Food Zodiac	3 (3-0-6)
GE 1104	Thai Historical Perspectives	3 (3-0-6)
GE 1107	Perspectives in Politics and Economy	3 (3-0-6)
GE 1204	Physical Education	1 (0-2-1)
GE 1205	ASEAN Ways	3 (3-0-6)
GE 1209	Psychology Application in Daily Life	3 (3-0-6)
GE 1302	Ecology and Sustainability	3 (3-0-6)
GE 1403	Thai Language for Professional Communication (For Thai students)	3 (3-0-6)
GE 1409	Thai Language for Intercultural Communication (For Non-Thai students)	3 (3-0-6)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
LLB 1501	Business Law	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business	3 (3-0-6)
LLB 4806	Business and Human Rights	3 (3-0-6)
MB 2531	Music Business	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior	3 (3-0-6)

B. Specialized Courses

93 Credits

Basic Engineering Courses

24 Credits

BG 1109	Principles of Chemistry	3 (2-2-5)
BG 1204	Calculus I	3 (3-0-6)
BG 1205	Calculus II	3 (3-0-6)
BG 1215	Principles of Physics I	3 (2-2-5)
BG 1216	Principles of Physics II	3 (2-2-5)
BG 1221	Computer Programming	3 (3-0-6)
BG 2207	Engineering Mathematics	3 (3-0-6)
IE 1110	Engineering Materials	3 (3-0-6)

Core Courses

24 Credits

IE 2101	Fundamentals of Manufacturing Processes	3 (3-0-6)
ME 1115	Engineering Drawing	3 (2-2-5)

	ME 2211	Engineering Mechanics I	3 (3-0-6)
	NEA 2001	Automotive Culture	3 (3-0-6)
	NEA 2101	Fundamentals of Automotive Engineering	3 (2-2-5)
	NEA 2501	Electric Circuits and Electronics	3 (2-2-5)
	NEA 2502	Electric Machine System	3 (2-2-5)
	NEA 2503	Sensor for Automotive Engineering	3 (2-2-5)
Major Required Courses			36 Credits
	NEA 3001	Design of Vehicle Structure	3 (2-2-5)
	NEA 3101	Automotive Chassis System	3 (2-2-5)
	NEA 3201	Automotive Electrical System	3 (2-2-5)
	NEA 3301	Introduction to Hybrid and Electric Vehicle	3 (3-0-6)
	NEA 3401	Integrated Vehicle Control Technology	3 (2-2-5)
	NEA 4301	Electric Drive and Power Transmission System	3 (2-2-5)
	NEA 4401	Energy Charging Technology	3 (2-2-5)
	NEA 4404	Energy Storage and Battery Management System	3 (2-2-5)
	NEA 4501	Inspection and Problem Analysis for New Energy Vehicle	3 (2-2-5)
	NEA 4601	Electric Vehicle Maintenance	3 (2-2-5)
	NEA 4901	New Energy Automotive Engineering Project I	3 (0-6-3)
	NEA 4902	New Energy Automotive Engineering Project II	3 (0-6-3)

Major Elective Courses 9 Credits

Students can take major elective courses of from the following courses in 3 tracks below offered by the Faculty of Engineering, Science, and Technology. It is noted that students can choose courses across the tracks.

Students must take at least 1 course from Track 1: Engineering Entrepreneurship, or any other entrepreneurship, business, or data analytics courses offered by Assumption University and approved by the Dean.

Students can select major required courses or major elective courses offered by other programs in the Faculty of Engineering, Science, and Technology as their major elective courses.

Track 1: Engineering Entrepreneurship

CE 4108	Operations Research	3 (3-0-6)
IE 4201	Engineering Management	3 (3-0-6)
IE 4203	Engineering Economics	3 (3-0-6)
IE 4410	Logistics	3 (3-0-6)
NEA 4001	Commercial Vehicle	3 (3-0-6)

Track 2: Engineering and Technology

EE 3606	Electrical Instruments and Measurements	3 (3-0-6)
EE 3704	Embedded Systems	3 (3-0-6)
EE 4511	Renewable Energy	3 (3-0-6)
NEA 4907	Industrial Work Experience I	3 (at least 160 hrs)
NEA 4908	Industrial Work Experience II	3 (at least 160 hrs)
NEA 4903	Advanced Topics in New Energy Automotive Engineering	3 (3-0-6)
NEA 4904	Special Problems in New Energy Automotive Engineering	3 (3-0-6)

Track 3: Automation and IoT

MCE 4104	Automation Technology 4.0	3 (3-0-6)
CE 4301	Fundamentals of Internet of Things	3 (3-0-6)
IE 4101	Manufacturing and Information Technology	3 (3-0-6)

C. Free Elective Courses

9 Credits

Students can take free elective courses of 9 credits from 5 courses below, or from any courses in any faculty in Assumption University upon completion of the prerequisites (if any).

BG 3301	Professional English in Engineering and Technology	3 (3-0-6)
CE 1000	Digital Literacy for Engineers	3 (3-0-6)
EE 1000	Basic Engineering Tools	3 (3-0-6)
EFE 4001	Selected Study in Engineering I	3 (3-0-6)
EFE 4002	Selected Study in Engineering II	3 (3-0-6)

Study Plan**First Year****First Semester**

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BG 1204	Calculus I	3 (3-0-6)
BG 1215	Principles of Physics I	3 (2-2-5)
BG 1221	Computer Programming	3 (3-0-6)
ME 1115	Engineering Drawing	3 (1-2-6)
	One GE Elective Course	3 (3-0-6)
Total 18 (14-8-35)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BG 1109	Principles of Chemistry	3 (2-2-5)
BG 1205	Calculus II	3 (3-0-6)
BG 1216	Principles of Physics II	3 (2-2-5)
IE 1110	Engineering Materials	3 (3-0-6)
	One GE Elective Course	3 (3-0-6)
Total 18 (15-7-34)		

Second Year**First Semester**

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
BG 2207	Engineering Mathematics	3 (3-0-6)
ME 2211	Engineering Mechanics I	3 (3-0-6)
NEA 2001	Automotive Culture	3 (3-0-6)
NEA 2501	Electric Circuits and Electronics	3 (2-2-5)
NEA 2101	Fundamentals of Automotive Engineering	3 (2-2-5)
Total 18 (15-7-34)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
GE 2202	Ethics	3 (3-0-6)
IE 2101	Fundamentals of Manufacturing Processes	3 (3-0-6)
NEA 2502	Electric Machine System	3 (2-2-5)
NEA 2503	Sensor for Automotive Engineering	3 (2-2-5)
	One GE Elective Course	3 (3-0-6)
Total 18 (15-7-34)		

Third Year**First Semester**

Course Code	Course Title	Credits
NEA 3001	Design of Vehicle Structure	3 (2-2-5)
NEA 3101	Automotive Chassis System	3 (2-2-5)
NEA 3201	Automotive Electrical System	3 (2-2-5)
NEA 3301	Introduction to Hybrid and Electric Vehicle	3 (3-0-6)
	One Major Elective Course	3 (3-0-6)
Total 15 (12-6-27)		

Second Semester

Course Code	Course Title	Credits
NEA 3401	Integrated Vehicle Control Technology	3 (2-2-5)
NEA 4301	Electric Drive and Power Transmission System	3 (2-2-5)
NEA 4401	Energy Charging Technology	3 (2-2-5)
	Two Major Elective Courses	6 (6-0-12)
Total 15 (12-6-27)		

**Fourth Year
First Semester**

Course Code	Course Title	Credits
NEA 4404	Energy Storage and Battery Management System	3 (2-3-5)
NEA 4501	Inspection and Problem Analysis for New Energy Vehicle	3 (2-3-5)
NEA 4601	Electric Vehicle Maintenance	3 (2-3-5)
NEA 4901	New Energy Automotive Engineering Project I	3 (0-6-3)
Total		12 (6-15-18)

Second Semester

Course Code	Course Title	Credits
NEA 4902	New Energy Automotive Engineering Project II	3 (0-6-3)
	Three Free Elective Courses	9 (9-0-18)
Total		12 (9-6-21)



BACHELOR OF SCIENCE

PROGRAM IN COMPUTER SCIENCE

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Science in Computer Science upon students who meet all of the following requirements:

1. Have completed the total number of credits of the curriculum
2. Have obtained a cumulative grade point average of at least 2.00
3. Have participated in 16 sessions of the Professional Ethics Seminar
4. Have obtained library and financial clearance from the University
5. Have demonstrated good behavior and discipline

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Have morals and ethics
2. Socially responsible and understand well the impacts and consequences of technology towards society and the environment
3. Have the knowledge and understanding of the major principles and theories of computer science
4. Capable of developing the fundamentals of computer programs and with the expertise to analyze, operate and manage computer systems
5. Able to understand the organization and operation of the computer hardware
6. Able to help in the promotion and collaboration of transfer technology which is undergoing rapid development
7. Capable of meeting the nation's present and future needs for computer science experts in the application and development of computer planning
8. Possess systematic, logical and critical thinking skills
9. Able to work with a team and be a leader or a follower
10. Have responsibility in the assigned tasks and continuously have self-development in the field of computer science
11. Able to communicate effectively

Bachelor of Science Program In Computer Science

Curriculum Structure

Total number of credits	132	Credits
A. General Education Courses	30	Credits
Language Courses	15	Credits
Humanities Course	3	Credits
Social Science Courses	6	Credits
Science and Mathematics Courses	6	Credits
B. Specialized Courses	90	Credits
Core Courses	18	Credits
Major Courses	39	Credits
Organization Issues and Information Systems Group	3	Credits
Applications Technology Group	6	Credits
Technology and Software Methods Group	15	Credits
Systems Infrastructure Group	12	Credits
Hardware and Computer Architecture Group	3	Credits
Major Elective Courses	33	Credits
C. Free Elective Courses	12	Credits

Courses

A. General Education Courses	33	Credits
Language Courses	15	Credits
ELE 1001	Communicative English I	3 (3-2-6)
ELE 1002	Communicative English II	3 (3-2-6)
ELE 2000	Academic English	3 (3-2-6)
ELE 2001	Advanced Academic English	3 (3-2-6)
GE 1403	Communication in Thai OR	3 (3-0-6)
GE 1408	Thai Usage	
	(for Thai students from International Program) OR	
GE 1409	Thai Language for intercultural communication	
	(for non-Thai students)	
Humanities Course	3	Credits
GE 2102	Human Heritage and Globalization	3 (3-0-6)
Social Science Courses	6	Credits
BBA 1001	Business Exploration	3 (3-0-6)
GE 2202	Ethics	3 (3-0-6)
Science and Mathematics Courses	6	Credits
GE 1302	Ecology and Sustainability	3 (3-0-6)
IBE 1122	Accounting for Entrepreneurs	3 (3-0-6)
B. Specialized Courses	90	Credits
Core Courses	18	Credits
MA 1200	Mathematics for Business	3 (3-0-6)
CSX 2003	Principles of Statistics	3 (3-0-6)
CSX 2006	Mathematics and Statistics for Data Science	3 (3-0-6)
CSX 2008	Mathematics Foundation for Computer Science	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 2007	Data Science	3 (3-0-6)
Major Courses	39	Credits
Organization Issues and Information Systems Group	3	Credits
ITX 3002	Introduction to Information Technology	3 (3-0-6)
Applications Technology Group	6	Credits
CSX 3010	Senior Project I	3 (0-9-0)
CSX 3011	Senior Project II	3 (0-9-0)
Technology and Software Methods Group	15	Credits

CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
CSX 3002	Object-Oriented Concepts and Programming	3 (3-0-6)
CSX 3003	Data Structures and Algorithms	3 (3-0-6)
CSX 3004	Programming Languages	3 (3-0-6)
CSX 3009	Algorithm Design	3 (3-0-6)
Systems Infrastructure Group		12 Credits
CSX 2009	Cloud Computing	3 (3-0-6)
CSX 3005	Computer Networks	3 (3-0-6)
CSX 3006	Database Systems	3 (3-0-6)
CSX 3008	Operating Systems	3 (3-0-6)
Hardware and Computer Architecture Group		3 Credits
CSX 3007	Computer Architecture	3 (3-0-6)
Major Elective Courses		33 Credits

Major Elective Courses are divided into two groups:

Major Elective Courses Group 1 which consists of 2 concentrations including

- Software Engineering and Development (SED)

- Informatics and Data Science (IDS); and

Major Elective Courses Group 2

*Students are required to choose one concentration out of 2 concentrations and study 5 subjects (15 credits) from the chosen concentration and study 6 subjects (18 credits) from all major elective courses.

Group 1(A): Software Engineering and Development

ITX 3004	Information System Analysis and Design	3 (3-0-6)
ITX 3007	Software Engineering	3 (3-0-6)
ITX 4104	Software Testing	3 (3-0-6)
CSX 4107	Web Application Development	3 (3-0-6)
CSX 4109	Android Application Development	3 (3-0-6)
CSX 4110	Backend Application Development	3 (3-0-6)
CSX 4407	Enterprise Application Development	3 (3-0-6)
CSX 4180	Selected Topic [in Software Engineering]	3 (3-0-6)
- 4199		

Group 1(B): Informatics and Data Science

CSX 4201	Artificial Intelligence Concepts	3 (3-0-6)
CSX 4203	Machine Learning	3 (3-0-6)
CSX 4207	Decision Support and Recommender Systems	3 (3-0-6)
CSX 4210	Natural Language Processing and	3 (3-0-6)

Social Interactions

CSX 4211	Data Engineering	3 (3-0-6)
CSX 4212	Data Analytics	3 (3-0-6)
CSX 4213	Computer Vision	3 (3-0-6)
CSX 4280	Selected Topic [in Data Science]	3 (3-0-6)
- 4299		

Major Elective Courses Group 2

CSX 4108	iOS Application Development	3 (3-0-6)
CSX 4202	Data Mining	3 (3-0-6)
CSX 4205	Big Data Analytics	3 (3-0-6)
CSX 4206	Data Warehousing and Business Intelligence	3 (3-0-6)
CSX 4208	Deep Learning	3 (3-0-6)
CSX 4306	Internet of Things	3 (3-0-6)
CSX 4501	Theory of Computation	3 (3-0-6)
CSX 4510	Neural Networks	3 (3-0-6)
CSX 4513	AR/VR Application Development	3 (3-0-6)
CSX 4514	Cross-platform Application Development	3 (3-0-6)
CSX 4515	Game Design and Development	3 (3-0-6)
CSX 4516	Reusability and Design Patterns	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 3003	Business Systems	3 (3-0-6)
ITX 4212	Predictive Analytics	3 (3-0-6)
ITX 4213	Artificial Intelligence for Business	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)

ITX 4509	Cybersecurity	3 (3-0-6)
ITX 4517	Software Configuration Management	3 (3-0-6)
ITX 4518	Blockchain and Digital Currencies	3 (3-0-6)
ITX 4519	Internetworking Workshop	3 (3-0-6)
CSX 4600	Selected Topics	3 (3-0-6)
- 4699		

C. Free Elective Courses

12 Credits

Students can take free elective courses of 12 credits from any faculty in Assumption University upon completion of the prerequisite.

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (3-2-6)
BBA1001	Business Exploration	3 (3-0-6)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
MA 1200	Mathematics for Business	3 (3-0-6)
Total 15 (15-2-30)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (3-2-6)
CSX 2003	Principles of Statistics	3 (3-0-6)
CSX 3002	Object-Oriented Concepts and Programming	3 (3-0-6)
IBE 1122	Accounting for Entrepreneurs	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
Total 15 (15-2-30)		

Second Year

First Semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (3-2-6)
CSX 2006	Mathematics and Statistics for Data Science	3 (3-0-6)
CSX 2008	Mathematics Foundation for Computer Science	3 (3-0-6)
CSX 3003	Data Structures and Algorithms	3 (3-0-6)
CSX 3005	Computer Networks	3 (3-0-6)
ITX 2007	Data Science	3 (3-0-6)
Total 18 (18-2-36)		

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (3-2-6)
GE 1302	Ecology and Sustainability	3 (3-0-6)
CSX 2009	Cloud Computing	3 (3-0-6)
CSX 3004	Programming Languages	3 (3-0-6)
CSX 3006	Database Systems	3 (3-0-6)
	One Major Elective Course	3 (3-0-6)
Total 18 (18-2-36)		

Third Year

First Semester

Course Code	Course Title	Credits
GE 1403	Communication in Thai OR	3 (3-0-6)
GE 1408	Thai Usage (for Thai students from International Program) OR	
GE 1409	Thai Language for intercultural communication (for non-Thai students)	
CSX 3007	Computer Architecture	3 (3-0-6)

CSX 3008	Operating Systems	3 (3-0-6)
	Two Major Elective Courses	6 (6-0-12)
	One Free Elective Course	3 (3-0-6)
Total 18 (18-0-36)		

Second Semester

Course Code	Course Title	Credits
GE 2102	Human Heritage and Globalization	3 (3-0-6)
CSX 3009	Algorithm Design	3 (3-0-6)
CSX 3010	Senior Project I	3 (0-9-0)
	Two Major Elective Courses	6 (6-0-12)
	One Free Elective Course	3 (3-0-6)
Total 18 (15-9-30)		

Fourth Year

First Semester

Course Code	Course Title	Credits
GE 2202	Ethics	3 (3-0-6)
	Four Major Elective Courses	12 (12-0-24)
	One Free Elective Course	3 (3-0-6)
Total 18 (18-0-36)		

Second Semester

Course Code	Course Title	Credits
CSX 3011	Senior Project II	3 (0-9-0)
	Two Major Elective Courses	6 (6-0-12)
	One Free Elective Course	3 (3-0-6)
Total 12 (12-9-18)		



BACHELOR OF SCIENCE

PROGRAM IN APPLY INFORMATICS

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Science in Information Technology upon students who meet all of the following requirements:

1. Have completed the total number of credits of the curriculum
2. Have obtained a cumulative grade point average of at least 2.00
3. Have participated in 16 sessions of the Professional Ethics Seminar
4. Have obtained library and financial clearance from the University
5. Have demonstrated good behaviour and discipline

OBJECTIVES

To produce graduates who have the characteristics, knowledge and skills as follows:

1. Have morals and ethics
2. Understand and are responsible for the impacts and consequences of technology towards society and the environment
3. Have the knowledge and understanding of the major principles and theories of information technology
4. Able to manage and develop information systems and communication network
5. Capable of applying new technology in the design, operation, linkage, control and management of information systems
6. Possess systematic, logical and critical thinking skills
7. Able to provide advice and coordinate the services needed by executives in both internal and external units of organizations
8. Able to provide solutions related to information systems in the dynamic environment
9. Able to work with a team and be a leader or a follower
10. Have responsibility in the assigned tasks and continuously have self-development in the field of information technology
11. Able to communicate effectively

**Bachelor of Science Program
In Applied Informatics**

Curriculum Structure

Total number of credits	126	Credits
A. General Education Courses	24	Credits
Required Courses	15	Credits
Elective Courses	9	Credits
B. Specialized Courses	90	Credits
Core Courses	21	Credits
Major Courses	42	Credits
- Organization Issues and Information Systems Group	9	Credits
- Applications Technology Group	15	Credits
- Technology and Software Methods Group	12	Credits
- Systems Infrastructure Group	6	Credits
Major Elective Courses	27	Credits
C. Free Elective Courses	12	Credits

Courses

A. General Education Courses	24	Credits
Required Courses	15	Credits
ELE 1001 Communicative English I	3	(2-3-6)
ELE 1002 Communicative English II	3	(2-3-6)
ELE 2000 Academic English	3	(2-3-6)
ELE 2001 Advanced Academic English	3	(2-3-6)
GE 2202 Ethics	3	(3-0-6)
Elective Course	9	Credits

Students select 9 credits from the following courses or other general education courses offered by the University:

AD 3280	Inspiration, Lifestyles and Popular Culture	3	(2-2-5)
ADX 1101	Art and Design Appreciation	3	(0-6-3)
ADX 1102	Design Culture Exposure	2	(0-4-4)
ADX 1140	Journey for Urban Art and Culture Exploration	3	(3-0-6)
ADX 1240	Artist Studio (Painting and Rendering)	3	(1-4-4)
ADX 1303	Design Communication	3	(2-2-5)
ADX 1304	Design Fundamental	3	(2-2-5)
BBA 1010	Design Thinking in Business	3	(3-0-6)
BBA 1012	Entrepreneurial Marketing	3	(3-0-6)
BBA 1013	Entrepreneurial Finance	3	(3-0-6)
BBA 1014	The Art of Data for Business	3	(3-0-6)
BBA 1020	Design Thinking Essentials	2	(2-0-4)
BBA 1021	Design Thinking Workshop	1	(1-0-2)
BBA 1022	Building CEO and Leadership Essentials	2	(2-0-4)
BBA 1023	Building CEO and Leadership Workshop	1	(1-0-2)
BBA 1024	Entrepreneurial Marketing Essentials	2	(2-0-4)
BBA 1025	Entrepreneurial Marketing Workshop	1	(1-0-2)
BBA 1026	Entrepreneurial Finance Essentials	2	(2-0-4)
BBA 1027	Entrepreneurial Finance Workshop	1	(1-0-2)
BBA 1028	The Art of Data Essentials	2	(2-1-4)
BBA 1029	The Art of Data Workshop	1	(0-1-1)
CA 1110	Art and Beauty of Living	3	(2-2-5)
CA 1201	Creative Photography	3	(2-2-5)
CA 1202	Computer Graphic for Presentation Design for Pitching	3	(2-2-5)
CSX 3001	Fundamentals of Computer Programming	3	(3-0-6)

EG 1001	Digital Literacy	3 (3-0-6)
EG 1002	Application Design for Everyone	3 (3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3 (3-0-6)
FT 1003	Food Factory Explore Trip (Special course)	3 (3-0-6)
FT 1004	A Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
FT 1005	Sustainability and Circular Living	3 (3-0-6)
FT 2003A	Foods Changing the World (Part A)	2 (2-0-4)
FT 2003B	Foods Changing the World (Part B)	1 (1-0-2)
FT 2004	Drinkology: The Art of drinking	3 (3-0-6)
FT 2005	Food Zodiac	3 (3-0-6)
GE 1104	Thai Historical Perspectives	3 (3-0-6)
GE 1107	Perspectives in Politics and Economy	3 (3-0-6)
GE 1204	Physical Education	1 (0-2-1)
GE 1205	ASEAN Ways	3 (3-0-6)
GE 1209	Psychology Application in Daily Life	3 (3-0-6)
GE 1302	Ecology and Sustainability	3 (3-0-6)
GE 1403	Thai Language for Professional Communication (For Thai students)	3 (3-0-6)
GE 1409	Thai Language for Intercultural Communication (For Non-Thai students)	3 (3-0-6)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
LLB 1501	Business Law	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business	3 (3-0-6)
LLB 4806	Business and Human Rights	3 (3-0-6)
MB 2531	Music Business	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior	3 (3-0-6)

B. Specialized Courses

Core Courses

CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
EG 1003	Introduction to Internet of Things (IoTs)	3 (3-0-6)
EG 1004	Artificial Intelligence for Beginners	3 (3-0-6)
ITX 1007	Data Analytics for Entrepreneurs	3 (3-0-6)

90

Credits

21

Credits

ITX 2009	Presentation and Data Visualization Techniques	3 (3-0-6)
ITX 2011	Mathematical Foundations for Informatics	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
Major Required Courses		42 Credits
- Organization Issues and Information Systems Group		9 Credits
ITX 3003	Business Systems	3 (3-0-6)
ITX 3004	Information System Analysis and Design	3 (3-0-6)
ITX 4509	Cybersecurity	3 (3-0-6)
- Applications Technology Group		15 Credits
CE 4310	Introduction to Financial Technology	3 (3-0-6)
ITX 3006	Database Management Systems	3 (3-0-6)
ITX 3009	Senior Project I	3 (0-9-0)
ITX 3010	Senior Project II	3 (0-9-0)
ITX 4202	Data Mining	3 (3-0-6)
- Technology and Software Methods Group		12 Credits
CE 4304	Programming for Data Analytics	3 (3-0-6)
ITX 3007	Software Engineering	3 (3-0-6)
ITX 4508	Quantitative Research for Digital Business	3 (3-0-6)
ITX 4112	Collaborative Applications for Informatics	3 (3-0-6)
- Systems Infrastructure Group		6 Credits
CSX 2009	Cloud Computing	3 (3-0-6)
CSX 3005	Computer Networks	3 (3-0-6)

Major Elective Courses 27 Credits

- Students can take major elective courses from the following courses in 4 tracks below offered by the Faculty of Engineering, Science, and Technology. It is noted that students can choose courses across the tracks.

- Students can also select major required courses or major elective courses offered by other programs in the Faculty of Engineering, Science, and Technology as their major elective courses.

- Notes: Some courses in the Faculty of Engineering, Science, and Technology are equivalent. Taking multiple equivalent courses will be counted as one course.

Track 1: Software Engineering and Development

CE 3003	Mobile Applications Development	3 (3-0-6)
CSX 3002	Object-Oriented Concepts and Programming	3 (3-0-6)
ITX 3008	IT Project Management	3 (3-0-6)
ITX 4103	Requirement Engineering	3 (3-0-6)
ITX 4104	Software Testing	3 (3-0-6)
ITX 4106	Enterprise Architectures	3 (3-0-6)
ITX 4110	Enterprise System Integration	3 (3-0-6)
ITX 4111	Software Architectures	3 (3-0-6)
ITX 4113	Extended Reality Design and Development	3 (3-0-6)
ITX 4503	Information System Security	3 (3-0-6)
ITX 4180	Selected Topic [in Software Engineering]	3 (3-0-6)
-4199		

Track 2: Data Analytics, Data Science and AI

ITX 2007	Data Science	3 (3-0-6)
ITX 4205	Big Data Analytics	3 (3-0-6)
ITX 4207	Decision Support and Recommender System	3 (3-0-6)
ITX 4211	Data Engineering	3 (3-0-6)
ITX 4212	Predictive Analytics	3 (3-0-6)
ITX 4213	Artificial Intelligence for Business	3 (3-0-6)
ITX 4214	Data Science Project Management	3 (3-0-6)
ITX 4215	Business Insights and Visualization	3 (3-0-6)
ITX 4216	Computer Vision	3 (3-0-6)
ITX 4217	Natural Language Processing and Social Interactions	3 (3-0-6)
ITX 4218	AI Chatbot	3 (2-2-5)

ITX 4219	Generative AI for Entrepreneurs	3 (2-2-5)
ITX 4280	Selected Topic [in Data Science and AI]	3 (3-0-6)
-4299		
ITX 4510	Data Policies and Governance	3 (3-0-6)
Track 3: Innovative Marketing and Management Technology		
BBA 1012	Entrepreneurial Marketing	3 (3-0-6)
ITX 4403	Manufacturing Management System	3 (3-0-6)
ITX 4404	Supply Chain Management System	3 (3-0-6)
ITX 4511	Internet of Behaviors	3 (3-0-6)
ITX 4512	Marketing Automation Systems	3 (3-0-6)
ITX 4513	Social Media Analytics	3 (3-0-6)
ITX 4518	Blockchain and Digital Currencies	3 (3-0-6)
ITX 4900	Selected Topic [in Marketing Technology]	3 (3-0-6)
-4999		
Track 4: Selected Topics and Industrial Training		
ITX 4910	Selected Topic [in Food and Agriculture	3 (3-0-6)
-4919	Technology]	
ITX 4920	Selected Topic [in Music Innovation]	3 (3-0-6)
-4929		
ITX 4930	Selected Topic [in Finance and Insurance	3 (3-0-6)
-4939	Technologies]	
ITX 4940	Selected Topic [in Engineering]	3 (3-0-6)
-4949		
ITX 4502	Tech Startup	3 (3-0-6)
ITX 4504	Digital Marketing	3 (3-0-6)
ITX 4505	Digital Transformation	3 (3-0-6)
ITX 4507	Information Retrieval and Search Engines	3 (3-0-6)
ITX 4521	Applied Informatics Industrial Training I	3 (0-9-6)
ITX 4522	Applied Informatics Industrial Training II	3 (0-9-6)
ITX 4523	Applied Informatics Industrial Training III	3 (0-9-6)
ITX 4524	Applied Informatics Industrial Training IV	3 (0-9-6)
ITX 4531	Cybersecurity Risk Management and Compliance	3 (3-0-6)
ITX 4532	Ethical Hacking and Penetration Testing	3 (2-2-5)
ITX 4533	Advanced Topics in Cybersecurity	3 (3-0-6)
ITX 4534	Special Problems in Cybersecurity	3 (3-0-6)

C. Free Elective Courses

12 Credits

Students can take free elective courses of 12 credits from any faculty in Assumption University upon completion of the prerequisite (if any).

INX 1201	AI for Business	2 (2-0-4)
INX 2101	Practical Data Science for Entrepreneurs	2 (2-0-4)
INX 2201	Business Intelligence for Strategic Planning	2 (2-0-4)
INX 1111	Tech Startup	2 (2-0-4)
INX 2111	Application Design and Coding	2 (2-0-4)
INX 2121	Agile Methods	2 (2-0-4)
INX 2122	UI/UX Design and Prototyping	2 (2-0-4)
INX 4101	Software Engineering	3 (3-0-6)
INX 4102	IT Project Management	3 (3-0-6)
INX 4103	Web Application Development	3 (3-0-6)
INX 4104	iOS Application Development	3 (3-0-6)
INX 4105	Android Application Development	3 (3-0-6)
INX 4106	Internet of Things	3 (3-0-6)
INX 4201	Data Mining	3 (3-0-6)
INX 4202	Machine Learning	3 (3-0-6)
INX 4203	Big Data Analytics	3 (3-0-6)
INX 4204	Decision Support and Recommender Systems	3 (3-0-6)
INX 4205	Intelligent System Development	3 (3-0-6)

INX 4301	Sales and Distribution Management System	3 (3-0-6)
INX 4302	Supply Chain Management System	3 (3-0-6)
INX 4303	Finance and Accounting Management System	3 (3-0-6)
INX 4304	Customer Relationship Management System	3 (3-0-6)
INX 4305	FinTech and Blockchain Technology	3 (3-0-6)
INX 4400	Selected Topics	3 (3-0-6)
-4499		

* INX xxxx subjects are only offered for Business Administration Program in Design and Digital Innovation students.

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
ITX 1007	Data Analytics for Entrepreneurs	3 (3-0-6)
ITX 2009	Presentation and Data Visualization Techniques	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
	One GE Elective Course 1	3 (3-0-6)
Total	18 (18-0-36)	

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
EG 1004	Artificial Intelligence for Beginners	3 (3-0-6)
ITX 2011	Mathematical Foundations for Informatics	3 (3-0-6)
ITX 3003	Business Systems	3 (3-0-6)
	One GE Elective Course 2	3 (3-0-6)
	One GE Elective Course 3	3 (3-0-6)
Total	18 (18-0-36)	

Second Year

First Semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
CE 4310	Introduction to Financial Technology	3 (3-0-6)
CSX 3005	Computer Networks	3 (3-0-6)
EG 1003	Introduction to Internet of Things (IoTs)	3 (3-0-6)
ITX 3004	Information System Analysis and Design	3 (3-0-6)
ITX 3006	Database Management Systems	3 (3-0-6)
Total	18 (18-0-36)	

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
CE 4114	Data Mining	3 (3-0-6)
CE 4304	Programming for Data Analytics	3 (3-0-6)
CSX 2009	Cloud Computing	3 (3-0-6)
ITX 3007	Software Engineering	3 (3-0-6)
ITX 4508	Quantitative Research for Digital Business	3 (3-0-6)
Total	18 (18-0-36)	

Third Year

First Semester

Course Code	Course Title	Credits
GE 2202	Ethics	3 (3-0-6)
ITX 4112	Collaborative Applications for Informatics	3 (3-0-6)

		Major Elective 1	3 (3-0-6)
		Major Elective 2	3 (3-0-6)
		Major Elective 3	3 (3-0-6)
		Free Elective 1	3 (3-0-6)
		Total	18 (18-0-36)
Second Semester			
	Course Code	Course Title	Credits
	ITX 4509	Cybersecurity	3 (3-0-6)
		Major Elective 4	3 (3-0-6)
		Major Elective 5	3 (3-0-6)
		Free Elective 2	3 (3-0-6)
		Total	12 (12-0-24)
Fourth Year			
First Semester			
	Course Code	Course Title	Credits
	ITX 3009	Senior Project I	3 (0-9-0)
		Major Elective 6	3 (3-0-6)
		Major Elective 7	3 (3-0-6)
		Free Elective 3	3 (3-0-6)
		Total	12 (12-0-24)
Second Semester			
	Course Code	Course Title	Credits
	ITX 3010	Senior Project II	3 (0-9-0)
		Major Elective 8	3 (3-0-6)
		Major Elective 9	3 (3-0-6)
		Free Elective 4	3 (3-0-6)
		Total	12 (12-0-24)







THEOPHANE VENARD SCHOOL OF BIOTECHNOLOGY





BACHELOR OF SCIENCE

PROGRAM IN FOOD TECHNOLOGY

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Science in Food Technology upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum
- Have obtained a cumulative Grade Point Average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Meet the minimum English proficiency requirement

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

Bachelor of Science Program in Food Technology

Curriculum Structure

Total number of credits	123	Credits
A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
General Education Elective Courses	9	Credits
B. Specialized Courses	93	Credits
Core Courses	24	Credits
Major Required Courses	36	Credits
Major Elective Courses	33	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	24	Credits
General Education Required Courses	15	Credits
ELE 1001 Communicative English I		3(2-3-6)
ELE 1002 Communicative English II		3(2-3-6)
ELE 2000 Academic English		3(2-3-6)
ELE 2001 Advanced Academic English		3(2-3-6)
GE 2202 Ethics		3(3-0-6)
General Education Elective Courses	9	Credits
GE 1403 Thai Language for Professional Communication (For Thai Students)		3(3-0-6)
GE 1409 Thai Language for Intercultural Communication (For Non-Thai Students)		3(3-0-6)
GE 1410 Thai for Professional Communication (For Thai Students)		2(2-0-4)
GE 1411 Thai Language for Multicultural Communication (For Non-Thai Students)		2(2-0-4)
GE 1412 Introductory Thai Usage (For Thai Students from International Program)		2(2-0-4)
GE 1413 Introduction to Korean Language and K-pop Culture		3(3-0-6)
GE 1414 Introduction to Spanish Language and Culture		3(3-0-6)
GE 1415 Storytelling and Presentation Skills in English		3(3-0-6)
GE 3401 Public Speaking in Thai		3(3-0-6)
GE 1204 Physical Education		1(0-2-1)
GE 1205 ASEAN Ways		3(3-0-6)
GE 1209 Psychology Application in Daily Life		3(3-0-6)
GE 2207 Sport, Health and Wellness Development		3(3-0-6)
GE 2209 The Power of Personality in Leadership		3(3-0-6)
GE 2210 Love and Art of Living		3(3-0-6)
BBA 1004 Essential Marketing for Entrepreneurs		2(2-0-4)
BBA 1005 Essential Finance for Entrepreneurs		2(2-0-4)
BBA 1006 Essential Economics for Entrepreneurs		2(2-0-4)
ADX 1101 Art and Design Appreciation		3(3-0-6)
ADX 1240 Artist Studio (Painting and Rendering)		3(2-2-5)
ADX 1303 Design Communication		3(2-2-5)
ADX 1304 Design Fundamental		3(2-2-5)
BBA 1010 Design Thinking in Business		3(3-0-6)
BBA 1012 Entrepreneurial Marketing		3(3-0-6)
BBA 1020 Design Thinking Essentials		2(2-0-4)
BBA 1021 Design Thinking Workshop		1(1-0-2)
BBA 1022 Building CEO and Leadership Essentials		2(2-0-4)
BBA 1023 Building CEO and Leadership Workshop		1(1-0-2)
BBA 1024 Entrepreneurial Marketing Essentials		2(2-0-4)
BBA 1025 Entrepreneurial Marketing Workshop		1(1-0-2)

CA 1110	Art and Beauty of Living	3(2-2-5)
AD 3280	Inspiration, Lifestyles and Popular Culture	3(2-2-5)
EG 1001	Digital Literacy	3(3-0-6)
FT 1003	Food Factory Explore Trip (Special Course)	3(3-0-6)
FT 2004	Drinkology: The Art of drinking	3(3-0-6)
FT 2005	Food Zodiac	3(3-0-6)
GE 2212	Exotic Thai Food and Crafts	3(3-0-6)
GE 2213	Thai Market Vendor Exposure	3(3-0-6)
ITX 2004	UI/UX Design and Prototyping (For Non-Science Students)	3(3-0-6)
ITX 2005	Design Thinking (For Non-Science Students)	3(3-0-6)
ITX 4502	Tech Startup (For Non-Science Students)	3(3-0-6)
LLB 1501	Business Law (For Non-Law Students)	3(3-0-6)
LLB 1502	Fundamentals of Tax Law (For Non-Law Students)	3(3-0-6)
LLB 4540	International Business Law and Start-Up Business (For Non-Law Students)	3(3-0-6)
LLB 4806	Business and Human Rights (For Non-Law Students)	3(3-0-6)
MB 2531	Music Business	3(3-0-6)
NGE 0110	First Aid and Basic Life Support (For Non-Nursing Students)	3(3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior (For Non-Nursing Students)	3(3-0-6)
GE 1104	Thai Historical Perspectives	3(3-0-6)
GE 2102	Human Heritage and Globalization	3(3-0-6)
GE 2103	Art of Reasoning	3(3-0-6)
GE 2110	Human Civilizations and Global Citizens	2(2-0-4)
ADX 1102	Design Culture Exposure	2(0-4-4)
ADX 1140	Journey for Urban Art and Culture Exploration	3(3-0-6)
FT 2003A	Foods Changing the World (Part A)	2(2-0-4)
FT 2003B	Foods Changing the World (Part B)	1(1-0-2)
FT2003	Foods Changing the World	3(3-0-6)
GE 1107	Perspectives in Politics and Economy	3(3-0-6)
MU 1002	Pop Music Appreciation	3(3-0-6)
MU 1231	History and Literature of Music	3(3-0-6)
MU 3602	Music Therapy	3(3-0-6)
MU 4223	Music in Human Life	3(3-0-6)
GE 1302	Ecology and Sustainability	3(3-0-6)
GE 1303	Science for Sustainable Future	2(2-0-4)
GE 2304	Lifestyles and Sustainability in Dynamic World	3(3-0-6)
BBA 1007	Data Analytics for Entrepreneurs	3(2-2-5)
BBA 1013	Entrepreneurial Finance (For Non-MSME Students)	3(3-0-6)
BBA 1014	The Art of Data for Business	3(3-0-6)
BBA 1026	Entrepreneurial Finance Essentials (For Non-MSME Students)	2(2-0-4)
BBA 1027	Entrepreneurial Finance Workshop (For Non-MSME Students)	1(1-0-2)
BBA 1028	The Art of Data Essentials	2(2-1-4)
BBA 1029	The Art of Data Workshop	1(0-1-1)
CA 1201	Creative Photography	3(2-2-5)
CA 1202	Computer Graphic for Presentation Design for Pitching	3(2-2-5)
CSX 3001	Fundamentals of Computer Programming	3(3-0-6)
EG 1002	Application Design for Everyone Literacy	3(3-0-6)
EG 1003	Introduction to Internet of Things (IoTs) Literacy	3(3-0-6)
EG 1004	Artificial Intelligence for Beginners	3(3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3(3-0-6)
FT 1004A	Food-Agri-Bio Tech Trend Update (Part A)	2(2-0-4)
FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1(1-0-2)
FT 1005	Sustainability and Circular Living	3(3-0-6)

DM 3280	Digital Art in Data Visualization	3(2-2-5)
ITX 3002	Introduction to Information Technology	3(3-0-6)

B. Specialized Courses:

93 Credits

Core Courses

24 Credits

BS 1115	Basic Chemistry	3(2-3-5)
BS 1116	Basic Biology	3(2-3-5)
BS 1117	Basic Physics	3(2-3-5)
BS 2020	Basic Microbiology	3(2-3-5)
BS 2021	Basic Biochemistry	3(2-3-5)
BT 2012	Introduction to Food Biotechnology	3(3-0-6)
BT 3020	Design Thinking and Research Design	3(3-0-6)
BT 4001	Food Biotechnology World Trend	3(3-0-6)

Major Required Courses

36 Credits

FT 2006	Functional Food and Nutrition for Health	3(3-0-6)
FT 2007	Food Composition and Analysis	3(2-3-5)
FT 3115	Food Safety and Microbiology Technology	3(2-3-5)
FT 3117	Food Processing Innovations and Technologies	3(2-3-5)
FT 3118	Properties of Food and Engineering	3(2-3-5)
FT 4143	Food Quality and Regulation	3(2-3-5)
FT 4146	Food Product Design and Development	3(2-3-5)
FT 4147	Industrial Fermentation Innovation and Products	3(2-3-5)
FT 4148	Consumer Food Marketing	3(3-0-6)
FT 4149	Sensory Marketing and Consumer Behavior	3(3-0-6)
FT 4190	Special Project	3(0-9-4)
FT 4151	Internship for biotechnology students	3(0-9-4)

Major Elective Courses

33 Credits

Concentration in Food Technology

FT 1002	Calculus for Biotechnology	3(3-0-6)
FT 2001	Genetic Inheritance and Molecular Genetic in Food application	3(2-3-5)
FT 2002	Advance Chemistry	3(2-3-5)
FT 3119	Advance Food Physical and Chemistry	3(2-3-5)
FT 3120	Protein and Enzyme Technology	3(2-3-5)
FT 4144	Food Ingredients Functionality	3(3-0-6)
FT 4145	Packaging Design Innovation	3(3-0-6)
FT 4157	Advance Food Processing Innovations and Technologies	3(2-3-5)
FT 4161	Intelligent Food for the Future	3(3-0-6)
FT 4162	Bakery Technology and Entrepreneur Management	3(2-3-5)
FT 4163	Dairy and Plant-Based Dairy Alternatives Innovation	3(2-3-5)
FT 4164	Plant-Based Meat, Lab Grown and Meat Innovation	3(2-3-5)
FT 4166	Sweet n Bitter Sonata	3(2-3-5)
FT 4191	Field Trip	3(0-3-1)
FT 4301	Selected Topic I	3(3-0-6)
FT 4302	Selected Topic II	3(2-3-5)
FT 4303	Selected Topic III	3(3-0-6)
FT 4304	Selected Topic IV	3(2-3-5)
FT 4305	Selected Topic V	3(3-0-6)
FT 4306	Selected Topic VI	3(2-3-5)
FT 4152	Bioinformatics for Food Technology	3(3-0-6)
FT 4153	Integrated IOT to Smart and Green Food Industry	3(3-0-6)
FT 4154	Intelligent Packaging Technology	3(3-0-6)
FTC 4001	Discover the Circular Economy	3(3-0-6)
FTC 4003	Sustainable Food Security	3(3-0-6)
FTC 4004	Scents and Sense Symphony	3(2-3-5)
FTC 4005	Food Communication	3(3-0-6)

FTC 4006	Analysis and Insight of Food Business	3(3-0-6)
FTC 4009	Molecular Gastronomy	3(2-3-5)
ITX 2009	Presentation and Data Visualization Techniques	3(3-0-6)
Concentration in Food Biotechnology		
FBT 4002	Molecular Genetic and Recombinant DNA Technology	3(2-3-5)
FBT 4003	Natural Antioxidant and Toxicology	3(2-3-5)
FBT 4004	Biopharmaceuticals	3(2-3-5)
FBT 4005	Nanomaterials for Life Science and Industrial Applications	3(3-0-6)

Students can take FT or FTC upon completion of the 33 credits requirement for major elective requirements.

Concentration in Food Technology Design and Entrepreneur		
BBA 1111	Business Essential: A Design Thinking Approach	3(3-0-6)
BBA 1121	Marketing in Practice	3(3-0-6)
BBA 1123	Navigating Global Business Environment	3(3-0-6)
BBA 2121	Consumer Behaviors and Insights	3(3-0-6)
BBA 2122	Operations and Sustainable Supply Chain Management	3(3-0-6)
BBA 2123	Essential Strategies for Sustainable Business	3(3-0-6)

Students can take FT or FTC upon completion of the 33 credits requirement for major elective requirements.

C. Free Elective Courses

6 Credits

FT 1001	Food Technology Exploration	3(3-0-6)
FT 4133	Introduction to Wine Appreciation	3(3-0-6)
FT 4155	Gastronomy Tourism	3(3-0-6)
FT 4158	Sweet and Bitter Tasty Café'	3(3-0-6)
FT 4165	Nutritional Therapy	3(3-0-6)
FBT 4008	Eco-Friendly Bioproducts	3(3-0-6)

Students can take free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any).

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3(2-3-6)
FT 1005	Sustainability and Circular Living	3(3-0-6)
BS 1115	Basic Chemistry	3(2-3-5)
BS 1116	Basic Biology	3(2-3-5)
BS 1117	Basic Physics	3(2-3-5)
Total 15 (11-12-27)		

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3(2-3-6)
BS 2020	Basic Microbiology	3(2-3-5)
BS 2021	Basic Biochemistry	3(2-3-5)
FT 2001	Genetic Inheritance and Molecular Genetic in Food application	3(2-3-5)
FT 2002	Advance Chemistry	3(2-3-5)
Total 15 (10-15-26)		

Second Year

First Semester

Course Code	Course Title	Credits
ELE 2000	Academic English	3(2-3-6)
BT 2012	Introduction to Food Biotechnology	3(3-0-6)
FT 2006	Functional Food and Nutrition for Health	3(3-0-6)
FT 2007	Food Compositions and Analysis	3(2-3-5)

FT 3115	Food Safety and Microbiology Technology	3(2-3-5)
Second Semester	Total 15 (12-9-28)	
Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3(2-3-6)
FT 2003	Foods Changing the World	3(3-0-6)
FT 3118	Properties of Food and Engineering	3(2-3-5)
FT 3120	Protein and Enzyme Technology	3(2-3-5)
FT 4147	Industrial Fermentation Innovations and Products	3(2-3-5)
	Total 15 (11-12-27)	
Third Year		
First Semester		
Course Code	Course Title	Credits
GE 2202	Ethics	3(3-0-6)
FT1003	Food Factory Explore Trip (Special course)	3(3-0-6)
FT 3117	Food Processing Innovation and Technologies	3(2-3-5)
FT 4144	Food Ingredients Functionality	3(3-0-6)
FT xxxx	Major elective	3(x-x-x)
	Total 15 (x-x-x)	
Second Semester		
Course Code	Course Title	Credits
FT 4157	Advance Food Processing Innovations and Technologies	3(2-3-5)
FT 4161	Intelligent Food for the Future	3(3-0-6)
FT 4145	Packaging Design Innovation	3(3-0-6)
FT xxxx	Major elective	3(x-x-x)
XX xxxx	Free Elective	3(3-0-6)
	Total 15 (x-x-x)	
Summer Semester		
Course Code	Course Title	Credits
FT 4151	Internship for biotechnology students	3(0-9-4)
	Total 3 (0-9-4)	
Fourth Year		
First Semester		
Course Code	Course Title	Credits
BT 3020	Design Thinking & Research	3(3-0-6)
FT 4146	Food Product Design and Development	3(2-3-5)
FT 4149	Sensory Marketing and Consumer Behavior	3(3-0-6)
FT 4143	Food Quality and Regulations	3(2-3-5)
FT xxxx	Major elective	3(x-x-x)
	Total 15 (x-x-x)	
Second Semester		
Course Code	Course Title	Credits
BT 4001	Food Biotechnology World Trend	3(3-0-6)
FT 4148	Consumer Food Marketing	3(3-0-6)
FT 4190	Special Project	3(0-9-4)
FT 4191	Field Trip	3(3-0-6)
XX xxxx	Free Elective	3(3-0-6)
	Total 15 (x-x-x)	



THOMAS AQUINAS SCHOOL OF **LAW**





BACHELOR OF LAWS

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Laws upon students who meet all of the following requirements:

1. Complete all required courses and accumulate the total number of credits specified in the curriculum
2. Attain a cumulative grade point average (GPA) of 2.00 or better
3. Participate in 16 sessions of the Professional Ethics Seminar
4. Settle all accounts with the University Financial Office and the Librarian
5. Demonstrate a good behavior and self-discipline
6. Pass the English Proficiency test required by the University

OBJECTIVES OF CURRICULUM

1. To produce law graduates who demonstrate professional ethics, are of good moral character, have high integrity, uphold justice, and are socially responsible.
2. The graduates will acquire fundamental legal knowledge and an understanding of commercial law that will enable them to apply the laws appropriately.
3. The graduates will attain a high level of English proficiency
4. The graduates will be able to apply their legal knowledge to analyze and solve work-related problems appropriately and responsibly.
5. The graduates will be able to work with others, adapt to different work environments and socialize appropriately. They will demonstrate leadership and accountability. They will be capable of planning an ongoing process of learning and self-improvement.
6. The graduates will be able to use communications technology effectively.

Bachelor of Laws

Curriculum Structure

Total number of credits	132	Credits
A. General Education Courses	24	Credits
Language Courses	12	Credits
Social Sciences Courses	3	Credits
General Education Elective Courses	at least 9	Credits
B. Specialized Course (Law)	102	Credits
Part 1: Core Courses	90	Credits
Part 2: Specialized or Major Elective Courses	12	Credits
Part 3: Skill Supplement	-	Credits
C. Free Elective Courses	6	Credits

Courses

A. General Education Courses	24	Credits
Language Courses		
ELE 1001*	Communicative English 1	3 (2-3-6)
ELE 1002*	Communicative English 2	3 (2-3-6)
ELE 2000*	Academic English	3 (2-3-6)
ELE 2001*	Advanced Academic English	3 (2-3-6)
GE 1403	Thai for Profession Communication (For Thai students)	3 (3-0-6)
GE 1409	Language for Intercultural Communication (For International students)	3 (3-0-6)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)

Note: “*” indicates a required course.

Social Sciences Courses		
GE 2202*	Ethics	3 (3-0-6)
ADX 1101	Art and Design Appreciation	3 (0-6-3)
ADX 1240	Artist Studio (Painting and Rendering)	3 (1-4-4)
ADX 1303	Design Communication	3 (2-2-5)
ADX 1304	Design Fundamental	3 (2-2-5)
BBA 1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
BBA 1010	Design Thinking in Business	3 (3-0-6)
BBA1012	Entrepreneurial Marketing	3 (3-0-6)
BBA 1020	Design Thinking Essentials	2 (2-0-4)
BBA1021	Design Thinking Workshop	1 (1-0-2)
BBA1022	Building CEO and Leadership Essentials	2 (2-0-4)
BBA 1023	Building CEO and Leadership Workshop	1 (1-0-2)
BBA1024	Entrepreneurial Marketing Essentials	2 (2-0-4)
BBA 1025	Entrepreneurial Marketing Workshop	1 (1-0-2)
EG 1001	Digital Literacy	3 (3-0-6)
FT1003	Food Factory Explore Trip (Special course)	3 (3-0-6)
FT2004	The Art of drinking	3 (3-0-6)
FT2005	Food Zodiac	3 (3-0-6)
GE 1204	Physical Education	1 (0-2-1)
GE 1205	ASEAN Ways	3 (3-0-6)
GE 1209	Psychology Application in Daily Life	3 (3-0-6)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)

GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
LLB 1501	Business Law (for non-Law students)	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law (for non-Law students)	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business (English-Chinese Language)	3 (3-0-6)
LLB 4806	Business and Human Rights	3 (3-0-6)
MB 2531	Music Business	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior	3 (3-0-6)

Note: “*” indicates a required course.

Humanities Courses

ADX 1102	Design Culture Exposure	2 (1-4-4)
ADX1140	Journey for Urban Art and Culture Exploration	3 (3-0-6)
FT2003A	Foods Changing the World (Part A)	2 (2-0-4)
FT2003B	Foods Changing the World (Part B)	1 (1-0-2)
GE 1104	Thai Historical Perspectives	3 (3-0-6)
GE 1107	Perspectives in Politics and Economy	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)

Science and Mathematics Courses

BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
GE 1303	Science for Sustainable Future	2 (2-0-4)
BBA 1013	Entrepreneurial Finance	3 (3-0-6)
BBA 1014	The Art of Data for Business	3 (3-0-6)
BBA 1026	Entrepreneurial Finance Essentials	2 (2-0-4)
BBA 1027	Entrepreneurial Finance Workshop	1 (1-0-2)
BBA1028	The Art of Data Essentials	2 (2-1-4)
BBA 1029	The Art of Data Workshop	1 (0-1-1)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
EG 1002	Application Design for Everyone Literacy	3 (3-0-6)
EG 1003	Introduction to Internet of Things (IoTs) Literacy	3 (3-0-6)
EG1004	Artificial Intelligence for Beginners	3 (3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3 (3-0-6)
FT1004A	Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
FT1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
FT1005	Sustainability and Circular Living	3 (3-0-6)
GE 1302	Ecology and Sustainability	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)

B. Specialized Courses

102 Credits

Part 1: Core Courses

90 Credits

General Core Law Courses

LLB 1101	Jurisprudence and Law for Everyday Life	3 (3-0-6)
LLB 1102	Legal History	2 (2-0-4)
LLB 4103	Fundamental Principles of Human Rights,	2 (2-0-4)

	LLB 4104	Good Governance, Rule of Law and Ethics Philosophy of Law	2 (2-0-4)
Civil Law Courses			
	LLB 1201	Juristic Acts and Contracts Law	3 (3-0-6)
	LLB 1202	Property and Land Law	3 (3-0-6)
	LLB 2203	Law of Obligations	3 (3-0-6)
	LLB 2204	Law of Delict, Management of Affairs without Mandate, Undue Enrichment	3 (3-0-6)
	LLB 3204	Family Law	2 (2-0-4)
	LLB 3206	Succession Law	2 (2-0-4)
Criminal Law Courses			
	LLB 1301	Criminal Law I	3 (3-0-6)
	LLB 2302	Criminal Law II	3 (3-0-6)
Public Law Courses			
	LLB 1401	Principles of Public Law, Public Finance Law and Public Economic Law	3 (3-0-6)
	LLB 1402	Constitutional Law, Human Rights, and Political Institutions	3 (3-0-6)
	LLB 3403	Administrative Law	2 (2-0-4)
Commercial and Business Law Courses			
	LLB 2542	Specific Contracts I	3 (3-0-6)
	LLB 2502	Specific Contracts II	3 (3-0-6)
	LLB 2503	Insurance Law	2 (2-0-4)
	LLB 2504	Negotiable Instruments and Current Account Law	2 (2-0-4)
	LLB 3505	Secured Transactions Law	2 (2-0-4)
	LLB 3506	Law on Business Organizations	3 (3-0-6)
	LLB 3507	Bankruptcy Law and Rehabilitation	2 (2-0-4)
	LLB 4508	Tax Law and Law on Taxation in International Trade and Investment	3 (3-0-6)
	LLB 4509	International Business Transactions Law	2 (2-0-4)
	LLB 4510	Principles of Business Contract Drafting	2 (2-0-4)
	LLB 4511	Investment Law	3 (3-0-6)
Legal Procedure Courses			
	LLB 3601	Civil Procedure Law	3 (3-0-6)
	LLB 3602	Criminal Procedure Law	3 (3-0-6)
	LLB 3603	Judicial Process, Court system and Constitution of Courts of Justice	1 (1-0-2)
	LLB 3604	Evidence Law	2 (2-0-4)
	LLB 4605	Legal Counselling and Advocacy	2 (2-0-4)
International Law Courses			
	LLB 3701	Public International Law	2 (2-0-4)
	LLB 3702	Private International Law	3 (3-0-6)
Legal subjects related to social change, community development, or science and technology courses			
	LLB 4801	Labor Law	3 (3-0-6)
	LLB 4802	Law on Digital Technology	2 (2-0-4)
	LLB 4803	Law on Finance and Financial Institutions	2 (2-0-4)
	LLB 4804	Law on Personal Data Protection	2 (2-0-4)
Part 2 Specialized or Elective Law Courses not less than 12 Credits			
Divided into two group : 2.1 Specific Elective Courses and 2.2 General Elective Courses.			
Specific Elective Courses			
Courses in Business Law			
Information Technology and Intellectual Property Management			12 Credits
	LLB 4512	Intellectual Property Law	3 (3-0-6)
	LLB 4513	Innovation and Technology	3 (3-0-6)
	LLB 4514	Intellectual Property Law and Practice	3 (3-0-6)
	LLB 4515	Seminar on Intellectual Property Law,	3 (3-0-6)

Information Technology, and Entrepreneurship		12	Credits
Logistics and Law			
LLB 4516	Supply Chain and Logistics Management Fundamentals		3 (3-0-6)
LLB 4517	Custom Clearance and Tax in Logistics Management		3 (3-0-6)
LLB 4518	Law on Transportation and Insurance in Logistics Management		3 (3-0-6)
LLB 4519	Seminar on Supply Chain, Logistics, Transportation and Warehouse Management		3 (3-0-6)
Real Estate Business and Law		12	Credits
LLB 4520	Principles of Real Estate Business and Legal Aspects of Real Estate Business		3 (3-0-6)
LLB 4521	Building Design and Construction Techniques		3 (3-0-6)
LLB 4522	Real Estate Development		3 (3-0-6)
LLB 4523	Real Estate Finance and Appraisal		3 (3-0-6)
Courses in Legal Professions within the Justice Process		12	Credits
LLB 4207	Advanced Civil Law		3 (3-0-6)
LLB 4304	Advanced Criminal Law		3 (3-0-6)
LLB 4606	Advanced Civil Procedure Law		3 (3-0-6)
LLB 4607	Advanced Criminal Procedure Law		3 (3-0-6)
General Elective Courses		12	Credits
Core General Courses in Law			
LLB 4105	Juristic Methods		3 (3-0-6)
LLB 4106	Major Legal Systems in the World		3 (3-0-6)
Courses in Civil Law			
LLB 4206	Significant Problems in Civil Law		3 (3-0-6)
LLB 4207	Advanced Civil Law		3 (3-0-6)
Courses in Criminal Law			
LLB 4303	Significant Problems in Criminal Law		3 (3-0-6)
LLB 4304	Advanced Criminal Law		3 (3-0-6)
Courses in Public Law			
LLB 4404	Significant Problems in Public Law		3 (3-0-6)
LLB 4405	Law Drafting and Legislative Process		3 (3-0-6)
LLB 4406	Natural Resources Law		3 (3-0-6)
LLB 4407	Consumer Protection Law		3 (3-0-6)
LLB 4408	Mass Communication and Social Media Law		3 (3-0-6)
LLB 4409	Energy and Petroleum Law		3 (3-0-6)
LLB 4410	Medical, Public Health, and Health Law		3 (3-0-6)
LLB 4411	Law on Food and Drug Business		3 (3-0-6)
Courses in Commercial and Business Law			
LLB 4512	Intellectual Property Law		3 (3-0-6)
LLB 4513	Innovation and Technology		3 (3-0-6)
LLB 4514	Intellectual Property Law and Practice		3 (3-0-6)
LLB 4515	Seminar on Intellectual Property Law, Information Technology, and Entrepreneurship		3 (3-0-6)
LLB 4516	Supply Chain and Logistics Management Fundamentals		3 (3-0-6)
LLB 4517	Custom Clearance and Tax in Logistics Management		3 (3-0-6)
LLB 4518	Law on Transportation and Insurance in Logistics Management		3 (3-0-6)
LLB 4519	Seminar on Supply Chain, Logistics, Transportation and Warehouse Management		3 (3-0-6)
LLB 4520	Principles of Real Estate Business and Legal Aspects of Real Estate Business		3 (3-0-6)
LLB 4521	Building Design and Construction Techniques		3 (3-0-6)

	LLB 4522	Real Estate Development	3 (3-0-6)
	LLB 4523	Real Estate Finance and Appraisal	3 (3-0-6)
	LLB 4524	Principles of Economics for Lawyers	3 (3-0-6)
	LLB 4525	Principles of Accounting and Financial Reports for Lawyers	3 (3-0-6)
	LLB 4526	Securities and Securities Exchange Law	3 (3-0-6)
	LLB 4527	International Economic Law	3 (3-0-6)
	LLB 4528	Arbitration Law	3 (3-0-6)
	LLB 4529	Carriage of Goods by Sea Law	3 (3-0-6)
	LLB 4530	Customs Law	3 (3-0-6)
	LLB 4531	Industrial Law	3 (3-0-6)
	LLB 4532	Principles of Real Estate Business and Law on Real Estate Business	3 (3-0-6)
	LLB 4533	Competition Law	3 (3-0-6)
	LLB 4534	Significant Problems in Tax Law	3 (3-0-6)
	LLB 4535	Significant Problems in Business Law	3 (3-0-6)
	LLB 4536	Law on Sport Business	3 (3-0-6)
	LLB 4537	Significant Problems in Intellectual Property Law	3 (3-0-6)
	LLB 4538	Law on Entertainment and Fashion Business	3 (3-0-6)
	LLB 4539	International Financial and Banking Law	3 (3-0-6)
	LLB 4540	International Business Law and Start-Up Business (English-Chinese Language)	3 (3-0-6)
	LLB 4541	Trust Law for Assets Management and Investment	3 (3-0-6)
Courses in Procedural Law			
	LLB 4606	Advanced Civil Procedure Law	3 (3-0-6)
	LLB 4607	Advanced Criminal Procedure Law	3 (3-0-6)
	LLB 4608	Significant Problems in Civil Procedure Law	3 (3-0-6)
	LLB 4609	Significant Problems in Criminal Procedure Law	3 (3-0-6)
	LLB 4610	Criminology and Penology	3 (3-0-6)
	LLB 4611	Science, Technology and Criminal Investigation	3 (3-0-6)
	LLB 4612	Law on Juvenile and Family Court and Procedure	3 (3-0-6)
	LLB 4613	Human Rights in Judicial Procedure	3 (3-0-6)
Courses in International Law			
	LLB 4703	Law of the Sea	3 (3-0-6)
	LLB 4704	International Organization Law	3 (3-0-6)
	LLB 4705	European Union Law	3 (3-0-6)
	LLB 4706	Introduction to Air Law and Space Law	3 (3-0-6)
	LLB 4707	ASEAN Law	3 (3-0-6)
	LLB 4708	Seminar on ASEAN Law	3 (3-0-6)
	LLB 4709	Seminar on International Law	3 (3-0-6)
Courses in Law Related to Social Change, Community Development, or Science and Technology			
	LLB 4805	Legal Research and Legal Research Methodology	3 (3-0-6)
	LLB 4806	Business and Human Rights	3 (3-0-6)
	LLB 4807	Law on Digital Economy and Startup Business	3 (3-0-6)
	LLB 4811	Environment, Social, Governance (ESG) and Sustainability	3 (3-0-6)
	LLB 4809	Human Rights Law	3 (3-0-6)
	LLB 4810	Environmental Law	3 (3-0-6)
Part 3: Skill Enhancement			0 Credits
	LLB 1001	Analytical Thinking Skills and Legal Writing Development	0 (2-0-4)
	LLB 4001	Legal Document Translation	0 (2-0-4)
	LLB 4002	Interpretation in the Justice Process	0 (2-0-4)

C. Free Elective Courses**at least 6 Credits**

Students must choose from specialized course electives or courses offered by various faculties at Assumption University, totaling not less than 6 credits. Prerequisites (if any) must be completed first, and registration for law courses designated for other faculties is prohibited.

Study Plan**First Year****First Semester**

Course Code	Course Title	Credits
ELE 1001	Communicative English 1	3 (2-3-6)
LLB 1001	Analytical Thinking Skills and Legal Writing	0 (2-0-4)
LLB 1101	Jurisprudence and Law for Everyday Life	3 (3-0-6)
LLB 1102	Legal History	2 (2-0-4)
LLB 1401	Principles Of Public Law, Public Finance Law and Public Economics Law	3 (3-0-6)
	General Education courses	at least 6 Credits
Total	17 (18-3-38)	

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English 2	3 (2-3-6)
GE 2202	Ethics	3 (3-0-6)
LLB 1201	Juristic Acts and Contracts Law	3 (3-0-6)
LLB 1202	Property and Land Law	3 (3-0-6)
LLB 1301	Criminal Law I	3 (3-0-6)
LLB 1402	Constitutional Law, Human Rights, and Political Institutions	3 (3-0-6)
	General Education courses	at least 3 Credits
Total	21 (20-3-42)	

Summer Semester

During the summer term, students may register for no more than 6 credits unless approved by the Dean.

Second year**First Semester**

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
LLB 2203	Law of Obligations	3 (3-0-6)
LLB 2204	Law of Delict, Management of Affairs without Mandate, Undue Enrichment	3 (3-0-6)
LLB 2302	Criminal Law II	3 (3-0-6)
LLB 2542	Specific Contracts I	3 (3-0-6)
LLB 3204	Insurance Law	2 (2-0-4)
LLB 2504	Negotiable Instruments and Current Account Law	2 (2-0-4)
Total	19 (18-3-38)	

Second Semester

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
LLB 2502	Specific Contracts II	3 (3-0-6)
LLB 3204	Family Law	2 (2-0-4)
LLB 3403	Administrative Law	2 (2-0-4)
LLB 3505	Secured Transactions Law	2 (2-0-4)
LLB 3601	Civil Procedure Law	3 (3-0-6)

Free Elective courses at least 3 Credits
Total 18 (17-3-36)

Summer Semester

During the summer term, students may register for no more than 6 credits unless approved by the Dean.

Third year

First Semester

Course Code	Course Title	Credits
LLB 3206	Succession Law	2 (2-0-4)
LLB 3506	Law on Business Organizations	3 (3-0-6)
LLB 3507	Bankruptcy Law and Rehabilitation	2 (2-0-4)
LLB 3602	Criminal Procedure Law	3 (3-0-6)
LLB 3603	Judicial Process, Court system and Constitution of Courts of Justice	1 (1-0-2)
LLB 3701	Public International Law	2 (2-0-4)
	Free Elective courses	at least 3 Credits
Total 16 (16-0-32)		

Second Semester

Course Code	Course Title	Credits
LLB 3604	Evidence Law	2 (2-0-4)
LLB 3702	Private International Law	3 (3-0-6)
LLB 4103	Fundamental Principles Of Human Rights, Good Governance, Rule of Law And Ethics	2 (2-0-4)
LLB 4104	Philosophy Of Law	2 (2-0-4)
LLB 4605	Counselling And Advocacy	2 (2-0-4)
LLB 4802	Law on Digital Technology	2 (2-0-4)
LLB 4804	Law on Personal Data Protection	2 (2-0-4)
LLB 4001	Legal Document Translation	0 (2-0-4)
Total 15 (17-0-34)		

Summer Semester

During the summer term, students may register for no more than 6 credits unless approved by the Dean.

Fourth Year

First Semester

Course Code	Course Title	Credits
LLB 4002	Interpretation in the Justice Process	0 (2-0-4)
LLB 4508	Tax Law and Law on Taxation in International Trade and Investment	3 (3-0-6)
LLB 4509	International Business Transactions Law	2 (2-0-4)
LLB 4510	Principles of Business Contract Drafting	2 (2-0-4)
LLB 4511	Investment Law	2 (2-0-4)
LLB 4801	Labor Law	3 (3-0-6)
LLB 4803	Law on Finance and Financial Institutions	2 (2-0-4)
Total 14 (16-0-32)		

Second Semester

Elective Specialized Subjects: Choose 1 group from the following, totaling 12 Credits OR
 General Elective Subjects: Choose 4 courses available for registration, totaling 12 Credits

1. Business Law Group

1.1 Information Technology and Intellectual Property Management

Course Code	Course Title	Credits
LLB 4512	Intellectual Property Law	3 (3-0-6)
LLB 4513	Innovation and Technology	3 (3-0-6)
LLB 4514	Intellectual Property Law and Practice	3 (3-0-6)
LLB 4515	Seminar on Intellectual Property Law, Information Technology and Entrepreneurship	3 (3-0-6)

Total 12 (12-0-24)

1.2 Logistics and Law

Course Code	Course Title	Credits
LLB 4516	Supply Chain and Logistics Management Fundamentals	3 (3-0-6)
LLB 4517	Custom Clearance and Tax in Logistics Management	3 (3-0-6)
LLB 4518	Law on Transportation and Insurance in Logistics Management	3 (3-0-6)
LLB 4519	Seminar on Supply Chain, Logistics, Transportation and Warehouse Management	3 (3-0-6)

Total 12 (12-0-24)

1.3 Real Estate Business and Law

Course Code	Course Title	Credits
LLB 4520	Principles of Real Estate Business and Legal Aspects of Real Estate Business	3 (3-0-6)
LLB 4521	Building Design and Construction Techniques	3 (3-0-6)
LLB 4522	Real Estate Development	3 (3-0-6)
LLB 4523	Real Estate Finance and Appraisal	3 (3-0-6)

Total 12 (12-0-24)

2. Legal Professions in the Justice Process Group

Course Code	Course Title	Credits
LLB 4207	Advanced Civil Law	3 (3-0-6)
LLB 4304	Advanced Criminal Law	3 (3-0-6)
LLB 4606	Advanced Civil Procedure Law	3 (3-0-6)
LLB 4607	Advanced Criminal Procedure Law	3 (3-0-6)

Total 12 (12-0-24)

Summer Semester

During the summer term, students may register for no more than 6 credits unless approved by the Dean.



BERNADETTE DE LOURDES SCHOOL OF NURSING SCIENCE





BACHELOR OF NURSING SCIENCE

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Nursing Science to students who meet all of the following requirements:

1. Have completed the total number of credits of the curriculum
2. Have obtained a cumulative grade point average (GPA) of at least 2.00 (from 4.00 system)
3. Have obtained GPA not lower than 2.00 out of 4.00 in all professional courses
4. Have participated in 16 sessions of the Professional Ethics Seminar
5. Have demonstrated good behavior, conduct and obtain disciplinary scores not lower than 70%
6. Have obtained library and financial clearance from the University
7. Have ability to communicate in English according to the requirement of the University

OBJECTIVES OF CURRICULUM

The BLNS sets up the objectives of the curriculum to produce nursing graduates who have the desirable characteristics as follows:

1. Exercise leadership, moral and ethical mind in daily life, and provide nursing care with kindness and professional ethics
2. Demonstrate maturity in all aspects, assertiveness and social accountability
3. Have knowledge in nursing science and related sciences, and be able to apply them in nursing practice by demonstrating professionalism and good management
4. Have ability and skills in nursing informatics, numerical and statistics analyses
5. Use critical thinking skills in problem solving and utilize the scientific process in conducting research and innovations
6. Be able to establish interpersonal relationships and effectively collaborate among health care team
7. Be able to communicate in English with clients and health care team effectively and aware of cultural diversity and sensitivity
8. Perform nursing practice with client safety mindset, caring, and compassionate attitude according to the role and scope of the profession and conform with the professional code of ethics using holistic health services and client-centered approaches
9. Demonstrate confidence, faith and good attitude toward nursing profession and perform self development for the professional growth

Bachelor of Nursing Science Program

Curriculum Structure

Total number of credits		136	Credits
A. General Education Courses		30	Credits
Social Science Courses		9	Credits
Humanities Courses		2	Credits
Language Courses		14	Credits
Science and Mathematics Courses		5	Credits
B. Specialized Courses		100	Credits
Basic Professional Courses and Professional Courses (Theory)		64	Credits
Professional Courses (Practicum)		36	Credits
C. Free Elective Courses		6	Credits
Courses			
A. General Education Courses		30	Credits
Language Courses		15	Credits
ELE 1001	Communicative English I	3	(2-3-6)
ELE 1002	Communicative English II	3	(2-3-6)
ELE 2000	Academic English	3	(2-3-6)
ELE 2001	Advanced Academic English	3	(2-3-6)
Choose one of the following Thai Language and Communication courses based on the course pre-requisite:			
GE 1410	Thai for Professional Communication (for Thai students)	2	(2-0-4)
GE 1411	Thai Language for Multicultural Communication (for non-Thai students)	2	(2-0-4)
GE 1412	Introductory Thai Usage (for Thai students from International School)	2	(2-0-4)
Social Science Courses		9	Credits
GE 2202	Ethics	3	(3-0-6)
BBA 1004	Essential Marketing for Entrepreneurs	2	(2-0-4)
BBA 1005	Essential Finance for Entrepreneurs	2	(2-0-4)
BBA 1006	Essential Economics for Entrepreneurs	2	(2-0-4)
Humanities Courses		2	Credits
GE 2110	Human Civilization and Global Citizen	2	(2-0-4)
Science and Mathematics Courses		5	Credits
GE 1303	Science for Sustainable Future	2	(2-0-4)
BBA 1007	Data Analytics for Entrepreneurs	3	(3-0-6)
B. Specialized Courses		100	Credits
Basic Professional Courses		24	Credits
NUR 1101	Biochemistry	2	(2-0-4)
NUR 1102	Introduction to Nursing and Design Thinking	2	(2-0-4)
NUR 1103	Psychology and Mental Health	3	(3-0-6)
NUR 1104	Healthcare in the Digital Era	2	(1-2-3)
NUR 1105	Anatomy and Physiology	5	(4-2-9)
NUR 2101	Microbiology and Parasitology	2	(1-2-3)
NUR 2102	Pathophysiology	2	(2-0-4)
NUR 2103	Pharmacology	3	(3-0-6)
NUR 2104	Nutrition for Health and Wellbeing	1	(1-0-2)
NUR 2105	Entrepreneurship and Innovation	2	(2-0-4)
Professional Courses		76	Credits
Theory		40	Credits
NUS 1201	Health and Wellness Promotion through the Lifespan	2	(2-0-4)
NUS 2201	Scientific Nursing Approach and Holistic Health Assessment	2	(1-2-3)
NUS 2202	Foundation of Professional Nursing	4	(2-4-6)

	NUS 2203	Alteration in Adult Health and Nursing I	2 (2-0-4)
	NUS 2204	Infant, Child, and Adolescent Nursing I	2 (2-0-4)
	NUS 2205	Childbearing and Family Nursing I	3 (3-0-6)
	NUS 3201	Research and Evidence Informed Nursing Practice	2 (1-2-3)
	NUS 3202	Alteration in Adult Health and Nursing II	2 (2-0-4)
	NUS 3203	Emergency Nursing	1 (1-0-2)
	NUS 3204	Infant, Child, and Adolescent Nursing II	2 (2-0-4)
	NUS 3205	Gerontology Nursing	2 (2-0-4)
	NUS 3206	Community Focused Nursing	4 (4-0-8)
	NUS 3207	Bio-Behavioral-Psychiatric Nursing	2 (2-0-4)
	NUS 3208	Childbearing and Family Nursing II	3 (3-0-6)
	NUS 4201	Therapeutic Health Assessment	2 (2-0-4)
	NUS 4202	Leadership and Entrepreneurship in Nursing and Interprofessional Practice	2 (2-0-4)
	NUS 4203	Contemporary Issues in Healthcare Ethics and Law	2 (2-0-4)
	NUS 4204	Trends and Challenges in Nursing and Healthcare Forum	1 (1-0-2)
Practicum			36 Credits
	NUS 2301	Clinical Practicum for Professional Nursing Foundation	2 (0-6-2)
	NUS 2302	Infant, Child, and Adolescent Nursing Practicum I	2 (0-6-2)
	NUS 3301	Clinical Practicum in Adult Health Nursing I	3 (0-9-3)
	NUS 3302	Childbearing and Family Nursing Practicum I	4 (0-12-4)
	NUS 3303	Infant, Child, and Adolescent Nursing Practicum II	3 (0-9-3)
	NUS 3304	Clinical Practicum in Adult Health Nursing II	3 (0-9-3)
	NUS 3305	Gerontology Nursing Practicum	2 (0-6-2)
	NUS 3306	Mental Health and Psychiatric Nursing Practicum	3 (0-9-3)
	NUS 4301	Childbearing and Family Nursing Practicum II	3 (0-9-3)
	NUS 4302	Community Focused Nursing Practicum	3 (0-9-3)
	NUS 4303	Leadership and Healthcare Entrepreneurial Experience	3 (0-9-3)
	NUS 4304	Therapeutic Health Assessment Practicum	2 (0-6-2)
	NUS 4305	Integrative Nursing Practicum in a Focused Area	3 (0-9-3)

C. Free Elective Courses 6 Credits

Students can take free elective courses of 6 credits from any available program in Assumption University upon completion of the prerequisites (if any). The Bernadette de Lourdes School of Nursing Science has also offered the free elective courses as follows:

NUE 1401	Professional Etiquette and Personality Development	3 (3-0-6)
NUE 1402	Health and Wellness Development	3 (3-0-6)

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
BBA 1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
GE 1303	Science for Sustainable Future	2 (2-0-4)
NUR 1101	Biochemistry	2 (2-0-4)
NUR 1102	Introduction to Nursing and Design Thinking	2 (2-0-4)
NUR 1103	Psychology and Mental Health	3 (3-0-6)
Total		16 (15-3-32)

Second Semester

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)

	GE XXXX	Choose one of the Thai Language and Communication Courses	2 (2-0-4)
	NUR 1104	Healthcare in the Digital Era	2 (1-2-3)
	NUS 1201	Health and Wellness Promotion through the Lifespan	2 (2-0-4)
		Free Elective	3 (3-0-6)
	Total	17 (14-7-32)	
Summer Semester			
	Course Code	Course Title	Credits
	NUR 1105	Anatomy and Physiology	5 (4-2-9)
	Total	5 (4-2-9)	
Second Year			
First Semester			
	Course Code	Course Title	Credits
	ELE 2000	Academic English	3 (2-3-6)
	NUR 2101	Microbiology and Parasitology	2 (1-2-3)
	NUR 2102	Pathophysiology	2 (2-0-4)
	NUR 2103	Pharmacology	3 (3-0-6)
	NUR 2104	Nutrition for Health and Wellbeing	1 (1-0-2)
	NUS 2201	Scientific Nursing Approach and Holistic Health Assessment	2 (1-2-3)
	NUS 2202	Foundation of Professional Nursing	4 (2-4-6)
	Total	17 (12-11-30)	
Second Semester			
	Course Code	Course Title	Credits
	ELE 2001	Advanced Academic English	3 (2-3-6)
	GE 2110	Human Civilization and Global Citizen	2 (2-0-4)
	GE 2202	Ethics	3 (3-0-6)
	NUR 2105	Entrepreneurship and Innovation	2 (2-0-4)
	NUS 2203	Alteration in Adult Health and Nursing I	2 (2-0-4)
	NUS 2204	Infant, Child, and Adolescent Nursing I	2 (2-0-4)
	NUS 2301	Clinical Practicum for Professional Nursing Foundation	2 (0-6-2)
	Total	16 (12-9-30)	
Summer Semester			
	Course Code	Course Title	Credits
	NUS 2205	Childbearing and Family Nursing I	3 (3-0-6)
	NUS 2302	Infant, Child, and Adolescent Nursing Practicum I	2 (0-6-2)
	Total	5 (3-6-8)	
Third Year			
First Semester			
	Course Code	Course Title	Credits
	NUS 3201	Research and Evidence Informed Nursing Practice	2 (1-2-3)
	NUS 3202	Alteration in Adult Health and Nursing II	2 (2-0-4)
	NUS 3203	Emergency Nursing	1 (1-0-2)
	NUS 3204	Infant, Child, and Adolescent Nursing II	2 (2-0-4)
	NUS 3205	Gerontology Nursing	2 (2-0-4)
	NUS 3301	Clinical Practicum in Adult Health Nursing I	3 (0-9-3)
	NUS 3302	Childbearing and Family Nursing Practicum I	4 (0-12-4)
	Total	16 (8-23-24)	
Second Semester			
	Course Code	Course Title	Credits
	NUS 3206	Community Focused Nursing	4 (4-0-8)
	NUS 3207	Bio-Behavioral-Psychiatric Nursing	2 (2-0-4)
	NUS 3208	Childbearing and Family Nursing II	3 (3-0-6)
	NUS 3303	Infant, Child, and Adolescent Nursing	

	NUS 3304	Practicum II	3 (0-9-3)
	NUS 3305	Clinical Practicum in Adult Health Nursing II	3 (0-9-3)
		Gerontology Nursing Practicum	2 (0-6-2)
Summer Semester		Total	17 (9-24-26)
	Course Code	Course Title	Credits
	NUS 3306	Mental Health and Psychiatric Nursing Practicum	3 (0-9-3)
		Total	3 (0-9-3)
Fourth Year			
First Semester			
	Course Code	Course Title	Credits
	NUS 4201	Therapeutic Health Assessment	2 (2-0-4)
	NUS 4202	Leadership and Entrepreneurship in Nursing and Interprofessional Practice	2 (2-0-4)
	NUS 4301	Childbearing and Family Nursing Practicum II	3 (0-9-3)
	NUS 4302	Community Focused Nursing Practicum	3 (0-9-3)
		Free Elective	3 (3-0-6)
		Total	12 (7-18-20)
Second Semester			
	Course Code	Course Title	Credits
	NUS 4203	Contemporary Issues in Healthcare Ethics & Law	2 (2-0-4)
	NUS 4204	Trends and Challenges in Nursing and Healthcare Forum	1 (1-0-2)
	NUS 4303	Leadership and Healthcare Entrepreneurial Experience Practicum	3 (0-9-3)
	NUS 4304	Therapeutic Health Assessment Practicum	2 (0-6-2)
	NUS 4305	Integrative Nursing Practicum in a Focused Area	3 (0-9-3)
		Total	11 (3-24-14)



BACHELOR OF SCIENCE

PROGRAM IN HEALTH, WELLNESS AND TECHNOLOGY

GRADUATION REQUIREMENTS

Assumption University confers the degree of Bachelor of Science Program in Health, Wellness and Technology upon students who meet all of the following requirements:

- Have completed the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Have to meet the minimum English Proficiency requirement specified in one of the following criteria
- Have obtained a satisfactory pass in MSME assessment tests, eg. basic business knowledge and entrepreneurial skills.

Test Instruments	Required Passing Score
AU English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 of Common European Framework of Reference for Language (CEFR)

OBJECTIVES OF CURRICULUM

To produce graduates who have the characteristics, knowledge and skills as follows:

- 1) Morally sound, committed to acting justly and open to further growth.
- 2) Have knowledge of accounting principles, possess analytical tools and practical knowledge and skills to make sound accounting decisions.
- 3) Flexible, competent and well-rounded in confronting and solving accounting, financing, and related business problems.
- 4) Able to apply accounting principles in the practice of their profession.
- 5) Able to work as a team and motivate others to work.
- 6) Have positive attitude towards the accounting professions, interpersonal, calculation, analytical, communication and presentation skills, and IT skills.

Bachelor of Science Program In Health, Wellness, and Technology

Curriculum Structure

Total Number of credits	124	Credits
A. General Education Courses	24	Credits
Compulsory Courses	15	Credits
Foundational Elective Courses	9	Credits
B. Specialized Courses	94	Credits
Core Courses	46	Credits
Major-Required Courses	30	Credits
Professional Elective Courses	18	Credits
C. Free Elective Courses	6	Credits

Course

A. General Education Courses	24	Credits
Compulsory Courses	15	Credits
NGH 1001	English for Effective Communication	3 (2-3-6)
NGH 1002	English for Health and Wellness Professionals	3 (2-3-6)
NGH 2001	Integrated English Skills	3 (2-3-6)
NGH 1003	Equality, Diversity, and Inclusion	3 (3-0-6)
NGH 1004	Psychology and Mental Well-being in Modern Society	3 (3-0-6)
Foundational Elective Courses	9	Credits
Choose any three courses from the list:		
NGH 1101	The Science of Happiness and Well-Being	3 (3-0-6)
NGH 1102	Cultural Perspectives in Health and Wellness	3 (3-0-6)
NGH 2101	Fitness, Exercise, and Longevity	3 (3-0-6)
NGH 2102	Technology and Innovation in Healthcare	3 (3-0-6)
NGH 2103	Health and Wellness Through the Arts	3 (3-0-6)
B. Specialized Courses	94	Credits
Core Courses	46	Credits
NSC 1201	Dimensions of Health, Wellness, and Resilience	3 (3-0-6)
NSC 1202	Global Health and Wellness Trends	3 (3-0-6)
NSC 1203	Human Anatomy and Physiology	3 (2-2-5)
NSC 1204	Principles of Disease Prevention and Health Promotion	3 (3-0-6)
NSC 1205	Sociology of Health and Wellness	3 (3-0-6)
NSC 1206	Introduction to Health Literacy	3 (3-0-6)
NSC 1207	Seminar in Integrative Health and Wellness I	1 (1-0-2)
NSC 2201	Nutrition and Lifestyle Management	3 (3-0-6)
NSC 2202	Intercultural Awareness and Competency	3 (3-0-6)
NSC 2203	Integrative and Complementary Health Approaches	3 (3-0-6)
NSC 2204	Design Thinking in Health and Wellness	3 (3-0-6)
NSC 2205	Public Health and Community Care	3 (3-0-6)
NSC 2206	Health Policy and Global Health Systems	3 (3-0-6)
NSC 2207	Introduction to Evidence-Based Strategies to Optimize Health, Happiness and Well-being	3 (3-0-6)
NSC 3201	Law and Ethics in Health and Wellness	3 (3-0-6)
NSC 3202	Leadership and Healthcare Management	3 (3-0-6)
NSC 3203	Workshop I	Non-credit
NSC 3204	Workshop II	Non-credit
NSC 4201	Internship in Health, Wellness, and Technology Industry	0 (240 hrs)

Major-Required Courses 30 Credits
Major: Integrated Care for Aging Populations (focused on gerontology, senior care, and long-term health solutions)

NSC 1301	Seminar in Integrative Health and Wellness II	1 (1-0-2)
NSC 2301	Seminar in Integrative Health and Wellness III	1 (1-0-2)
NSC 2302	Seminar in Integrative Health and Wellness IV	1 (1-0-2)
NSC 2303	Science of Aging: Health, Longevity and Vitality Personalized	3 (3-0-6)
NSC 2304	Comprehensive Geriatric Assessment and Care Planning	3 (2-2-5)
NSC 3301	Functional Nutrition for Healthy Aging and Longevity	3 (3-0-6)
NSC 3302	Rehabilitation and Active Aging: Restoring Mobility and Independence	3 (2-2-5)
NSC 3303	Brain Health, Cognitive Wellness, and Dementia Prevention	3 (2-2-5)
NSC 3304	Chronic Disease Management and Lifestyle Medicine in Older Adults	3 (2-2-5)
NSC 4301	Empowering Caregivers: Family Support and Aging Well Strategies	3 (3-0-6)
NSC 4302	Assistive Technologies and Smart Living for Seniors	3 (2-2-5)
NSC 4303	Compassionate Care: Palliative, Hospice and End-of-Life Management	3 (2-2-5)

Major: Health Technology and Innovation

This major offer flexibility by allowing students to select up to 15 credits (equivalent to 5 courses), in addition to the five major required courses (15 credits) listed below. Students can choose from a diverse range of technology and innovation-related courses, including the possibility of transferring credits earned from other accredited institutions. This feature facilitates a seamless transition for students who wish to transfer credits, thereby optimizing their educational investment.

NSC 1301	Seminar in Integrative Health and Wellness II	1 (1-0-2)
NSC 2301	Seminar in Integrative Health and Wellness III	1 (1-0-2)
NSC 2302	Seminar in Integrative Health and Wellness IV	1 (1-0-2)
NSC 2305	Cybersecurity and Data Privacy in Healthcare	3 (3-0-6)
NSC 3305	Smart Hospitals and Healthcare Automation	3 (2-2-5)
NSC 3306	Human-Centered Design and UX in Digital Health	3 (3-0-6)
NSC 3307	Blockchain and Emerging Technologies in Healthcare	3 (3-0-6)

Professional Elective Courses 18 Credits

Choose 6 courses from the list below:

NSC 3401	Wellness Coaching and Behavior Change	3 (3-0-6)
NSC 3402	Business and Entrepreneurship in Wellness	3 (3-0-6)
NSC 3403	Healing Environments and Sustainable Health Practices	3 (3-0-6)
NSC 3404	Culinary Medicine for Aging Populations	3 (3-0-6)
NSC 3405	Digital Therapeutics and Mobile Health Applications	3 (2-2-5)
NSC 4401	Mind-Body and Behavioral Health	3 (3-0-6)
NSC 4402	Sports and Recreation for Health and Wellness	3 (3-0-6)
NSC 4403	Neuroscience and Aging	3 (2-2-5)
NSC 4404	Eco-Medical Tourism and Global Wellness	3 (3-0-6)
NSC 4405	Biohacking and Personal Health Optimization	3 (3-0-6)
NSC 4406- 4415	Selected Topic in Aging	3 (3-0-6)

NSC 4426-4435	Selected Topic in Health Technology and Innovation	3 (3-0-6)

C. Free Elective Courses

6 Credits

Students can take free elective courses of 6 credits from any faculty in Assumption University upon completion of the prerequisites (if any).

Study Plan

First Year

First Semester

Course Code	Course Title	Credits
NGH 1001	English for Effective Communication	3 (2-3-6)
	One Foundational Elective Course (1/3)	3 (3-0-6)
NSC 1201	Dimensions of Health, Wellness, and Resilience	3 (3-0-6)
NSC 1202	Global Health and Wellness Trends	3 (3-0-6)
NSC 1203	Human Anatomy and Physiology	3 (2-2-5)
NSC 1204	Principles of Disease Prevention and Health Promotion	3 (3-0-6)
NSC 1207	Seminar in Integrative Health and Wellness I	1 (1-0-2)
Total		19 (17-5-37)

Second Semester

Course Code	Course Title	Credits
NGH 1002	English for Health and Wellness Professionals	3 (2-3-6)
	One Foundational Elective Course (2/3)	3 (3-0-6)
NGH 1003	Equality, Diversity, and Inclusion	3 (3-0-6)
NGH 1004	Resilience and Mental Well-being in Modern Society	3 (3-0-6)
NSC 1205	Sociology of Health and Wellness	3 (3-0-6)
NSC 1206	Introduction to Health Literacy	3 (3-0-6)
NSC 1301	Seminar in Integrative Health and Wellness II	1 (1-0-2)
Total		19 (18-3-38)

Second Year

First Semester

Course Code	Course Title	Credits
NGH 1003	Integrated English Skills	3 (2-3-6)
	One Foundational Elective Course (3/3)	3 (3-0-6)
NSC 2201	Nutrition and Lifestyle Management	3 (3-0-6)
NSC 2202	Intercultural Awareness and Competency	3 (3-0-6)
NSC 2203	Integrative and Complementary Health Approaches	3 (3-0-6)
NSC 2204	Design Thinking in Health and Wellness	3 (3-0-6)
NSC 2301	Seminar in Integrative Health and Wellness III	1 (1-0-2)
Total		19 (18-3-38)

Second Semester

Course Code	Course Title	Credits
NSC 2205	Public Health and Community Care	3 (3-0-6)
NSC 2206	Health Policy and Global Health Systems	3 (2-3-6)
NSC 2207	Introduction to Evidence-Based Strategies to Optimize Health, Happiness and Well-being	3 (3-0-6)
NSC 2302	Seminar in Integrative Health and Wellness IV	1 (1-0-2)

Two Major-Required Courses (1/9, 2/9)	6 (---)
Total 16 (---)	

**Third Year
First Semester**

Course Code	Course Title	Credits
NSC 3201	Health Law and Ethics	3 (3-0-6)
NSC 3202	Leadership and Healthcare Management	3 (3-0-6)
NSC 3203	Workshop I	Non-credit
	One Professional Elective Course (1/6)	3 (---)
	Two Major-Required Courses (3/9, 4/9)	6 (---)
	Total 15 (---)	

Second Semester

Course Code	Course Title	Credits
NSC 3204	Workshop II	Non-credit
	Two Major-Required Courses (5/9, 6/9)	6 (---)
	Two Professional Elective Course (2/6, 3/6)	6 (---)
	Total 12 (---)	

**Fourth Year
First Semester**

Course Code	Course Title	Credits
	Two Major-Required Courses (7/9, 8/9)	6 (---)
	Two Professional Elective Course (4/6/, 5/6)	6 (---)
	One Free Elective Course	3 (---)
	Total 15 (---)	

Second Semester

Course Code	Course Title	Credits
	One Major-Required Courses (9/9)	3 (---)
	One Professional Elective Course (6/6)	3 (---)
NSC 4201	One Free Elective Course	3 (---)
	Internship in Health, Wellness, and Technology Industry	0 (240 hrs.)
	Total 9 (240 hrs.)	



Course Description

COURSE DESCRIPTION

AAD 1001	Drawing and Painting	3 (2-2-5)

Prerequisite: AAD1111 Intensive for Fundamental Drawing

Line, form, color, value, texture, movement, proportion, perspective, composition, direct observation, realistic representation, various drawing and painting techniques

AAD 1002	Design Foundation	3 (2-2-5)

Line, shape, texture, color/hue, value, saturation, size, space, continuation, proximity, direction, alignment, proportion, repetition, dimension, completion, symmetry, contrast, correspondence, hierarchy, balance, emphasis, unity

AAD 1003	Visual Art Media	3 (2-2-5)

Prerequisite: AAD 1001 Drawing and Painting

Traditional and digital art media, material exploration, formal and technical skill, experimental exercises, visual thinking, visual language, and conceptual development

AAD 1004	3D Foundation	3 (2-2-5)

Principles of three-dimensional visual abstractions, form, space, mass, structure, scale, proportion, perspective, elevation, lighting, 3D modeling and rendering, spatial and temporal dimensions, 3D computer generated imaging software

AAD 1005	Fundamental of Typography	3 (2-2-5)

Prerequisite: CA 1103 Introduction to Computer Graphic Design

Basic principles of type and typesetting, history of typography, type anatomy and classification, basic lettering, basic grid system, layout, and page design software

AAD 1006	Digital Illustration	3 (2-2-5)

Prerequisite: CA 1103 Introduction to Computer Graphic Design

Hand-rendered illustration, digital painting, stylistic approaches, graphic translations, form to content, conceptual solutions, commercial and artistic venue, editorial, concept art, character design, raster graphics editor software

AAD 1111	Intensive for Fundamental Drawing	Non-Credit

Basic black and white drawing techniques, explore mark making, value, line and line quality, scale, proportion, shading, direct observation, basic representational imagery

AAD 2007	Art History and Aesthetics	3 (3-0-6)

Prehistoric art, Ancient Mediterranean, Medieval Europe, Byzantine, Renaissance, Europe 1800- 1900, Asian art, Global vanguards, Modernism 1900-1980, Contemporary art, Philosophy of art, classic to contemporary thinkers, multicultural art, multi-sensory art experiences, artistic value and meaning, art criticism, critical thinking, interpretation and judgement, artistic inspiration

AAD 2008	Digital Photography	3 (2-2-5)

History of photography, photographic equipment and material, basic camera operations, fundamental concepts and techniques, photographic composition, basic cinematography

AAD 2009	Visual Language	3 (2-2-5)
Prerequisite:	CA 1103 Introduction to Computer Graphic Design	
Creative thinking, contextualized design concept, visual literacy, problem-solving, interpretation, design elements, form relationships, design principles, communication principle.		
AAD 2010	Corporate Visual Identity	3 (2-2-5)
Prerequisite:	AAD 2009 Visual Language	
Mark, sign, symbol, icon, semiotics, syntactic, semantic, pragmatic, marketing analysis visual branding design, critical and design thinking		
AAD 3011	Layout and Composition	3 (2-2-5)
Prerequisite:	CA 1103 Introduction to Computer Graphic Design	
Visual structure, history of visual communication design, design vocabulary and principles, typography, stylistic approaches, visual analysis, critical and design thinking, print and on-screen layout design, kinetic compositions		
AAD 3012	Thai Art and Culture	3 (3-0-6)
Dvaravati, Sri Vijaya, Lop Buri, Lanna, Sukhothai, Ayutthaya, Rattanakosin, Buddhist art and architecture, Thai folklore, Thai cultural heritage, Southeast Asian influences, Thai Contemporary art.		
AAD 3013	Design Management and Creative Innovation	3 (3-0-6)
Prerequisite:	BBA 1006 Essential of Economics for Entrepreneurs	
Entrepreneurship, design process and strategy, business model canvas, organization and financial management, creative and design thinking, real-world business situations, leadership and professional practice, human centered design, green communication design with social responsibility for sustainable development		
AAD 3014	CCD Internship	1 Credit (160 hours)
Requirement: 9 Credits from one major concentration: Digital Imagery or Graphic Design		
Professional practice, apprenticeship in design and business, workplace dynamics, professional and intercultural communication, roles, and responsibilities within an organization.		
AAD 4016	CCD Art Thesis I	3 (2-2-5)
Prerequisite:	ELE 1002 Communicative English II and 12 Credits from one major concentration: Digital Imagery or Graphic Design	
Mentored independent study, culmination of advanced studies in major concentration, applied cumulative theoretical and practical knowledge, conceptual development, preparatory research towards the Thesis topic		
AAD 4017	CCD Art Thesis II	3 (2-2-5)
Prerequisite:	AAD 4016 CCD Art Thesis I	
Comprehensive visual understanding and presentation, conceptual development, design execution, technical production, aesthetic creation, professional and effective in creative communication design, thesis exhibition production		
AAI 1300	Construction Fundamentals	3 (2-2-5)
Introduction to small size building construction, standard timber construction methods		

short span beams, column and floor joist, properties of basic construction materials such as timber, concrete and masonry including studio work.

AAI 1301 Introduction to Computer-Aided Design 3 (2-2-5)
Basic understanding of commanding computers as a design tool with industry-standard design applications for two-dimensional architectural drawings, three-dimensional modeling, animation and high quality presentation.

AAI 2100 History of Contemporary Architecture 2 (2-0-4)
Prerequisite: ADX 1102 Art and Design Appreciation
Architectural history from the Industrial Revolution to the 1960's Late Modernism, comparative reviews incorporating research and analysis of the tendencies and forms of architecture, its concept, philosophy, and also construction methods, contextual influences posing on the consequent architecture, i.e., geographical, sociocultural, political, and technological factors.

AAI 2101 Design Method 3 (3-0-6)
Parallel investigation in conjunction with the design studio in order to substantiate architectural knowledge through the discussion of actual architectural and design case studies, correlation between conceptual foundation, learned in the studio context, physical, and formal building and implementation in design practice, multi-dimensional organization of an architectural project, such as planning, formation, and execution.

AAI 2102 History of Thai Architecture 3 (3-0-6)
Components of Thai Architecture from Sukhothai to Rattanakosin periods, various influence and development of Thai Architecture, influences of culture from outside and analysis of unique Thai Architecture in different periods of time.

AAI 2103 Architectural Design Principle 3 (3-0-6)
Principles of architectural design including approaches, ideation and design thinking, tactics, and archetypes, contexts and analyses, typologies, overview of approaches through various theories in the design manifestation, planning, analogy and metaphor, regionalism, tectonic, meaning translation, phenomenology and genius loci, studies through cases of noteworthy architectures.

AAI 2200 Integrated Design I 6 (2-8-8)
Prerequisite: ADX 1304 Design Fundamental
Continuation and integration of architectural and interior architectural design approach focuses on the intimate-large scale residential and commercial spaces by considering basic related factors such as space, measure, structure, site, tectonics, program, and habitation, poetic meaning, human needs, and the interaction of persons with the natural and built environment as well as integration of artistic sensibility, creativity, and the understanding of human factors through basic living spaces. The practice processes with problem solving, an individual concept, analysis of human relations to space, and a practical problem-solving solution. Schematic design tools including hand-drawing, drafting, model-making, and presentation are skills to apply.

AAI 2201 Integrated Design II 6 (2-8-8)
Prerequisite: AAI 2200 Integrated Design I
Continuation of practice from AAI 2200 Integrated Design I, an exploration of creativity

through interior and architectural design practices with space organization and human perception as well as broadening architectural understanding with multi-user private and medium-scale public design problems. Study how architecture fits contextually into existing circumstances, and how poetic meanings relate to built-forms, analysis of existing places and synthesis incorporating the more complex multi-dimensions of architectural environments. Using tools and techniques to transfer hand-drawn sketches into graphical presentation, from conceptual diagrams to fully loaded architectural presentation.

AAI 2300 Advanced Computer-Aided Design 3 (2-2-5)
Advanced study of computer aided design and the primary introduction to the creation of work with a design and technology context, narrative, computation, and interactivity. Students have to develop their investigations and interests as well as a space for exploration, experimentation, and methodologies.

AAI 2301 Building Technology and Construction I 3 (2-2-5)
Prerequisite: AAI 1300 Understanding Buildings and Environment
Standard medium size building construction method using reinforced concrete, light frame steel for the roof system, principles of structural system, properties of building materials such as steel, glass and other standard building products including studio work.

AAI 2302 Building Equipment and Systems 3 (2-2-5)
Fundamental design principles of building equipment and systems, water supply and sanitary system, air conditioning system, electricity and lighting systems, fire protection systems, vertical and horizontal transportation system, communication system, security system, smart building systems and studio work.

AAI 2303 Fundamentals of Building Information Management 2 (1-2-4)
Integration of building information management (BIM) in architectural design and construction processes, data integration, collaboration methods, innovative applications and environments in project life cycle.

AAI 2304 Material Application in Interior Architecture 3 (2-2-5)
Systematic approach to selecting essential interior design elements, color, and materials: types, properties, applications, and practicality as well as awareness of ecological problems, sustainability, and suggestions for future substitution for materials.

AAI 2305 Furniture Design and Production 3 (2-2-5)
Process of making furniture, scale, proportion, basic joinery, materials selection, and assembly techniques. Through lectures, demonstrations and field trips and making of full-scale piece of furniture, students are encouraged to explore diverse interdisciplinary approaches to creative problem solving

AAI 3100 Theory and Concept in Design 3 (3-0-6)
Contemporary architectural and design theories and concepts, from the 15th Century to late Modern period as well as the present time, through the study of significant texts and buildings of the sentimental architects and theorists, investigating the formal, technological, social, political, and economical debates at issue within the discipline, with emphasis given to evaluate and articulate the interactions between theory and practice, thereby enabling students to formulate and assess strategies for the making of interior architectural space and design of architecture.

- AAI 3101 History of Interior Architecture 3 (3-0-6)
 Prerequisite: ADX 1102 Art and Design Appreciation
 History and the evolution of space planning, interior architecture, decorative details, and furniture design from ancient Egypt through the 19th century in Europe, styles and characteristics of each period as a reference to future developments.
- AAI 3102 Seminar in Architecture 2 (2-0-4)
 Architectural seminar involving architectural development from the past to present in terms of theoretical and practice and the task of professional development, problems and obstacles in working and their solutions.
- AAI 3103 Interior Architectural Seminar 3 (3-0-6)
 Development of interior design from the past to present, academic and practical thinking, obstacles and setbacks relating to the profession and their solutions.
- AAI 3200 Architectural Design I 6 (2-8-8)
 Prerequisite: AAI 2201 Integrated Design II
 Continuation of practice from AAI 2201 Integrated Design II with moderate complex level, developing the design process skills through conceptualization, analysis, synthesis, visualization of architectural design at all levels of correlation of context, conceptualization in value, identity and aesthetic quality in architectural design and exploration of a medium scale public building.
- AAI 3201 Architectural Design II 6 (2-8-8)
 Prerequisite: AR 3200 Architectural Design I
 Continuation of practice from AAI 3200 Architectural Design I with more complexity, experiment and application of a wide span structure, development of space and building form through the expression of structure, building envelope, materials, site planning, and space arrangement of building for tropical climate concerning aesthetics and utility system of building, and exploration of a medium scale public building, integration with marketing and business issues.
- AAI 3202 Interior Architectural Design I 6 (2-8-8)
 Prerequisite: AAI 2201 Integrated Design II
 A design of large-scale in hospitality program explores of multi-level relationship between space, people, and context, in setting through the development, execution of design ideas, understanding of customer experiences, universal users, building condition, building codes and regulations in relation to interior space. Project is structured to emphasize design process: analyzing, programming, conceptualizing, development, as well as professional communication.
- AAI 3203 Interior Architectural Design II 6 (2-8-8)
 Prerequisite: AAI 3202 Interior Architectural Design I
 Advanced design project based on critical observation and comprehension to design for complex scale, wellness, and healthcare design. Focusing on design for users with specific needs, such as the elderly and the disabled, creating effectively interior environment. The balance between visionary concept and practical solution, awareness of universal design, human-centered design and built environment system. The knowledge of advanced in digital communication is considered.

- AAI 3204 Experiential Interior Design 6 (2-8-8)
Advanced design of multi-level program explores conceptual thinking as strategy to interconnect the complex information, between store and brand. Project is critically challenged to reinterpret brand, identities in relation to space organization to cooperate with virtual prescribed clients. Collaborative practice in design based on an impact factor of the change of future environment, a multidiscipline structure in business, trend, and consumer behavior.
- AAI 3300 Building Technology and Construction II 3 (2-2-5)
Prerequisite: AAI 2301 Building Technology and Construction I
Composite building materials and construction methods, large span pre-stressed and post-tensioned systems for floor and beam, fundamental principles of prefabricated-construction system and curtain wall including studio work.
- AAI 3301 Building Technology and Construction III 3 (2-2-5)
Prerequisite: AAI 3300 Building Technology and Construction II
Principles of design, construction technology, and structure of long span structure and large- scale building, advance knowledge and practice of the building construction in relation to the building systems, sustainable design technology concept and application and studio work
- AAI 3302 Structural Design Principles 2 (2-0-4)
Fundamentals of analysis of structural members under apply loads, and behaviors of force upon structure, static equilibrium of structure, mechanical properties of materials, basic concept and design criteria of structural design in architecture and materials selection
- AAI 3303 Fundamentals of Site and Landscape Planning 3 (2-2-5)
Principle of site and landscape architectural planning through a thorough analysis of site inventories, surrounding and context, climate and environment, programming and user analysis, design criteria and elements for building layout and spatial design in landscape architecture.
- AAI 3304 Basic Interior Construction Technology 3 (2-2-5)
Basic consideration namely: human ecology, which includes anthropometric and ergonomic principles, basic construction methods, materials and finishes and typical details which include skeleton structure of floor, wall, ceiling and staircase wall, ceiling, and staircase.
- AAI 3305 Advanced Interior Construction Technology 3 (2-2-5)
Prerequisite: AAI 3304 Basic Interior Construction Technology
Advanced construction methods that relate to complex volumes of interior space, which include principles of skeleton structures and modern material and installation techniques, framed structure of regular and raised floors with various aspects of installation of finishing material namely wood, metal, plastic, and glass, focusing on interior architecture working drawing following specifications and construction documents.
- AAI 3306 Lighting Design for Interior Architecture 3 (2-2-5)
Factors that influence lighting design decisions, including properties of materials as they relate to light, codes and law, reading and using catalogs, documentation, and health effects of light, technical and practical aspects of lighting design, Course will also cover specifications and working drawings for interior lighting applications , including the physics

of light, lab technology, the use and design of natural and artificial light throughout history to establish a broad understanding of the culture and historical implications of light, Lighting design fundamentals for natural and artificial light sources application of photometric data and calculation.

AAI 4100 Methods of Research and Data Processing 3 (3-0-6)
Principles and regulations of appropriate architectural research in conjunction with quality and quantity to support research, history and conservation, research in technology, marketing, social work and behavior involving architecture and case study analysis.

AAI 4200 Architectural Design III 6 (2-8-8)
Prerequisite: AAI 3201 Architectural Design II
Continuation of practice from AAI 3201 Architectural Design II, investigation and analysis of spatial, programmatic and contextual factors as determinants in cluster buildings planning, importance of built environments responsive to urban context and communities, multi-level of correlation of buildings in an urban fabric, parallel with current urban situation, forming the conceptual background of large-scale public architecture relative to macro planning issues, collaboration with AAI 4300 Building Technology & Construction IV and major electives courses.

AAI 4201 Architectural Design IV 6 (2-8-8)
Prerequisite: AAI 4200 Architectural Design III
Continuation of practice from AR 4200 Architectural Design III, developing design process focusing on multidisciplinary research pertaining to individual interests, analysis and studying of issues of interest, collaboration with major elective courses.

AAI 4202 Interior Architectural Design III 6 (2-8-8)
Prerequisite: AAI 3203 Interior Architectural Design II
The senior design project is emphasized the multi-dimensional aspects of complex program, different environmental, cultural, social, sustainable, and environmental interior architectural issues. Students explore the user experience and challenge with the multi-functional use of centers and communities. Concerning with in-depth research technique as a method for data analysis, generate potential space planning, the design context and construction drawing.

AAI 4203 Interior Architectural Design IV 6 (2-8-8)
Prerequisite: AAI 4202 Interior Architectural Design III
Student's experience of public large scale design project, managing to initiate and execute complex design program under the time constraint, the design process reinforcing critical and analytical thinking through the search for marketable concept and practical solution. This will be used as a focal point and a case study for exploring the evolution and history of museum architecture and museum practices as they change in the emerging 21st Century. Within a seminar format, students will explore the histories of a range of topics that relate to the role of museums today. The quality of construction drawings is observed and revised to form student's draftsmanship and realistic vision to professional design and bring knowledge, innovative communication to participate in the creation.

AAI 4204 Practicum in Architecture Non-Credit (320 Hours)
A 320 working hour professional training at an architect, construction, consultant firm or real estate development company, process of architectural design construction techniques,

fundamental of project management, architect office administration and professional practices.

AAI 4205 Practicum in Interior Architecture Non-Credit (320 Hours)
A 320 working hours professional training at an interior architecture firm in order to expose students to all kinds of hand-on experiences and knowledge in the real interior architecture business world.

AAI 4300 Building Technology and Construction IV 3 (2-2-5)
Prerequisite: AAI 3301 Building Technology and Construction III
Principles of design, construction technology, and structure of high-rise buildings, advanced building envelop system, collaboration with AR 4206 Integrated Architectural Design I, integration of construction details design and building equipment and systems in architectural design.

AAI 4301 Fundamentals of Urban Planning and Design 2 (1-2-4)
Formation and development of city in the history, urban morphology, theories of urban spatial design, law and regulation and land-use planning, transportation planning, urban public spaces, urban landscape and streetscape, the city image and its elements, and urban design studio.

AAI 4302 Architectural Programming 2 (2-0-4)
Programmatic elements in architecture, typological analysis, factors involving functional determinant, behavior psychology of users, context and peculiarity of programming, area requirement calculation, law and regulation for programming, case study analysis, marketing and investment analysis for creating programming,

AAI 5200 Professional Ethics and Practices 3 (3-0-6)
Ethical conduct of the professionals in the field, relationship between client and designer, designer and staff, an understanding of zoning, fire protection material and safety regulation for building usage, study building law which relate to interior design sections, bidding and contracts, and work supervision.

AAI 5201 Pre-Thesis in Architecture 3 (0-6-3)
Prerequisite: AAI 4201 Architectural Design IV
 ELE 2000 Academic English
Preparation of thesis information, context, theory and facilities of thesis research. The direction will be individually supervised by assigned advisor.

AAI 5202 Thesis in Architecture 9 (0-18-9)
Prerequisite: AAI 5201 Pre-Thesis in Architecture
 AAI 4201 Architectural Design IV
 AAI 3100 Theory and Concept in Design
Continuation of a self-initiated architectural design proposal from AAI 5201 Pre-Thesis in Architecture under the supervision of thesis advisor and committee, developing architectural design concept and design development based on information from research and analysis, architectural presentation through various media and thesis writing.

AAI 5203 Pre-Thesis in Interior Architecture 3 (0-6-3)
Independent study on interior architectural issue and program based on student's

individual interest. The student collects the analytical information on the chosen existing building and study context, case study, specific user behavior, and etc. which are beneficial to his/her topic. The student is required to work consistently under the supervision of the assigned advisor throughout the semester.

AAI 5204 Thesis in Interior Architecture 9 (0-18-9)

Prerequisite: AAI 5203 Pre-Thesis in Interior Architecture
 AAI 3203 Interior Architectural Design IV

A student self-initiated design project under the thesis advisor supervision which investigates the specific type of interior space, collecting and analyzing project condition, case studies, user behaviors before design process.

AAI 5400 Thai Architecture 3 (2-2-5)

Different components of Thai architecture as in building bodies, roofs and structures, analysis of different forms and spaces of Thai buildings from past to present time, conducting research on Thai design, architectural characteristics, site planning and appropriate functions.

AAI 5401 Building Cost Estimation and Control 3 (3-0-6)

Principles of building estimate and control by way of rough and exact estimation, the cost of materials, equipment and cost of labor, quality survey: materials, labor cost and equipment for final decision.

AAI 5402 Interior Architecture Cost Estimation and Control 3 (3-0-6)

Budgeting and cost estimating of a finished interior by making quality survey of materials, estimating labor cost and construction period, practice of cost controlling within a given budget, payment and penalty schedules.

AAI 5403 Fundamentals of Architectural and Urban
 Conservation 3 (3-0-6)

Principles of architectural and urban conservation for evaluation and development, physical environment, economic and social work by government policy to reinforce fundamentals of architectural and urban conservation.

AAI 5404 Construction Management 3 (1-4-4)

Construction methods in relation to the engineer, contractor, architect, and security control for safety purposes, including municipal laws of construction.

AAI 5405 Individual Study in Architecture 3 (3-0-6)

Individual study on interesting architectural topics of interest of the students, under the supervision of the lecturers.

AAI 5406 Individual Study in Interior Architecture 3 (3-0-6)

Study and research of individual's interests pertaining to interior architecture under the approval of an advisor.

AAI 5407 Real Estate Development 3 (3-0-6)

Fundamental principles in real estate development process, categories of real estate projects, law and regulations, feasibility and marketing analysis, financial investment, property management

- AAI 5409 Architectural Psychology 3 (3-0-6)
Basic concepts of psychology development, fundamentals of psychology, human behavior, mankind and environment.
- AAI 5410 Fabric Design and Applications 3 (2-2-5)
Principles of fabric design and applications, technical language associated with qualities of fabric, texture, pattern together with color to apply in interior design.
- AAI 5411 Elements of Thai Architecture 3 (2-2-5)
Different elements of Thai architecture as in building bodies, roofs and structures, analysis of different forms and spaces of Thai traditional architecture, conducting research on Thai design, architectural characteristics, appropriate functions and apply to use in interior design.
- AAI 5412 Aesthetic Appreciation 3 (3-0-6)
Aesthetic appreciation, diverse branches of art in aesthetic from conceptual idea, imaginative interpretation from natural aesthetic in which transformed into art and design through artists' interpretation of his or her philosophy in creative process with diverse medium or materials. Students will gain how to apply aesthetic in the world of art and design through the eye of the designers.
- AAI 5413 Project Management 3 (3-0-6)
Feasible programmed instruction of projects, site, economical techniques, professional management, budget analysis and leasing.
- AAI 5414 Energy Saving (Workshop in Germany) 3 (3-0-6)
Unconventional energy saving resources, alternative and renewable energy such as solar energy, wind power, water power, geothermal power and biomass.
- AAI 5415 Interactive Features Design 3 (2-2-5)
Introduction to the creation of work within a design and technological context, i.e., new media installation, interactive architecture, and intelligent space, developing individual investigations and interests by exploration, experimentation, and implementation.
- AAI 5416 Façade Design in Architecture 3 (2-2-5)
Theoretical basis for a design understanding for overall performance of façades, examination of the complex interrelationships through a consideration of existing constructions, design criteria in successful design of façades, knowledge of materials, methods of manufacturing and installation.
- AAI 5417 Interior Design by Architects 3 (2-2-5)
Introduction to interior spatial design and decoration necessary for professional architects incorporating lectures and studio, issues surrounding the interior profession and the architects, survey of contemporary works, principles of shaping and planning interior spatiality, design factors, programs, elements, colors, lighting, tectonic, presentation skills, and decorative materials for both new and renovation projects.
- AAI 5418 Introduction to Exhibition Design 3 (2-2-5)
Introduction to exhibition design, strategies in designing for exhibitions and trade show booths, various issues ranging from programs space design, conceptual development of a thematic approach, and creation of a presentation system for products, artifacts, or

artwork activities as business practices specific to the trade show and exhibit design industry, and the effective use of computer renderings and presentation skills.

AAI 5419 Special Topics in History, Theory and Technology 3 (3-0-6)
in Architecture

Specialized topics of interest in history, theory and technology of architecture and urbanism.

AAI 5420 Light, Perception and Culture 3 (3-0-6)

Lighting design principles, theories, introduction to psychology of lighting design, and the impact of energy ethics on lighting decisions, and design studio.

AAI 5421 Landscape Architectural Design 3 (2-2-5)

Prerequisite: AR 3310 Fundamentals of Site and Landscape Planning

Basic Landscape design, survey landscape design history and theory, landscape planning, styles and modes of landscape design, hard scape and plant materials, presentation techniques, and landscape architectural design project.

AAI 5422 Contemporary Theory and Concept in Architecture 3 (3-0-6)

Contemporary architectural theories and concepts, postmodern theories, emphasis on leading architects, analysis and synthesis of architectural thoughts of current world.

AAI 5423 Sustainable Building Design 3 (2-2-5)

Principle of the passive and active building design, high performance building, resources and energy management, renewable energy solutions, and various sustainable design applications.

AAI 5424 Introduction to Design-Build 3 (2-2-5)

Design research and design thinking methodology on prototype, materials and tectonics, technology and innovative design and construction, construction detail design by hands-on.

AAI 5425 Project Feasibility Study 3 (3-0-6)

Fundamentals of analysis of marketing, construction cost estimation, finance and investment, influential factors and data analysis; planning in economic perspective, allocation of products that help to increase profits and programming calculation of returns and investment.

AAI 5426 Advanced Lighting 3 (2-2-5)

Advanced theoretical lighting, color and illumination practical functions and aesthetic senses for interior architecture. Practicing lighting design in different scale and perspective which site excursion and seminar are provided.

AAI 5427 Advanced visualization Technique 3 (2-2-5)

The development of professional presentation skills in the processes of advanced 3-D modeling and animation, using the digital tools. Students will gain more advanced techniques to generate a structural of spatial visualization. Digital models' presentation and communication will be explored.

AAI 5428	Advanced Construction Document for Interior Architecture	3 (2-2-5)
The objectives of the course are to introduce the art, science, and practice of working drawing of interior architecture building service and detailing to the future architect in all aspects of design, installation, and maintenance associated with building services. Included air-conditioning, heating and ventilating, water services, sanitary works, energy management systems, solar collectors, electrical distribution systems, electrical equipment, materials, lighting.		
AAI 5601	Interior and Semi-outdoor Space Design	3 (1-4-5)
Explore the seamless integration of interior and exterior spaces—architecture-interior-landscape—in cohesion, developing design strategies for balconies, terraces, patios, and atriums, the use of materials, plants, and lighting for outdoor environments, the relationship between indoor and outdoor landscape, basic materials for semi-outdoor space considering waterproofing and thermal comfort of an open-air environment, designing inviting and functional transitional spaces.		
AAI 5604	Sculpture amidst Architecture	3 (1-4-5)
3D design principles, sculptural fabrication process, such as form, spatiality, structure, volume, visual balance, surface treatment, composition, movement and scale, contemporary methods and techniques, the development of conceptual intent, aesthetics and technical skills, the intersection between the artistic value and application of architecture and sculpture, studio making sculptures.		
AAI 5605	AI Art	3 (1-4-5)
The intersection of artificial intelligence and creative expression, generative AI systems, experimenting with design and fine art through AI tools, design ideation, conceptualization, and innovative applications of AI within the design industry, studio practicing design and fine art with AI.		
AD 3200	Strategic Integrated Marketing Communication Planning	3 (3-0-6)
Prerequisite: CA 2102 Principles of Marketing Communication		
Selection and integration of marketing communication tools, strategic implementation and measurement of campaign effectiveness in enhancing value across the customer journey.		
AD 3201	Data-driven Communication and Advertising Research	3 (2-2-5)
Prerequisite: CA 2130 Communication Arts Research		
Applications of databases, acquired from quantitative and qualitative methodologies, for advertising, marketing communication and brand communication to create data-driven communication campaigns.		
AD 3202	Customer Journey, Branded Experience and Relationship	3 (3-0-6)
Prerequisite: CA 3100 Consumer Insights and Tools		
Exploration of customer lifestyles and journeys, creation of meaningful customer experiences, blending of branded customer experience, customer journey and customer database to create customer acquisition and retention planning for long-term customer relationship management		

AD 3203	Idea Generation for Creative Communication	3 (2-2-5)
Prerequisite:	CA 1102 Introduction to Creative Communication	
Exploration of inspirational sources for idea generation, using tools and techniques of idea generation, applying creative ideas to creative communication		
AD 3260-64	Selected Topics in Advertising and Brand Communication Concepts	3 (3-0-6)
An exploration and study of selected topics in advertising and brand communication concepts. The topic will be announced semester by semester.		
AD 3270-74	Selected Topics in Advertising and Brand Communication Practices	3 (2-2-5)
An exploration and practice of selected topics in advertising and brand communication practices. The topic will be announced semester by semester.		
AD 3280	Inspiration, Lifestyles and Popular Culture	3 (2-2-5)
Exploration of inspirations, lifestyles and popular culture from various perspectives, understanding of how they affect creativity, marketing, consumers and communication.		
AD 3281	Micro Influencer Communication Strategy	3 (3-0-6)
Two-step flow communication model, network activation and engagement, brand communities, using micro influencers and influencer communication strategies to achieve business, brand and marketing objectives.		
AD 3282	Aesthetic Taste for Creative Communication	3 (2-2-5)
Copywriting and art direction for creative communication, choosing words and arranging images to create creative marketing and brand communication.		
AD 3283	Brand Identity Design	3 (2-2-5)
Designing corporate identity and brand elements, logos, symbols, colors, fonts, mascots, packaging and brand naming.		
AD 3284	Presentation Design for Pitching	3 (2-2-5)
Designing presentations and presentation elements layout to create effective, impactful, and professional marketing and campaign planning presentations in professional business contexts.		
AD 4200	Innovative Brand Communication	3 (3-0-6)
Prerequisite:	CA 3101 Brand Communication	
Using tools of brand communication to build brand equity in innovative ways, applications of human technologies such as augmented reality, virtual reality, voice recognition, image recognition, face detection, biometrics, robotics, artificial intelligence, and internet of things to create, communicate, deliver, and enhance brand value across the new customer journey, driving businesses and brands towards digital transformation.		
AD 4201	Media Synergy and Content Design	3 (2-2-5)
Prerequisite:	CA 2102 Principles of Marketing Communication	
Customer identification, analysis of customers' in-depth data, synergizing various media, formulation of digital media strategy, creation of online contents to enhance customer		

engagement and advocacy

AD 4202 Advertising and Brand Communication Workshop 3 (2-2-5)
Prerequisite: AD 3200 Strategic Integrated Marketing Communication Planning
 AD 3201 Data-driven Communication and Advertising Research
 AD 3202 Customer Journey, Branded Experience and Relationship
 ELE 2000 Academic English

A workshop training in advertising and brand communication under the supervision of the instructor. Learners will plan advertising and brand communication campaigns to enhance business.

ADS 1303 Digital Design and Presentation 3 (2-2-5)
Creative use of 2D and 3D computer applications in aiding design process, presentation, as well as enabling designs to be realized in digital fabrication machines.

ADX 1101 Art and Design Appreciation 3 (3-0-6)
Chronological study of art and design throughout history from a range of places, time and culture through explorations, analyses, and experiential studies of art and design works in order for students to be imbued in the valuable development of mankind's visual culture.

ADX 1102 Design Culture Exposure 2 (0-4-4)
Exploration of design culture through physical exposure and experiencing of prestigious local and international award-winning design projects, participation in design-related events locally and internationally

ADX 1140 Journey for Urban Art and Culture Exploration 3 (3-0-6)
A journey to experience on creative art and culture and trends in urban area regarding its development and cumulative inheritances from various industries that drive multidimensional movements in our contemporary design world varying from individual level to social level.

ADX 1240 Artist Studio (Painting and Rendering) 3 (2-2-5)
Essential concepts and techniques of freehand painting and interior presentation, emphasizing on skills of using various media and techniques, ranging from landscape painting to two-dimensional presentation to three-dimensional perspective for communicating ideas.

ADX 1300 Preparation for Architectural and Design Non-credit (80 Hours)
 Studies
Basic freehand sketch techniques, principles of perspective sketch, and graphic presentation, basic Two-dimensional and Three-dimensional visual composition

ADX 1301 Design Visual 3 (2-2-5)
Composition of abstract visual art using elements, such as shape, form, space, figure and ground, color, and texture. Design experimentation through various methods of communication, such as drawing painting, collage, folding, carving and model making. Emphasis given to the aesthetics of composition, idea manifestation, and communication skills.

ADX 1302	Design Drawing	3 (2-2-5)
Elementary concepts and techniques of freehand perspective sketch and rendering, training in perception of materials, form and spaces, various media and techniques of creation of artistic forms in light, shade and shadow, emphasizing upon conceptual development of personal skills.		
ADX 1303	Design Communication	3 (2-2-5)
Essential methods of verbal and graphical presentation, emphasizing upon concepts and skills of using various media and techniques, ranging from two-dimensional presentation to three- dimensional modeling for communicating ideas.		
ADX 1304	Design Fundamental	3 (2-2-5)
An introduction to the fundamentals of architectural design as applied to build environment. Architectural theory and design practice focus on the basic design to understand the relationship between forms, function and design component as well as understanding the meaning of design. The knowledge of design fundamentals applies into three-dimensional space for intimate dwelling exercises.		
ADX 1305	Advanced Drawing and Delineation	3 (2-2-5)
Methods of drawing used in design and architecture profession i.e., orthographic projection, perspective projection, shade and shadow and drawing technique in pencil and ink, including digital media such as drawing pad.		
ADX 1306	Delineation	3 (2-2-5)
Developing in the student a good, simple sketch technique to facilitate easy and quick communication or to serve to record design ideas during conceptualization or presentation; Exercises including drawing of trees, automobiles and human figures; representation of building material; construction of shades and shadows and scientific method of drawing of one- and two- point perspectives; Media including graphite and colored pencil, felt tip pen and magic marker and introduction of simple watercolor on various types of paper and board.		
ADX 1307	Design Illustration and Presentation	3 (2-2-5)
Advanced architecture presentation techniques covering both hardcopy by hand-drawn and drafting and digital product formats, various 2-D and 3-D modeling, digital presentation, digital production and advance image enhancement software through basic A.I.		
AE 1000	Basic Aircraft Knowledge	3 (3-0-6)
Skill training on the aeronautics engineering and training at the entrepreneur organization site.		
AE 1001	Basic Aviation Knowledge	3 (3-0-6)
Students will be taught and trained practical assignment on interest topics in aviation at the entrepreneur organization site.		
AE 1002	Principles of Aviation Engineering	3 (3-0-6)
Skill training on the aeronautics engineering and training at the actual work site		
AE 1111	Aviation Industry Knowledge	3 (3-0-6)
Students will have participation with aviation industry and trained to do practical		

assignment on certain problems in aeronautics field.

AE 2402 English for Aviation 3 (3-0-6)
English language used in aviation communications, practice of the reading skill to fully understand Route Manual and Flight Operations Manual, practice of ATC and radiotelephony exchange, the functionally created statements, questions and responses in English as required by the nature of the job and responsibility in both oral and written forms, including communication in English with ATC by using correct structures and pronunciation patterns in order to be understood by both native and non-native speakers of English.

AE 2702 Fundamental Aircraft: Aircraft Piston Engine 3 (3-0-6)
Basic fundamental theory of piston engine, thermodynamics, mathematical model of each part of piston engine, the working cycle of this heat engine, basic piston engine design, piston engine assembly-design, metallurgy and cooling, piston engine operation, maintenance and overhaul.

AE 2923 Problem-based Training in Aircraft Maintenance I 3 (0-15-5)
Skill training on the aeronautics engineering and training at the actual work site.

AE 2924 Problem-based Training in Aircraft Maintenance II 3 (0-15-5)
Skill training on the aeronautics engineering and training at the actual work site.

AE 3121 Core Flying: Single-Engine Flight – Ground 3 (3-0-6)
Regulations, safety, pre-solo operations, cross-country planning, airspace, chart use, communications, weather, performance, weight and balance, aerodynamics, and decision-making.

AE 3122 Theory of Single-Engine – Flight 3 (3-0-6)
Prerequisite or Co-requisite: AE 3121 Single-Engine Flight – Ground
Pilot's Operation Handbook (POH), Standard Operating Procedure (SOP), Checklist, Preflight Inspection, Entry/Leave Training Area, Pattern T/G, Taxi Check, NAV Check, Turn and Slip Check, Flight Control Check and Air Work, Brief Mission Card, METAR, TAF, Flight Plan, NOTAM before Flight.

AE 3124 Basic Flying: Single/Multi-Engine – Ground 3 (3-0-6)
Prerequisite or Co-requisite: AE 3121 Core-Flying: Single-Engine Flight-Ground
Instrument flying regulations, safety, operations, navigation systems, chart use, weather, flight planning, decision-making, and crew resource management.

AE 3125 Core Flying: Single-Engine Flight – Flight 3 (0-9-6)
Prerequisite or Co-requisite: AE 3121 Core-Flying: Single-Engine Flight – Ground
Flying practice to be done according to AE 3121 Core Flying: Single-Engine Flight – Ground.

AE 3126 Basic Flying: Single/Multi-Engine-Flight 3 (0-9-6)
Prerequisite or Co-requisite: AE 3125 Core Flying: Single-Engine-Flight
Flight practice to be done according to AE 3124 Basic Flying: Single/Multi-Engine – Ground.

AE 3127 Basic Flying: Multi-Engine Operations 3 (0-9-6)
Prerequisite or Co-requisite: AE 3121 Core Flying: Single-Engine Flight – Ground
Multi-engine rating, multi-engine aerodynamics, maneuvers and procedures, engine-out

operations, safety, operations, flight planning, and decision-making.

AE 3321 Intermediate Flying: Basic Flight Performance 3 (3-0-6)
and Planning

Flight Performance and Planning comprehensively covers the EASA syllabus and Learning Objectives for this subject. This course covers all the knowledge and principles needed to enable a pilot to check that an aircraft is correctly loaded and balanced for safe and efficient operation which also includes the theory required to operate an aircraft safely in all phases of flight. Single-engine, multi-engine and class A aircraft are all covered.

AE 3311 Aircraft System: Technical Document System 3 (3-0-6)

Common and manufacturing aircraft manual, service letters, service bulletin and other issued documents, which are presented in terms of ATA system for working in maintenance.

AE 3312 Aircraft Maintenance: Maintenance Human Factor 3 (3-0-6)

Factors that might cause damage in maintenance, theory of human behavior and proactive model including how to avoid accidents during maintaining aircraft and maintenance safety.

AE 3322 Intermediate Flying: Basic Meteorology 3 (3-0-6)

Meteorology is the study of the atmosphere, atmospheric phenomena, and atmospheric effects on our weather. The atmosphere is the gaseous layer of the physical environment that surrounds a planet. Gravity keeps the atmosphere from expanding much farther. Meteorology is a sub discipline of the atmospheric sciences, a term that covers all studies of the atmosphere. A sub discipline is a specialized field of study within a broader subject or discipline. Meteorology focuses on the lower parts of the atmosphere, primarily the troposphere, where most weather takes place.

AE 3324 Intermediate Flying: Basic Human Performance 3 (3-0-6)
and Limitations

Performance will be determined by individuals behaving and operating to a set of standards; which will require them to have certain knowledge, skills and attitudes.

AE 3325 Intermediate Flying: Crew Resources Management 3 (3-0-6)
and Flight Safety

Management system which makes optimum use of all available resources equipment, procedures and people – to promote safety and enhance the efficiency of flight operations. Good flight deck and crew management practices and an effective utilization of all available resources for operational and efficiency.

AE 3401 Avionics 3 (3-0-6)

Advanced theory of avionics including the indicators and instrument used on aircraft, usefulness of this system and problems that might occur.

AE 3412 Aircraft System: Aviation Legislation 3 (3-0-6)
and Airworthiness Regulations

Aviation Acts, Airworthiness Regulation. Laws which relate to maintenance and flight operation based on FAA and EASA.

AE 3421	Intermediate Flying: Basic and advanced Aerodynamics	3 (3-0-6)
ATPL Advance Aerodynamics comprehensively covers the EASA syllabus and learning objective for the subjects. It covers a range of topics from basic aerodynamics theory to transonic and supersonic flight. This knowledge is essential for pilot's to understand the flight characteristics of aircraft.		
AE 3512	Aircraft System: Aircraft Communications	3 (3-0-6)
Introduction to basic fundamental theory of communication technology, communication equipment and systems using in aviation, signal flow chart and how to understand the communication system.		
AE 3521	Intermediate Flying: Basic Powerplants and Instrumentations	3 (3-0-6)
ATPL Power Plants and Instrumentations comprehensively covers the EASA syllabus and Learning Objectives for the subject. It deals with Flight Instruments, Warning and Recording Equipment and Automatic Flight Control Systems. This knowledge is essential to pilot's understanding for effective use of instruments on any aircraft.		
AE 3705	Commercial Flight-Ground	3 (3-0-6)
General knowledge of commercial flight: advanced aerodynamic, predicting performance, controlling weight and balance, emergency procedures, commercial decision making, maximum performance in takeoffs & landings, maximum performance in maneuver.		
AE 3711	Aircraft Maintenance: Aircraft Maintenance II	3 (2-3-6)
Relationship between the operation of flight and maintenance in airline or maintenance repair station, each part of section in maintenance organization, discussion of problems in maintenance management to understand the up-to-date situation in both local and global region.		
AE 3712	Aircraft System: Hydraulic and Pneumatic System	3 (2-3-6)
Basic fundamental theory of hydraulic and pneumatic power system and their applications in various aircraft systems, Pascal's law in an opened and closed chamber and its application, different components consisting in a simple hydraulic system, functional principle of each component in hydraulic system. Students will learn to design a simple hydraulic system, read a flow chart diagram and perform maintenance on the system involving hydraulic system.		
AE 3713	Aircraft System: Landing Gear and Brake System	3 (2-3-6)
Basic functional principle of landing gear and brake system, how to service and maintain landing gear systems and related components including wheels, brakes, indication systems and warning systems.		
AE 3723	Fundamental Aircraft: Aircraft Structure	3 (2-3-6)
Basic aircraft structure both theory of basic structure and strength of material, including fatigues and components of airframe and joints.		
AE 3726	Fundamental Aircraft: Aerodynamics	3 (3-0-6)
Basic knowledge of aviation, namely fluid dynamics, introduction to flight, flight dynamics, types of aircraft and behaviors of aircraft onboard.		

AE 3727	Fundamental Aircraft: Aircraft Performance	3 (3-0-6)
Fundamentals of propellers and jet aircraft performance such as equation of motion, level flight, gliding, climbing, range, and endurance.		
AE 3728	Fundamental Aircraft: Aircraft Materials and Hardware	3 (2-3-6)
Basic theory and basic knowledge of aircraft material, types of material especially composite material including the analysis of the problem and fixing.		
AE 3900	Seminar in International and Domestic Navigation	3 (3-0-6)
Domestic and flight regulations and evaluation of their impacts on long-range domestic and international flights, use of ICAO operational requirements and typical air carrier Ops SPECS to plan domestic and international flights, high-altitude airspace, navigation, and approach procedure chart interpretation, concepts of MNPS and RVSM airspace, dispatch procedures, ETOPS, ETP, drift down, track messages, LRN accuracy checks, Oceanic Air Traffic Control clearances, international METARs and TAFs and emergencies and contingencies while on oceanic tracks, communication systems requirements and methodology which include satellite, digital, and analog devices.		
AE 3923	Problem-based Training in Aircraft Maintenance III	3 (0-15-5)
Skill training on the aeronautics engineering and training on the actual work site.		
AE 3924	Fundamental Aircraft: Practical Verification	3 (0-15-5)
Practice of the theoretical knowledge in "Fundamental Aircraft". The practical assignment related to the topic is given.		
AE 4001	Selected Topic in Aeronautics Engineering I	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons.		
AE 4002	Selected Topic in Aeronautics Engineering II	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons.		
AE 4003	Selected Topic in Aeronautics Engineering III	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons.		
AE 4004	Selected Topic in Aeronautics Engineering IV	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons.		
AE 4005	Selected Topic in Aeronautics Engineering V	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons.		
AE 4006	Selected Topic in Aeronautics Engineering VI	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons		

AE 4221	Commercial Flight Route Planning Assignment	3 (3-0-6)
Prerequisite:	AE 3121 Core Flying: Single-Engine Flight-Ground AE 3124 Basic Flying: Single/ Multi-Engine-Ground	

The objective of this lesson is to study about flight information, route selection, and calculation of performance and limitations of the transport category airplane. The outcome of this lesson is to adapt knowledge of real-world scenarios in an airline operation in order to make decision making in all areas including safety, regulations, etc. Once the student achieve all of the required tasks, the student will be required to give a presentation whereas all of information must come from an approved sources only.

AE 4321	Performance, Mass and Balance and Operational procedures	3 (3-0-6)

Performance ATPL Flight Performance comprehensively covers the EASA: Correctly loaded and balanced in aircraft for safe and efficient operation. Single-engine, multi-engine and class A aircraft are all covered. Mass & Balance ATPL Mass and Balance comprehensively covers the EASA: To enable a pilot to check that an aircraft is correctly loaded and balanced for safe and efficient operation an aircraft safely in all phases of flight. Single-engine, multi-engine and class A aircraft are all covered. Operational procedures comprehensively covers the EASA : Application of the rules and regulations stated in Route Manual for all phases of flight from pre-flight planning until landing of the aircraft which include pre-flight planning, en-route charts, approach and landing charts, meteorological rules and regulations, operations and information. all procedures required by national and international law, and that crews have access to all information essential to the safe conduct of flights and associated activities, whether in the air or on the ground. This book deals with ICAO annexes, EU-OPS and NAT MNPS documents relevant to this requirement.

AE 4322	Intermediate Flying: Meteorology and Principles of flight	3 (3-0-6)

Meteorology is the study of the atmosphere, atmospheric phenomena, and atmospheric effects on our weather.

AE 4421	Intermediate Flying: Aircraft general knowledge	3 (3-0-6)

Aircraft general knowledge, comprehensively covers the EASA :The eight of the system which comprises the essential "organs" of the modern aircraft such as basic structure, the hydraulic, fuel, air conditioning, anti-icing, flight-control systems, DC Electrics, emergency equipment and landing gear. Warning and Recording Equipment and Automatic Flight Control Systems.

AE 4422	Intermediate Flying: Air law and Human performance	3 (3-0-6)

Air Law, International air law, JAR-OPS1 and ICAO documents and annexes relevant to international conventions and agreements.

AE 4521	Intermediate Flying: General Navigation and Flight planning & Monitoring	3 (3-0-6)

General Navigation ATPL; the Principle and Operations mean of navigation General on both Classic on and Some Modern Air Navigation System, using Compass, Navigation Map and Flight Computer. Flight Planning & Monitoring practical instruction based upon aircraft such as the small aircraft, the narrow body aircraft and wide body aircraft. Additional aspects of Flight Planning, such as the weather factor, are also taken fully into account.

AE 4522	Intermediate Flying: Radio Navigation and Radiotelephony	3 (3-0-6)
Radio Navigation ATPL General Navigation comprehensively covers the EASA syllabus and Learning Objectives for the subject. It covers different type of Navigation System used to navigate the aircraft. Which navigate aircraft through its independent Navigation Mean and independent of compass. Radiotelephony Radio Telephony (RT) communications which lie at the base of procedural flying in the professional aviation environment, standard phraseologies and terminologies used in international aviation environment.		
AE 4623	Aircraft System: Non-Destructive Inspection	3 (2-3-6)
Basic theory, current methods of Non-Destructive Inspection (NDI) used for aircraft structures, level of NDI, technique and tools.		
AE 4700	Commercial Pilot License Instructor	3 (3-0-6)
Prerequisite:	Obtain commercial pilot license preferably with instrument and multi-engine rating	
Fundamental instructions required to be the flight instructor for airplane which include learning process, human behavior, effective communication, teaching methods, critique and evaluation, and professional development.		
AE 4715	Commercial Flight I	3 (0-9-6)
Prerequisite:	AE 3221 Basic Flying: Single/ Multi-Engine- Flight II	
Training in the maneuvers and procedures necessary to meet the standards contained in the commercial pilot practical test standards, and training in cockpit resources management and safe flying practices.		
AE 4716	Commercial Flight II	3 (0-9-6)
Prerequisite:	AE 3221 Basic Flying: Single/ Multi-Engine- Flight II	
Continued training in the maneuvers and procedures necessary to meet the standards contained in the commercial pilot practical test standards, and training in cockpit resources management and safe flying practices.		
AE 4717	Commercial Flight III	3 (0-9-6)
Prerequisite:	AE 3221 Basic Flying: Single/ Multi-Engine- Flight II	
Continued training in the maneuvers and procedures necessary to meet the standards contained in the commercial pilot practical test standards, and training in cockpit resources management and safe flying practices.		
AE 4718	Commercial Flight IV	3 (0-9-6)
Prerequisite:	AE 3221 Basic Flying: Single/ Multi-Engine- Flight II	
Continued training in the maneuvers and procedures necessary to meet the standards contained in the commercial pilot practical test standards, and training in cockpit resources management and safe flying practices.		
AE 4721	Aircraft System: Fuel System	3 (2-3-6)
Basic fundamental theory and functional principle of fuel system, how to safely service aircraft with correct rated fuel and theory towards the maintenance of aircraft airframe fuel systems, advises on aircraft fuel systems removal, repair, and installation maintenance procedures and policies, diagnoses fuel system and component malfunctions, recommendations of corrective actions and resolutions of problems using technical		

publications and analytic techniques.

- AE 4723 Aircraft System: Stability and Weight & Balance System 3 (2-3-6)
Stability of aircraft based on basic physics and flight dynamics, basic of Weight and Balance (W&B), including tools, schedule and method, discussion of importance and problems.
- AE 4724 Aircraft System: Commercial Aircraft System 3 (3-0-6)
Overview of commercial aircraft system based on Boeing and Airbus technical training certification perspective. Focus on Boeing 737 and Airbus A320 series which start from concept of operation, control and indication panel, schematic and troubleshooting from selected systems.
- AE 4725 Aircraft System: Air Navigation 3 (3-0-6)
A unified treatment of the principles and practices of air navigation sensors and systems. Navigation equations, system design & characteristics, equipment configurations, sources of errors, and performance evaluation of such systems shall be covered. There is no specific prerequisite but a good understanding of undergraduate physics and mathematics is advantageous.
- AE 4726 Aircraft System: Propeller 3 (2-3-6)
Aircraft propellers, propeller theory, propeller configuration and type, propeller construction, assembly and installation, Pitch change mechanisms, governors: principles of operation and construction, damage and repair criteria propeller maintenance tasks.
- AE 4727 Aircraft System: Aircraft Gas Turbine Engine 3 (2-3-6)
Basic fundamental theory and functional principle of an aircraft power plant system, all the equipment which work together with the propulsion system, flow chart of power system which supports the aircraft power, functional principle of each part and how to perform maintenance on power plant system.
- AE 4731 Commercial Pilot License Instructor: Flight I 3 (0-9-6)
Prerequisite: Obtain Commercial Pilot License Single-Engine and instrument rating
 AE 4700 Commercial Pilot License Instructor
Training in the maneuvers and procedures necessary to meet the standards contained in the flight instructor practical test standards, Single-Engine Land with Instrument Airplane Rating, training in cockpit resources management and safe flying practices, associated ground instructions which include completion of the fundamentals of instruction, the flight instructor airplane, and the flight instructor instrument written test.
- AE 4732 Commercial Pilot License Instructor: Flight II 3 (0-9-6)
Prerequisite: Obtain Commercial Pilot License multi-engine and instrument rating
 AE 4700 Commercial Pilot License Instructor
Training in the maneuvers and procedures necessary to meet the standards required to add the Multi-Engine Flight Instructor Rating, additional instruction in advanced multi-engine flight crew training techniques including cockpit resources management and safe flying practices.
- AE 4821 Aircraft System: Aircraft Electrical System 3 (2-3-6)
Basic fundamental theory of aircraft electrical system technology, equipment and sources

of electrical supply using in aviation, electrical flow chart and how to understand the communication.

AE 4904 Special Problems in Aeronautics Engineering I 3 (3-0-6)
Selected problems in aeronautics engineering. Students will be supervised to do research on certain problems in aeronautics engineering.

AE 4907 Aeronautics Engineering Industrial Training 3 (0-15-5)
Prerequisite: Consent of the Chairperson
Student needs to apply for internship from Company that dealing in Aeronautics Engineering field. Student needs to submit a full report regarding their duty assigned to the responsible faculty.

AE 4908 Aircraft System: Practical Verification 3 (0-15-5)
Practice of the theoretical knowledge in "Aircraft System Aircraft". The practical assignment related to the topic is given.

AE 4909 Aircraft Maintenance: Practical Verification 3 (0-15-5)
Practice of the theoretical knowledge in "Aircraft Maintenance Aircraft". The practical assignment related to the topic is given.

AE 4910 Special Problems in Aeronautics Engineering II 3 (3-0-6)
Selected problems in aeronautics engineering. Students will be supervised to do research on certain problems in aeronautics engineering.

AE 4911 Special Problems in Aeronautics Engineering III 3 (3-0-6)
Selected problems in aeronautics engineering. Students will be supervised to do research on certain problems in aeronautics engineering.

AE 4930 Advanced Topics in Aeronautics Engineering I 3 (3-0-6)
Most current advancements in a particular field of study as determined by the instructor of the course. The topic of each semester depends on the varied interests of the students or the research requirements.

AE 4933 Advanced Topics in Aeronautics Engineering II 3 (3-0-6)
Most current advancements in a particular field of study as determined by the instructor of the course. The topic of each semester depends on the varied interests of the students or the research requirements.

AE 4934 Advanced Topics in Aeronautics Engineering III 3 (3-0-6)
Most current advancements in a particular field of study as determined by the instructor of the course. The topic of each semester depends on the varied interests of the students or the research requirements.

ART 1208 Computer Graphic Foundation 3 (2-2-5)
Introduction to computer for design, software and hardware, vector and raster-based graphics and its nature, digital file development, principles of graphics design process, techniques and printing options.

ART 2311	Photography	3 (2-2-5)
An introduction to photography in regards to history, fundamental concepts and techniques of photographic equipment and materials. Develop basic camera operations and photographic composition.		

BAC 1601	Fundamentals of Financial Accounting	3 (3-0-6)
The course is designed to introduce to students in the fundamentals of accounting, to develop an understanding of the basic concepts underlying business transactions and financial statements, and to determine the most appropriate financial measures for those events.		

BAC 3602	Intermediate Accounting I	3 (3-0-6)
Prerequisite:	BBA 1125 Fundamentals of Financial Accounting	
Conceptual framework for financial reporting , accounting principles, practices and problems of accounting for assets: definition, classification, recognition, measurements, valuation, impairment of assets, presentation and disclosure of assets in statement of financial position, accounting for cash, marketable securities, notes receivable, accounts receivable, merchandise inventory, financial asset, tangible and intangible assets, natural resources, different methods of depreciation, difference between capital and revenue expenditure, and preparation and presentation of financial statements in detail and good format.		

Prerequisite: BBA 1125 Fundamentals of Financial Accounting
Conceptual framework for financial reporting , accounting principles, practices and problems of accounting for assets: definition, classification, recognition, measurements, valuation, impairment of assets, presentation and disclosure of assets in statement of financial position, accounting for cash, marketable securities, notes receivable, accounts receivable, merchandise inventory, financial asset, tangible and intangible assets, natural resources, different methods of depreciation, difference between capital and revenue expenditure, and preparation and presentation of financial statements in detail and good format.

BAC 3603	Intermediate Accounting II	3 (3-0-6)
Prerequisite:	BBA 1125 Fundamentals of Financial Accounting	
Accounting principles and practices in accounting for short term liabilities, long term liabilities and owner's equity: definition, classification, recognition, measurements, valuation, presentation and disclosure on financial statements, accounting for partnership: organization, operation, dissolution, liquidation, financial statements preparation and presentation, accounting for corporation: organization, issuance of stock, increase and decrease of capital, additional paid- in capital, earnings per share, retained earnings, appropriated retained earnings, liquidation, and statements of change in shareholders' equity , preparation and presentation, accounting for employee benefits, and lease accounting		

Prerequisite: BBA 1125 Fundamentals of Financial Accounting
Accounting principles and practices in accounting for short term liabilities, long term liabilities and owner's equity: definition, classification, recognition, measurements, valuation, presentation and disclosure on financial statements, accounting for partnership: organization, operation, dissolution, liquidation, financial statements preparation and presentation, accounting for corporation: organization, issuance of stock, increase and decrease of capital, additional paid-in capital, earnings per share, retained earnings, appropriated retained earnings, liquidation, and statements of change in shareholders' equity, preparation and presentation, accounting for employee benefits, and lease accounting

BAC 3608	Financial Report and Financial Statement Analysis	3 (3-0-6)
Prerequisites:	BBA 2101 Fundamentals of Managerial Accounting BFN 3101 Corporate Finance	

Prerequisites: BBA 2101 Fundamentals of Managerial Accounting
BFN 3101 Corporate Finance

Reading and interpreting financial statements, analyzing, criticizing departmental financial matters, stockholders' equity, investment, capital expansion, and division of profit, analysis and interpretation of financial statements, techniques employed in financial statement analysis, presentation of reports to stockholders and interested public, the principles employed in analyzing assets from the viewpoint of investment, profitability and other factors that affect price of securities, forecasting and analysis of security market environment, and critical problem solving.

BAC 3614	Taxation I	3 (3-0-6)
Prerequisite:	LLB 1501 Business Law (For Non-Law students)	
Factors relating to	taxes paid by individuals and business enterprises: principles and	
features of taxation	according to Revenue Codes; methods of various tax liability appraisal	
and collection such	as personal income tax, corporate tax, business tax, custom, excise	

Prerequisite: LLB 1501 Business Law (For Non-Law students)

Factors relating to taxes paid by individuals and business enterprises: principles and features of taxation according to Revenue Codes; methods of various tax liability appraisal and collection such as personal income tax, corporate tax, business tax, custom, excise

BAC 3615	Taxation II	3 (3-0-6)
Prerequisites:	BBA 1103 Fundamentals of Financial Accounting BAC 3614 Taxation I	

BAC 3626	Hotel Accounting	3 (3-0-6)
Prerequisite:	BBA 1103 Fundamentals of Financial Accounting	

BAC 3629	Profit Planning and Control	3 (3-0-6)
Prerequisite:	BBA 2101 Fundamentals of Managerial Accounting	

BAC 3632	Cost Accounting	3 (3-0-6)
Prerequisite:	BBA 2115 Fundamentals of Managerial Accounting	

BAC 3633	Cost Management	3 (3-0-6)
Prerequisite:	BAC 3632 Cost Accounting	

Cost concepts and scope of using cost accounting information for managerial planning and production control, analysis of costs for decision-making, including the use of such information for product pricing, mixed cost, absorption costing, direct costing, variable cost, fixed cost, cost – volume-profit analysis, variance analysis, performance evaluation, transfer pricing, capital expenditure planning, manufacturing expenses control, measurement and control of various work units.

BAC 3643	Auditing	3 (3-0-6)
Prerequisite:	BAC 3602 Intermediate Accounting I OR BAC 3603 Intermediate Accounting II	
Auditing conceptual framework, auditing standards, law and professional acts, roles and responsibilities of external auditors, accepting auditing jobs, professional ethics and accountability, audit planning, fraud and errors in auditing process, auditing reports and procedures: assets, liabilities, owners' equity, revenue and expenses, internal control, risk assessments, risk control as well as audit decision making and evidence accumulation, preparation of working paper, auditor's report, and guidelines on auditing by computer.		
BAC 3644	Internal Control and Internal Audit	3 (3-0-6)
Prerequisite:	BAC 3602 Intermediate Accounting I OR BAC 3603 Intermediate Accounting II	
Performance of an internal audit in terms of an independent appraisal function which serves to examine and evaluate the adequacy and effectiveness of an organization's system on internal control and its overall quality of performance, furnishing top management with analysis, appraisals, recommendations, counsel, and information concerning the activities audited, internal auditing process, internal auditing skills, management control and Introduction to Management Information Systems, and audit environment.		
BAC 4605	International Accounting	3 (3-0-6)
Prerequisite:	BBA 1103 Fundamentals of Financial Accounting BAC 2101 Fundamentals of Managerial Accounting	
Accumulation and recording of accounting data for business firms with multinational presence, including analysis and reporting of these by function, products, product lines and by country/location for proper presentation of operational results to top management, and update of International financial Reporting Standard--IFRS , interpretation of IFRS and accounting applied in Asian countries.		
BAC 4607	Advanced Accounting I	3 (3-0-6)
Prerequisites:	BAC 3602 Intermediate Accounting I BAC 3603 Intermediate Accounting II	
Specific accounting procedures: joint venture, consignment sale, installment sale, real estate, construction contract, funds accounting, not for profits organization, home office and branch accounting for both domestic and foreign countries, accounting procedures regarding currency exchange, accounting policy, change in accounting estimate, correction of errors, and preparation of financial statements from incomplete records.		
BAC 4608	Advanced Accounting II	3 (3-0-6)
Prerequisites:	BAC 3602 Intermediate Accounting I BAC 3603 Intermediate Accounting II	
Accounting principles and methods for business combination, investment in associated and subsidiary companies, preparation of consolidated financial statements, statement of realization and liquidation, accounting for statement of affairs, receiverships, accounting for foreign currency translation, accounting for trouble debt restructuring, preparation statement of change in stockholders' equity, comprehensive income statements, and statement of cash flows for both separated and consolidated statements.		

BAC 4609	Accounting Theory	3 (3-0-6)
Prerequisites:	BAC 3602 Intermediate Accounting I BAC 3603 Intermediate Accounting II	
Evolution, structure, and concept of accounting, emphasis on comprehensive theories with reference to design of holistic accounting systems, definitions and nature of the accounting and accounting theories, theory verification, accounting history, alternative accounting theories and the role of theories in financial accounting and standard setting in assets, liabilities, owner's equity, revenues including information disclosure in financial statements preparation.		
BAC 4611	Seminar in Accounting	3 (3-0-6)
Prerequisite:	BAC 4607 Advanced Accounting I	
Discussion and analysis of using accounting conceptual framework for financial reporting and financial reporting standards as guidelines for practice, contemporary, new, current, interesting accounting issues, updating new accounting standards, rules, regulations related to generally accepted accounting principles in both international and national levels, concepts and principles of code of conduct, code of best practice, and code of accounting professional ethics, practical problems in field of financial accounting, managerial accounting and related field, using case study, academic paper, article, and field research.		
BAC 4612	Accounting for Specific Enterprises	3 (3-0-6)
Prerequisite:	BAC 3602 Intermediate Accounting I BAC 3603 Intermediate Accounting II	
Characteristics of a specific enterprise. Principles and financial accounting practices, tax accounting, accounting systems, and internal control systems for assets, liabilities, owner's equities, and expenses. Performance reporting, presentation of financial position and disclosure for service, hospitality and tourism, agriculture business, logistics business and other interested business.		
BAC 4614	Tax Planning	3 (3-0-6)
Prerequisite:	BAC 3614 Taxation I BAC 3615 Taxation II	
Taxation planning for personal income tax, corporate income tax, withholding tax, value-added tax, and other types of taxes for paying tax accurately under revenue codes, and responsibility for society.		
BAC 4615	Seminar in Taxation	3 (3-0-6)
Prerequisite:	BAC 3614 Taxation I BAC 3615 Taxation II	
Discussion and analysis of interesting taxation topics based-on case studies, articles, and other related papers in Thailand and other countries, including a set of final taxation verdicts and widespread condemnation introduced by Central Tax Court of Thailand.		
BAC 4616	Business and Accounting Profession Ethics	3 (3-0-6)
Prerequisite:	BAC 3644 Internal Control and Internal Audit	
Introduce professional ethics in the accounting and business, discuss the fundamental ethical issues of business and society, roles and responsibilities of the accounting and auditing profession, ethical behavior by management, including legal and professional guidelines that address the ethical concerns of society.		

BAC 4634	Seminar in Management Accounting	3 (3-0-6)
Prerequisite:	BAC 3633 Cost Management	
Problems concerning the cost accounting system design, relationship, understanding, and cooperation from other work units involved in data collection and analysis for the purpose of designing a cost accounting system, as well as problems arising from the application of cost accounting concepts to various work systems.		
BAC 4641	Problems in Auditing	3 (3-0-6)
Prerequisite:	BAC 3643 Auditing	
Practices and problems in auditing, use of accounting principles in auditing financial statements, patterns for different types of industries, and statements of certified public accountant institutes that often raise important problems for accountants to consider, using case study analysis in teaching and learning.		
BAC 4643	Seminar in Auditing	3 (3-0-6)
Prerequisite:	BAC 4641 Problems in Auditing	
Review of auditing problems, principles and practices in auditing accounts, legal aspects in auditing, and other related topics including the current issues related to auditing.		
BAC 4645	Forensic Accounting and Fraud Auditing	3 (3-0-6)
Prerequisite:	BAC 3643 Auditing, and BAC 3644 Internal Control and Internal Audit	
Study of fundamental concept and practice of forensic accounting, including definition and classification, nature of fraud, characteristics of persons who commit fraud and their motivation, Meaning, motivation and indicator of financial statements fraud, scope, duty and responsibility for fraud auditor, and responsibilities of the executive committee and related party for financial statement fraud and other frauds. Prevention and controlling of financial statement frauds. Techniques and methodology in forensic auditing.		
BAC 4646	Accounting Information Systems	3 (3-0-6)
Prerequisites:	BAC 3643 Auditing BAC 3644 Internal Control and Internal Audit	
Nature, elements and procedures of the accounting information system including the rational data base concepts and design, system development and documentary techniques as well as the computer based information systems controls, computer fraud and its security, the design of data flow diagrams and system flowchart, accounting cycle of various transactions such as revenue, expenditure and production cycle, payroll cycle and reporting system.		
BAC 4647	Accounting Software Packages	3 (3-0-6)
Prerequisites:	BBA 1102 Data and Information Literacy BAC 4646 Accounting Information Systems	
A study on the utilization of computer software applications in accounting, including the systems of receivables, payable, payroll, cash, inventory and labor cost. The course will also study the process of using software applications from the designing of the chart of accounts, entering data, as well as the construction of financial and management reports available for the needs of management for decision-making.		

BAC 4648	IT Auditing	3 (3-0-6)
Prerequisites:	BAC 3643 Auditing BDM 2111Introduction to Management Information Systems	
Professional auditing work in terms of examining and analyzing computerized financial and non- financial operations in an enterprise to ensure the integrity and reliability of the computerized systems, understanding and appreciation of fundamental concepts of EDP audit, computer audit tools and techniques used in EDP audit, importance of control and audit of mini-and micro-computer systems, EDP controls, and concurrent auditing techniques.		
BAC 4652	Accounting Information System Analysis and Design for ERP Program	3 (3-0-6)
Prerequisite:	BAC 4646 Accounting Information system	
A study of concepts, methods, and principles of prevailing and the future trend of Enterprise Resource Planning (ERP) as well as an accounting application in the ERP system. The course also includes selecting ERP software, introducing ERP to an organization, and factors that would affect the success of ERP system in a firm. The course also focuses on applying ERP Software packages, and also study of sub-systems and how to integrate sub-systems into ERP.		
BAC 4653	Accounting Information System Development and Implementation	3 (3-0-6)
Prerequisite:	BAC 4646 Accounting Information System	
Concept and theory of development and implementing accounting information system for performance measurement and evaluation, measurement techniques in managerial accounting tools, value based management by applying accounting information		
BAC 4654	Data Analytics and Automation in Accounting Information System	3 (3-0-6)
Prerequisite:	BAC 4646 Accounting Information System	
Definition and important of data analytic and automation, utilize digital internal audit by using analytic robotic process automation, and cognitive intelligence to improve audit quality and manage risk more effectively.		
BAC 4655	Seminar in Accounting Information System	3 (3-0-6)
Prerequisite:	BAC 4646 Accounting Information System	
Discussion, analysis of problems and current topics relevant to technology applications in accounting information systems based on case studies, articles, and different types of documents in Thailand and other countries, Special problems in technology and accounting information systems, including professional ethics.		
BAC 4669	Accounting Internship	3 (135 Hours)
Prerequisites:	Senior standing (Accounting Major) Completion of at least 100 credits	
Accounting field work practice in organization of at least 135 hours, providing opportunity to students to gain knowledge and skills from the real-world of Accounting profession, application of accounting theory and concept, enhancing competencies in analyzing, synthesizing and problem solving in accounting profession under the actual situation.		

- BBA 1001 Business Exploration 3 (3-0-6)**
This is an introductory business course to explore different aspects of business including fundamental principles of organization, legal forms of business ownership, business activities concerning management, production, marketing, accounting, and finance. Business activities in practice and business potential exploration are designed as learning activities of this course.
- BBA 1003 Introduction to Microeconomics and Personal Finance 3 (3-0-6)**
Basic microeconomic concepts and theories, and their applications in personal finance and business settings. Topics include pricing mechanism, demand and supply analysis, elasticity, market equilibrium, consumer behavior, costs and profit-maximization, market structures, budgeting, consumption and income smoothing, saving and investment, and inter-generational wealth transfer and retirement planning.
- BBA 1004 Essential Marketing for Entrepreneurs 2 (2-0-4)**
Fundamental concepts of marketing, including ethical issues, challenges, trends, channels, tools, platforms, and strategy formulation to implement and enhance marketing performance of goods and services.
- BBA 1005 Essential Finance for Entrepreneurs 2 (2-0-4)**
Fundamental financial issues and tools in conducting business and essential financial issues including types and sources of capital raising, interest rate, loans, time value of money, financial statements analysis, financial planning, and project decisions.
- BBA 1006 Essential Economics for Entrepreneurs 2 (2-0-4)**
Application of economic theories in business. Topics included cost-benefit analysis, opportunity cost, demand and supply, competition and market structures, macroeconomic indicators and policies.
- BBA 1007 Data Analytics for Entrepreneurs 3 (2-2-5)**
Application of data analytics concept in business. The topics include data collection, data preparation /cleansing, application of basic statistical methods to data analysis, result presentation, and visualization.
- BBA 1010 Design Thinking in Business 3 (3-0-6)**
Understanding design thinking as a method to solve customer pain points and offer innovative solutions. Design thinking tools and phases are introduced. Innovation strategies and management are discussed for the process to ensure the development or acquisition of new products, processes, and innovation portfolios.
- BBA 1012 Entrepreneurial Marketing 3 (3-0-6)**
The course provides the fundamental knowledge of marketing for the business owner. The course will be focused on customer centric, innovations, utilizations of the opportunity, value creation, personalization, sustainability and impactful marketing mixes that meets beyond customer expectations by creating unique and creative marketing solutions to maximize the business growth.

BBA 1013	Entrepreneurial Finance (For Non-MSME Students)	3 (3-0-6)
Fundamental financial knowledge and financial tools for business including types of businesses, sources of fund raising, financial instruments, time value of money, working capital management, forecasting and planning for investment needs, financial statements analysis as well as capital budgeting and feasibility analysis in making an effective business decision.		
BBA 1014	The Art of Data for Business	3 (3-0-6)
Fundamental concepts of data visualization. The topics include the theories behind data visualization, data storytelling, infographics, contemporary techniques, and hands-on application in business.		
BBA 1020	Design Thinking Essentials	2 (2-0-4)
Understanding design thinking as a method to solve customer pain points and offer innovative solutions. Design thinking tools and phases are introduced. Innovation strategies and management are discussed for the process to ensure the development or acquisition of new products, processes, and innovation portfolios.		
BBA 1021	Design Thinking Workshop	1 (1-0-2)
Application of design thinking methods on business problems such as the development or acquisition of new products, processes, and innovation portfolios.		
BBA 1022	Building CEO and Leadership Essentials	2 (2-0-4)
Developing leadership skills and capabilities to effectively deal with dynamic and diverse business and organizational contexts. The course aims to introduce leadership approaches and train students to exercise suitable leadership styles to drive innovation and growth.		
BBA 1023	Building CEO and Leadership Workshop	1 (1-0-2)
Application of leadership approaches to drive innovation and growth.		
BBA 1024	Entrepreneurial Marketing Essentials	2 (2-0-4)
The course provides the fundamental knowledge of marketing for the business owner. The course will be focused on customer centric, innovations, utilizations of the opportunity, value creation, personalization, sustainability and impactful marketing mixes that meets beyond customer expectations by creating unique and creative marketing solutions to maximize the business growth.		
BBA 1025	Entrepreneurial Marketing Workshop	1 (1-0-2)
Application of marketing concepts such as customer centric, value creation, personalization and marketing mixes.		
BBA 1026	Entrepreneurial Finance Essentials (For Non-MSME Students)	2 (2-0-4)
Fundamental financial knowledge and financial tools for business including types of businesses, sources of fund raising, financial instruments, time value of money, working capital management, forecasting and planning for investment needs, financial statements analysis as well as capital budgeting and feasibility analysis in making an effective business decision.		

BBA 1027	Entrepreneurial Finance Workshop (For Non-MSME Students)	1 (1-0-2)
Application of financial concepts and tools such as time value of money, forecasting and planning for investment needs, and feasibility study.		
BBA 1028	The Art of Data Essentials	2 (2-1-4)
Fundamental concepts of data visualization. The topics include the theories behind data visualization, data storytelling, infographics, and contemporary techniques.		
BBA 1029	The Art of Data Workshop	1 (0-1-1)
Practical application of data visualization concepts such as data storytelling and infographics.		
BBA 1102	Data and Information Literacy	3 (2-2-5)
Fundamental concepts and hands-on learning of data and information literacy. Exploratory data analysis. Identification, location, evaluation, and usage of information for issue or problem at hand.		
BBA 1104	Fundamentals of Marketing	3 (3-0-6)
Prerequisite:	BBA 1001 Business Exploration	
Basic concepts of marketing consist of the components of marketing mix. The course content includes the basic knowledge of consumer behavior, target markets, product strategies, pricing strategies, channels of distribution strategies, integrated marketing communications strategies and the uses of information technology in marketing.		
BBA 1110	Seminar in Business I	1 (1-0-2)
Introduction to various business perspectives and current business trends, aiming to enhance the students' business knowledge.		
BBA 1111	Business Essential: A Design Thinking Approach	3 (3-0-6)
A comprehensive grasp of the essential concepts, principles, and methodologies that underpin contemporary business operations, preparing students for roles as proficient entrepreneurs and professionals. Fundamentals of design thinking with the principles, approaches of design thinking in the business context, a human-centered approach to innovation, nurturing skills in empathy, ideation, and prototyping for business purposes, hands-on practical experience of the design thinking process.		
BBA. 1112	Digital Literacy	3 (2-2-5)
Introduction of basic digital skills for office environments, online collaboration, basic internetworking and information security, and digital transformation trends.		
BBA. 1113	Mathematics for Business	3 (3-0-6)
Prerequisite:	BG 0012 or BG 0220	
Applications of linear functions, quadratic, exponential and logarithmic functions, financial mathematics and optimization methods including linear programming		

Microeconomic concepts and theories in making decisions at individual and market levels focusing on pricing mechanism, demand and supply analysis, elasticity, market equilibrium, consumer behavior, costs, productivity, profit-maximization, market structures, and the applications of microeconomic theories in business settings.

Interactive exploration of contemporary topics, trends, and issues within the realm of business focusing on topics related to career preparation, ethical dilemmas in business, corporate social responsibility, and other relevant topics.

Marketing basics and concepts, marketing environment, consumer buying behavior, customer value, product life cycle, market targeting, positioning, market segmentation, marketing mix, product, price, place, promotion, digital marketing tools, branding, brand communications, learning through workshop, project, gamifications, case study, and discussion.

Introduction to statistics, Descriptive statistics, Probability and sampling distribution, Interval estimate, Hypothesis testing, Analysis of variance, Correlation and linear regression, Chi-square test

Exploration of contemporary management principles and practices by adopting a forward-thinking approach; designed to equip students with indispensable skills of problem-solving and agile decision-making to respond effectively to rapid changes and disruptions in business contexts as competent and innovative managers.

Overall picture of economic systems and theories including gross domestic product, national income, economic growth, inflation, saving and investment, foreign exchange market, role of government and Central Bank in fiscal and monetary policies, aggregate expenditure, aggregate demand and supply, balance of trade, balance of payment, mechanism for allocating scarce resources, business cycle, international trade policies, basic economic development, economic problems, and economic decisions.

Conceptual framework for financial reporting, analysis of business transactions, using basic double-entry system in recording process to complete the accounting cycle: journalizing, posting to the ledgers and preparation of trial balance, adjusting entries, worksheets and closing entries, as well as special journals and preparation of basic financial statements and also including basic accounting theory pertaining to accounting for service and merchandising firms: cash, receivable, merchandise inventory, property, plant and equipment, natural resources, intangible assets, investments, liabilities, owner's equity,

and voucher system.

BBA 2001	Human Behavior	3 (3-0-6)
Basic psychological factors that relate to business specifically exploring concepts and theories in social psychology, behavioral sciences, cultural environment and leadership as applied in modern industrial organizations. It discusses issues related to employee motivation, skills development, performance appraisal and organizational planning that help in finding solutions to organizational, business and social problems.		

BBA 2102	Organization and Management	3 (3-0-6)
Prerequisite:	BBA1001 Business Exploration	
Importance of theories of organization and management in traditional perspectives and contemporary perspectives. Functions of management are emphasized including organizational strategy, organizational structure, human capital management, motivation and leading people in organization and controlling process and strategy.		

BBA 2103	Corporate Finance	3 (3-0-6)
Pre-requisite:	BBA2002 Economic and Financial Environment OR BBA 1003 Introduction to Microeconomics and Personal Finance (Only for Art students)	
Introduction to corporate financial management and a comprehensive overview of managerial perspectives for financial managers in making effective as well as ethical investment and financing decisions, including time value of money, risk and return, cost of capital, valuation of stocks and bonds, project evaluation using capital budgeting decision-analysis tools, risk analysis in project evaluation, impact of financial leverage on cost of capital and valuation, dividend policy, financial statement analysis, working capital management as well as the use of MS-Excel functions in helping calculating and making financial decisions.		

BBA 2105	Operations and Supply Chain Management	3 (3-0-6)
Pre-requisites:	BBA 2102 Organization and Management	
Basic concepts of operations management, productivity measurement, operations and process selection, forecasting, capacity planning, quality management, inventory management, project management, and supply chain management.		

BBA 2110	Seminar in Business III	1 (1-0-2)
Reinforcement of corporate social responsibility and sustainable business practices by actively engaging the students in CSR and ESG projects and applying the business knowledge to real world practice.		

BBA 2111	Navigating Global Business Environment	3 (3-0-6)
Prerequisite:	BBA 1123 Management in Dynamic Contexts	
Navigating the intricate realm of international business; emphasize the practical applications in real-world scenarios to foster the development of global business skills; identify potential opportunities and risks while comprehending the intricacies of cross-border operations, cultural diversity, economic trends, and geopolitical influences in the current interconnected global business environment.		

BBA 2112	Data Analytics Essentials	3 (2-2-5)
Prerequisite:	BBA1112 Digital Literacy	
Introduction of essential data analytics and visualization skills. The topics cover data acquisition, data cleansing and transformation, multi-dimensional data analysis, and data visualization.		
BBA 2113	Intercultural Communication and Negotiation	3 (3-0-6)
Prerequisite:	BBA1111 Business Essential: A Design Thinking Approach	
An immersive and skill-focused exploration of effective communication and negotiation across diverse cultural contexts aims at equipping students with practical skills to bridge intercultural gaps.		
BBA 2114	Financial Environment and Financial Planning	3 (3-0-6)
Prerequisite:	Completion of 30 credits	
Introduction to financial environment including financial system, financial institutions, financial instruments, financial markets, interest rates, principles of finance, time value of money as well as introduction to personal financial planning including meaning, importance, and process of personal financial planning, time value of money application, liquidity management, financial products and instruments, data collection and personal financial statement analysis, taxation, ethical and regulatory issues as well as roles and responsibilities of financial planners.		
BBA 2115	Fundamentals of Managerial Accounting	3 (3-0-6)
Prerequisite:	BBA 1125 Fundamentals of Financial Accounting	
Role that managerial accounting plays in servicing informational needs of managers in planning, organizing and controlling through study of systematic structuring of business decisions and identifying the information relevant to decision making, profit planning and budgeting, cost-volume-profit analysis, responsibility accounting, preparation statement of cash flows and segment report.		
BBA 2120	Seminar in Business IV	1 (1-0-2)
In-depth exploration of specialized topics and advanced concepts in business field designed to challenge and engage the students to solve intricate business problems.		
BBA 2121	Consumer Behavior and Insights	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice BBA 1112 Digital Literacy	
The critical thinking, creativity, and adept data analytics skills. The comprehensive exploration of the factors influencing consumer choices and preferences, psychological and socio cultural dimensions to unravel the complexities behind decision-making processes, through interactive discussions, and hands-on projects, analyzing the real-world consumer trends, harnessing data- driven methodologies to extract valuable insights. Synthesizing theory and practical application, emerging with a profound understanding of consumer behavior, poised to make informed strategic decisions in diverse industries.		
BBA 2122	Operations and Supply Chain Management	3 (3-0-6)
Prerequisite:	BBA 1123 Management in Dynamic Contexts	
Principles and practices of operations and supply chain management in the context of modern business environment including strategic importance of effective operations and supply chain management in achieving organizational goals and competitive advantage,		

introduction to logistics, operations management, sourcing, and environmental sustainability and application of data analytics to supply chain problems.

BBA 2123 Essential Strategies for Sustainable Business 3 (3-0-6)

Prerequisite: BBA 1123 Management in Dynamic Contexts

Essential skills to become a successful professional strategist; providing a solid foundation in strategic management by developing student's ability to think strategically, analyze the competitive environment, and recommend firm positioning and value creation, applying a case-based approach to reinforce understanding of various strategic tools and their implications; and encouraging student engagement through interactive discussions and presentations.

BBA 2124 Corporate Financial Management 3 (3-0-6)

Prerequisite: BBA 2114 Financial Environment and Financial Planning and
BBA 1113 Mathematics for Business
(For Martin de Tours School of Management and Economics Students)
BEC 1210 Macroeconomics I and BBA 1113 Mathematics for Business
(For Business Economics Students)
ENX 2221 Entrepreneurial Finance
(For Design and Digital Innovation Students)
BBA 1003 Introduction to Microeconomics and Personal Finance
(For other Non- Martin de Tours School of Management and Economics Students)

Introduction to corporate financial management and a comprehensive overview of managerial perspectives for financial managers in making effective as well as ethical investment and financial decisions, including time value of money, risk and return, cost of capital, stock and bond valuation, project evaluation using capital budgeting decision-analysis tools, risk analysis in project evaluation, impact of financial leverage on cost of capital and valuation, financial statement analysis, working capital management as well as the application of MS-Excel functions in making financial decisions.

BBA 2125 Developing Leadership and Sustainability Mindsets 3 (3-0-6)

Prerequisite: BBA 1123 Management in Dynamic Contexts

Essential skills and strategies to lead with purpose, emphasizing effective leadership practice, sustainable decision-making, and the deepening of ethical insights, guide students to embark on a journey of transformational growth through interactive learning, workshops, discussions, and exercises.

BBA 3111 Business Research 3 (3-0-6)

Prerequisite: BBA 1122 Statistics for Business

Business research for business decision-making and problem-solving. The course covers the necessary skills and requirements for a problem discovery, literature review, scope of research and relevant methods and techniques to design a research project, research tool, qualitative and quantitative data collection, data processing, data analysis and presentation of data in appropriate report format.

BBA 3410-3419 Law for Business 3 (3-0-6)

Contemporary concepts, approaches, applications and practices of law.

BBA 3420-3429	Health and Wellness for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in health and wellness.		
BBA 3430-3439	Biotechnology for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in biotechnology including agricultural and food applications.		
BBA 3440-3449	Digital Technology for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in digital technology.		
BBA 3450-3459	Engineering Technology for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in engineering technology.		
BBA 3460-3469	Design for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in design including architecture, interior design, industrial design and fashion design.		
BBA 3470-3479	Creative Arts for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in creative arts including music, dance, drama, photography, graphic design, visual arts and creative writing.		
BBA 3480-3489	Language and Culture for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in language, literature, history culture and the economy.		
BBA 4111	Entrepreneurship	3 (3-0-6)
Prerequisite:	Senior standing (Completed 118 credits)	
Unleash the entrepreneurial journey by blending theory and emphasizing on practice through the integration of class discussion, workshops, real-business practice, and project-based activities, cultivating entrepreneurship mindsets, searching for business opportunities, creating innovative ideas through data-driven insights, business strategies, feasibility studies, effective problem-solving skills with potent business plans.		
BBA 4401	Business Practicum I	3 (3-0-6)
Prerequisite:	Approval from the chairperson and academic advisor one semester in advance and Completion of 110 Credits	
A 1-semester hands-on internship opportunity (600 hours), offering a learning journey where business theoretical knowledge meets real-world application. Comprehension of specialized areas of business operations and management; ability to dissect complex business challenges and generate sound decisions; ability to work collaboratively in teams with strong communication and people skills; utilization of relevant digital tools to enhance business operations and decision-making; and application of relevant quantitative and qualitative analyses. Through collaboration with industry experts, students will work under the supervision of assigned mentors and successfully develop essential business skills and competencies while building a foundation for future careers. A formal report and presentation at the end of the internship period is a requirement.		
BBA 4402	Business Practicum II	3 (3-0-6)
Prerequisite:	Approval from the chairperson and academic advisor one semester in advance and Completion of 110 Credits	

Students registered for BBA 4402 must take BBA 4401 first or both subjects can be taken in the same semester.

A 1-semester hands-on internship opportunity (600 hours), offering a learning journey where business theoretical knowledge meets real-world application. Comprehension of specialized areas of business operations and management; ability to dissect complex business challenges and generate sound decisions; ability to work collaboratively in teams with strong communication and people skills; utilization of relevant digital tools to enhance business operations and decision-making; and application of relevant quantitative and qualitative analyses. Through collaboration with industry experts, students will work under the supervision of assigned mentors and successfully develop essential business skills and competencies while building a foundation for future careers. A formal report and presentation at the end of the internship period is a requirement.

BBA 4403 Business Practicum III 3 (3-0-6)

Prerequisite: Approval from the chairperson and academic advisor
one semester in advance and Completion of 110 Credits

A 1-semester hands-on internship opportunity (600 hours), offering a learning journey where business theoretical knowledge meets real-world application. Comprehension of specialized areas of business operations and management; ability to dissect complex business challenges and generate sound decisions; ability to work collaboratively in teams with strong communication and people skills; utilization of relevant digital tools to enhance business operations and decision-making; and application of relevant quantitative and qualitative analyses. Through collaboration with industry experts, students will work under the supervision of assigned mentors and successfully develop essential business skills and competencies while building a foundation for future careers. A formal report and presentation at the end of the internship period is a requirement.

BBA 4404 Business Practicum IV 3 (3-0-6)

Prerequisite: Approval from the chairperson and academic advisor
one semester in advance and Completion of 110 Credits

A 1-semester hands-on internship opportunity (600 hours), offering a learning journey where business theoretical knowledge meets real-world application. Comprehension of specialized areas of business operations and management; ability to dissect complex business challenges and generate sound decisions; ability to work collaboratively in teams with strong communication and people skills; utilization of relevant digital tools to enhance business operations and decision-making; and application of relevant quantitative and qualitative analyses. Through collaboration with industry experts, students will work under the supervision of assigned mentors and successfully develop essential business skills and competencies while building a foundation for future careers. A formal report and presentation at the end of the internship period is a requirement.

BBA 4405 Business Practicum V 3 (3-0-6)

Prerequisite: Approval from the chairperson and academic advisor
one semester in advance and Completion of 110 Credits

A 1-semester hands-on internship opportunity (600 hours), offering a learning journey where business theoretical knowledge meets real-world application. Comprehension of specialized areas of business operations and management; ability to dissect complex business challenges and generate sound decisions; ability to work collaboratively in teams with strong communication and people skills; utilization of relevant digital tools to enhance business operations and decision-making; and application of relevant quantitative and qualitative analyses. Through collaboration with industry experts, students will work under

the supervision of assigned mentors and successfully develop essential business skills and competencies while building a foundation for future careers. A formal report and presentation at the end of the internship period is a requirement.

BBA 4406 Business Practicum VI 3 (3-0-6)

Prerequisite: Approval from the chairperson and academic advisor
one semester in advance and Completion of 110 Credits

A 1-semester hands-on internship opportunity (600 hours), offering a learning journey where business theoretical knowledge meets real-world application. Comprehension of specialized areas of business operations and management; ability to dissect complex business challenges and generate sound decisions; ability to work collaboratively in teams with strong communication and people skills; utilization of relevant digital tools to enhance business operations and decision-making; and application of relevant quantitative and qualitative analyses. Through collaboration with industry experts, students will work under the supervision of assigned mentors and successfully develop essential business skills and competencies while building a foundation for future careers. A formal report and presentation at the end of the internship period is a requirement.

BDM 3201 Digital Business 3 (2-2-5)

Fundamental concepts and hands-on learning of software-driven, data-driven, and AI-driven digital transformation. Business process management, intelligent business process management, business process automation, blockchain and financial technology, business analytics, cloud computing, Internet of Things (IoT), 5G, artificial intelligence (AI) and machine learning, enterprise resource planning (ERP), robotic process automation (RPA), and cybersecurity.

BDM 3202 Digital Commerce 3 (2-2-5)

Fundamental concepts and hands-on learning of electronic commerce and mobile commerce. Platforms, marketplaces, channels, website, payment systems, enterprise resource planning, digital marketing, customer relationship management, customer experience management, and cybersecurity.

BDM 3203 Cybersecurity 3 (2-2-5)

Fundamental concepts and hands-on learning of cybersecurity for business and users. Threats, attacks, and vulnerabilities. Technologies and tools, architecture and design, identity and access management, risk management, cryptography, public key infrastructure (PKI), and Quantum cryptography.

BDM 3204 Enterprise Resource Planning 3 (2-2-5)

Fundamental concepts and hands-on learning of enterprise resource planning (ERP) systems for users. Business process management, human resource management, inventory management, sales and marketing management, purchasing and procurement management, financial and accounting management, warehouse and production management, and customer relationship management.

BDM 3205 Information Systems Strategy, Management, and Acquisition 3 (2-2-5)

Fundamental concepts and hands-on learning of information systems strategy, management, and acquisition. Exploration of issues and approaches toward acquisition, development, and implementation of plans and policies to achieve efficient/effective

information systems. Defining enterprise information systems infrastructure. Supporting strategic, administrative, and operational organizational needs. Assessing information systems infrastructures and emerging technologies to understand how they effects on organizational strategy. Information systems project management, the systematic methodology for initiating, planning, executing, monitoring and controlling, and closing projects. Processes, methods, techniques, and tools that organizations use to manage their information systems projects, and project management and collaboration software.

BDM 3206	Digital Business Process	3 (2-2-5)
Fundamental concepts of business process management, business process reengineering, and digital transformation. Case studies from various business industries and hands-on learning of business process diagram using digital drawing tools, and how to communicate effectively to business people.		

BDM 3207	Systems Analysis and Design	3 (2-2-5)
Prerequisite:	BBA 2112 Data Analytics Essentials	
Fundamental concepts and hands-on learning of systems analysis and design. Processes, methods, techniques, and tools for analysis of business requirements, project feasibility, system requirements, and conversion of these requirements into detailed system requirements and high-level design specifications. Structured software development life cycle (SDLC), object-oriented analysis and design (unified process/UML), agile methods, and Scrum framework.		

BDM 3208	Enterprise Resource Planning	3 (2-2-5)
Prerequisite:	BBA 1112 Digital Literacy	
Fundamental concepts and hands-on learning of enterprise resource planning (ERP) systems for users. Problems identification, alternatives evaluation, model selection, vendor selection, business requirements analysis, implementation issues, cost/benefit evaluation, and management perspective.		

BDM 3301	Data Analytics Fundamentals	3 (2-2-5)
Fundamental concepts and hands-on learning of Python programming and relational database management systems. Python interactive development environments, packages, data structures, mathematical operations, functions, control statements, graphics, and web scraping. Data cleansing, descriptive statistics and multivariate models. Relational database management systems, structured query language (SQL), and text file.		

BDM 3302	Data Management	3 (2-2-5)
Prerequisite:	BBA 1112 Digital Literacy	
Fundamental concepts and hands-on learning of data management. Data management platform, data governance, data architecture, data modeling and design, database and storage management, structured query language (SQL), data normalization and denormalization, data security, data integration and inter-operability, documents and content management, data warehousing and business intelligence, metadata management, and data quality.		

BDM 3303	Data Mining	3 (2-2-5)
Prerequisite:	BBA 2112 Data Analytics Essentials	
Fundamental concepts and hands-on learning of data mining. Business understanding, data understanding, data preparation, modeling, evaluation, and deployment. Association, classification, and clustering.		

BDM 3304	Systems Analysis and Design	3 (2-2-5)
Fundamental concepts and hands-on learning of systems analysis and design. Processes, methods, techniques, and tools for analysis of business requirements, project feasibility, system requirements, and conversion of these requirements into detailed system requirements and high-level design specifications. Structured software development life cycle (SDLC), object-oriented analysis and design (unified process/UML), and agile methods.		
BDM 3305	Big Data Analytics	3 (2-2-5)
Prerequisite:	BBA 2112Data Analytics Essentials	
Fundamental concepts and hands-on learning of big data analytics and cloud computing technologies. Big data platforms, tools, collection and ingestion, storage, analysis, preprocessing, processing, visualization, and deployment at scale.		
BDM 3306	Essential Logic for Data Professionals	3 (2-2-5)
Fundamental concepts and hands-on learning of programming logic, arithmetic operations, control statements, functions, reading/writing various file formats, modern data structures, data analysis and visualization packages.		
BDM 3401	Artificial Intelligence (AI)	3 (2-2-5)
Fundamental concepts and hands-on learning of artificial intelligence, machine learning, and computer vision. Challenges, approaches, tools, and applications in business, management, and economics.		
BDM 3402	Blockchain and Financial Technology	3 (2-2-5)
Fundamental concepts and hands-on learning of blockchain and financial technology. Emerging platforms, applications, cryptocurrencies, limitations, and opportunities. Applications in insurance, trading, banking services, and risk management.		
BDM 3403	Robotic Process Automation	3 (2-2-5)
Fundamental concepts and hands-on learning of robotic process automation development. Business process automation, recorder, development studio, plugin/extension, bot runner, and control center. Architecture, usability, integration, exception handling, security, configuration features, deployment features, and documentation.		
BDM 3404	Data Structures and Algorithms	3 (2-2-5)
Fundamental concepts and hands-on learning of Python programming, data structures, and algorithms. Python interactive environment, packages, data structures, mathematical operations, functions, control statements, and graphics.		
BDM 3405	Database Systems	3 (2-2-5)
Fundamental concepts and hands-on learning of relational database management systems and NoSQL databases. Data modeling and implementation, structured query language (SQL), data normalization and demoralization, data integrity, concurrency control, and database administrator. Column-oriented, key-value, document, and graph databases.		
BDM 3406	Mobile Application Development	3 (2-2-5)
Fundamental concepts and hands-on learning of mobile application development. Mobile application frameworks, user interface design, SDKs, interactivity communication, integration with back-end systems, user authentication and authorization, data services,		

geo-location, multimedia, verification and validation,
security, version-control systems, and business development plan.

BDM 3407 **Web Application Development** **3 (2-2-5)**
Fundamental concepts and hands-on learning of web application development. Web frameworks, web development techniques, n-tiers architecture, web development life cycle, version-control systems, and container technology.

BDM 3408 **Blockchain Development** **3 (2-2-5)**
Fundamental concepts and hands-on learning of blockchain programming. Structures, emerging platforms, applications, cryptocurrencies, smart contracts, and financial services.

BDM 3409 **Game Design and Development** **3 (2-2-5)**
Fundamental concepts and hands-on learning of game design and development. Design, implementation, testing, and documentation of 2D and 3D games using game engines and augmented reality (AR).

BDM 3410 **Low-code Development** **3 (2-2-5)**
Fundamental concepts and hands-on learning of low-code development. Rapid graphical user interface (GUI)-based software creation, configuration, and evaluation. Platforms, development, applications, security, and compliance.

BDM 3411 **Software Engineering** **3 (2-2-5)**
Fundamental concepts and hands-on learning of software engineering. Models, methods, requirement engineering, software design, software construction, software testing and test automation, software maintenance, software configuration management, software development process, and software quality.

BDM 3412 **UI/UX Design** **3 (2-2-5)**
Fundamental concepts and hands-on learning of a user interface (UI) and user experience (UX) design. UI design focuses on how the product is laid out, the layout of each screen, developing a style guide, and ensuring that consistent design language is used to maximize usability and the user experience. UX design focuses on how the product feels, ways to solve specific user problems and, ensuring the application flows logically from one step to the next across the application. UX design principles for augmented reality and virtual reality.

BDM 3413 **eSports** **3 (2-2-5)**
Fundamental concepts and hands-on learning of eSports. eSports platforms, players, streamers, teams, competitions, titles, and publishers.

BDM 3414 **Customer Experience Management** **3 (2-2-5)**
Fundamental concepts and hands-on learning of customer relationship management (CRM) and customer experience management (CXM). Understand, anticipating, and managing the needs of an organization's current and potential customers and the interactions between an organization and customers from the customers' perspective.

BDM 3415 **Business Intelligence** **3 (2-2-5)**
Prerequisite: **BBA 2112 Data Analytics Essentials**
Fundamental concepts and hands-on learning of business intelligence and analytics. Online

analytical processing, reporting, automated monitoring, dashboard, and query. Data analysis, data mining, text mining, predictive modeling, multivariate testing, forecasting, and optimization.

BDM 3416	Data Engineering	3 (2-2-5)

Fundamental concepts and hands-on learning of data engineering. Python programming, Unix shell script, web scraping, feature engineering, real-time data, batch data, data reservoir, data lake, data pipeline, structure query language (SQL), and persistence storage.

BDM 3417	Data Storytelling	3 (2-2-5)

Fundamental concepts and hands-on learning of data visualization and data storytelling. Value of and techniques in data and information visualization. Data insights communication.

BDM 3418	Digital Marketing Analytics	3 (2-2-5)

Fundamental concepts and hands-on learning of digital marketing technologies and analytics. Lead generation, capture, and nurturing. Search engine optimization (SEO), search engine marketing (SEM), social media marketing, pay-per-click advertising, website, landing pages, forms, customer relationship management, marketing automation platform, web analytics platform, email marketing platform, social media campaigns, email drip campaigns, and personalization.

BDM 3419	Text Mining	3 (2-2-5)

Fundamental concepts and hands-on learning of text mining. Information retrieval, natural language processing, name-entity recognition, association, sentiment analysis, and document clustering.

BDM 3420	Cloud Computing	3 (2-2-5)

Fundamental concepts and hands-on learning of cloud computing. Cloud configurations and deployment, management, maintenance, security, and troubleshooting.

BDM 3421	Internet of Things	3 (2-2-5)

Fundamental concepts and hands-on learning of Internet of Things (IoT). Frameworks, standards, applications, trends, regulation, privacy and security, business functions, market drivers and barriers, and business environments

BDM 3422	IT Infrastructure	3 (2-2-5)

Fundamental concepts and hands-on learning of information technology infrastructure. On-premises and cloud infrastructure. Computer components, system software, computer network, and security

BDM 3423	Penetration Testing	3 (2-2-5)

Fundamental concepts and hands-on learning of penetration testing. Computer networking, planning and scoping, information gathering and vulnerability identification, attacks and exploits, penetration testing tools, reporting, and communication.

BDM 3424	Innovative Technology Applications	3 (2-2-5)

Fundamental concepts and hands-on learning of artificial intelligence (AI), business process automation, the discussion of trending innovative and state-of-the-arts technologies, and

their applications in different business domains including opportunities and threats.

BDM 3481 Digital Business Internship I 3 (0-30-0)
Exploration of careers of interest and application of the knowledge and skills learned in the classroom in a work setting. Fostering of personal reflection as well as professional growth and development.

BDM 3482 Digital Business Internship II 3 (0-30-0)
Exploration of careers of interest and application of the knowledge and skills learned in the classroom in a work setting. Fostering of personal reflection as well as professional growth and development.

Digital Business Practicum for Digital Business Management Major Students

BDM 3483 Digital Business Internship III 3 (0-30-0)
Exploration of careers of interest and application of the knowledge and skills learned in the classroom in a work setting. Fostering of personal reflection as well as professional growth and development.

BDM 3484 Digital Business Internship IV 3 (0-30-0)
Exploration of careers of interest and application of the knowledge and skills learned in the classroom in a work setting. Fostering of personal reflection as well as professional growth and development.

BDM 3485 Digital Business Internship V 3 (0-30-0)
Exploration of careers of interest and application of the knowledge and skills learned in the classroom in a work setting. Fostering of personal reflection as well as professional growth and development.

BDM3486 Professional Seminar in Digital Business Management 1 (1-0-2)
Special seminar course tailored to provide in-depth and specialized knowledge and skills in the respective major fields through interactive workshop and training, aiming to develop the students' employability skills.

BDM 3498 Business Analytics in Real Estate 3 (2-2-5)
Prerequisite: BDM 3301 Data Analytics Fundamentals
 BDM 3303 Data Mining
 BRE 3201 Real Estate Business
 BRE 3205 Real Estate Development
The application of business data, and using statistical and machine learning models to transform data into business insights. The main objective is to determine which business datasets are useful and how they can be utilized to solve problems and increase efficiency, productivity, and revenue in business operation.

BDM 3499 Business Analytics and Global Strategies 3 (2-2-5)
Prerequisite: BDM 3301 Data Analytics Fundamentals
 BDM 3303 Data Mining
 BIE 3224 Managing Multinational Enterprises
The application of business data, and using statistical and machine learning models to transform data into business insights. The main objective is to determine which business datasets are useful and how they can be utilized to solve problems and increase efficiency,

productivity, and revenue in business operation.

BDM 4400-4409 Selected topics in Digital Business Management 3 (2-2-5)
Selected topics in technology in business. Topics are subject to change through the advancement of technology.

BEC 1110 Microeconomics I 3 (3-0-6)
Microeconomic concepts and theories in making decisions at individual and market levels focusing on pricing mechanism, demand and supply analysis, elasticity, market equilibrium, consumer behavior, costs, productivity, profit-maximization, market structures, and the applications of microeconomic theories in business settings.

BEC 1210 Macroeconomics I 3 (3-0-6)
Overall picture of economic systems and theories including gross domestic product, national income, economic growth, S-curve, inflation, saving and investment, foreign exchange market, role of government and Central Bank in fiscal and monetary policies, aggregate expenditure, aggregate demand and supply, balance of trade, balance of payment, mechanism for allocating scarce resources, business cycle, international trade policies, basic economic development, economic problems, and economic decisions.

BEC 1302 Basic Probability Theory and Statistics 3 (3-0-6)
Introduce probability and statistical theory and techniques to analyze univariate business and economic data. In particular, depicting and summarizing data using descriptive statistics such as central tendency, variation, shape, making valid generalizations from samples through statistical inference such as hypothesis testing and confidence interval construction; relating real word data with commonly used probability distributions. Theoretical concepts include probability, probability distribution, expected values, sampling distribution, estimation, law of large numbers, central limit theorem, and estimator properties such as unbiasedness, efficiency and consistency.

BEC 1401 Thinking as an Economist 3 (3-0-6)
How economists analyze real-world problems. Topics include Six Principles of Economics: Individuals act optimally, Competition works, Measurement matters, No free lunch, Government intervention with caution, Correlation is not causality. Three core concepts: rationality, marginal analysis, and optimization

BEC 2102 Economic Decision Making for Management 3 (3-0-6)
Prerequisite: BEC 1401 Thinking as an Economist
The course focuses on management decision making via applied economic tools and techniques, applies systematic frameworks for determining business area selection, choice of product and diversification, outsourcing, optimum output and price, industry analysis, technology choice, sales promotion, incentives to motivate executives and workers, strategic interaction with competitors, and building and sustaining the firm's competitive advantage.

BEC 2303 Fundamentals of Econometrics 3 (3-0-6)
Prerequisite: BEC 1302 Basic Probability Theory and Statistics
Introduction to statistical techniques of estimation and its applications in business and economics such as assessing the impacts of business strategies and policies on firm performance; practical issues when analyzing bivariate and multivariate business and

economic data; business and economics applications of linear regression models; regression model specification such as, the use of different functional forms and dummy variables; hypothesis testing; and the application of econometric methods to analyze data using software packages.

BEC 2304 Business and Economic Forecasting 3 (3-0-6)

Prerequisite: BEC 2303 Fundamental of Econometrics

Introduction to statistical techniques for analyzing time series business and economic data and forecasting their future values. Topics include modeling and forecasting trend and seasonality; characterizing and forecasting cycles; models and methods such as AR, MA, ARCH, Box-Jenkins, and VAR; evaluating and combining forecasts. Students need to use software packages in data analysis and forecasting.

BEC 2310 Calculus 3 (3-0-6)

Prerequisite: BBA 1113 Mathematics for Business

In-depth exploration of mathematical concepts such as functions, limits, continuity, differentiation, implicit differentiation, numerical methods utilizing Newton's approach, the application of Taylor's theorem for approximations, the analysis of convex and concave functions, fundamental principles of minimization and maximization, examination of the Riemann integral, comprehensive study of integration and differential equations, exploration of partial differentiation, scrutiny of gradient, meticulous examination of the Hessian matrix, and an intricate exploration of double integrals.

BEC 2311 Applied Econometrics 3 (3-0-6)

Prerequisite: BBA 1122 Statistics for Business

Apply statistical techniques of estimation and its applications in business and economics such as assessing the impacts of business strategies and policies on firm performance, practical issues when analyzing bivariate and multivariate business and economic data, business and economics applications of linear regression models; regression model specification such as, the use of different functional forms and dummy variables, and hypothesis testing. Detect real-world data issues when using classical regression analysis, such as multicollinearity, influential data, heteroscedasticity, autocorrelation, measurement errors, endogeneity, and non-linearity as well as approaches to address these issues such as instrumental variable, logit and probit regressions, and panel data estimation. Practical applications of all topics and how to choose the appropriate tool for an empirical study and interpretation of the estimated results obtained from econometric software.

BEC 2410 Economic Reasoning 3 (3-0-6)

Prerequisite: BBA 1114 Microeconomics OR BEC 1110 Microeconomics I
BBA 1124 Macroeconomics OR BEC 1210 Macroeconomics I
BBA 1113 Mathematics for Business

Key advanced microeconomic concepts, such as indifference curves, budget constraints, various elasticities, government intervention in markets and its effects on welfare and resource allocation, externalities; key advanced macroeconomic concepts, such as Keynesian theory, classical theory, the differences between these two theories, the tools and objectives of fiscal and monetary policies and their effects. Introduce sentential logic, a fundamental component essential for the analytical toolkit for subsequent courses.

BEC 3010 Professional Seminar in Business Economics 1 (1-0-2)

Special seminar course tailored to provide in-depth and specialized knowledge and skills in

business and economics through interactive workshop and training that aims to develop the students' employability skills.

BEC 3101 Firms, Competition and Market Structure 3 (3-0-6)

Prerequisite: BEC 2102 Economics Decision Making for Managers

How firms organize their operations and how external environments affect their decisions. Topics include the organization and structure of production; market structure; measurement of market concentration and industry analysis; competition issues, such as cartels and mergers; antitrust policy, and analysis of regulatory consequences.

BEC 3110 Microeconomics II 3 (3-0-6)

Prerequisite: BBA 1114 Microeconomics

BEC 2410 Economic Reasoning BEC 2310 Calculus

Theory of consumer choices such as analysis of consumer preference and utility maximization; theory of production such as profit maximization, cost minimization, and demand for factors of production; an analysis of general equilibrium and welfare economics.

BEC 3111 Game Theory 3 (3-0-6)

Prerequisite: BEC 3110 Microeconomics II

Concepts essential to economic decision-making under uncertainty, encompassing topics such as uncertainty modeling, expected utility theory, risk aversion, adverse selection, moral hazard, and intertemporal decision-making dynamics. Furthermore, the curriculum delves into advanced game theory, addressing static and sequential game structures, the establishment of Nash equilibrium, subgame perfection, and the nuanced analysis of strategies, including both pure and mixed strategies within the context of repeated games.

BEC 3112 Managerial Economics 3 (3-0-6)

Prerequisite: BBA 1114 Microeconomics OR BEC 1110 Microeconomics I

Management decision making via applied economic tools and techniques, applies systematic frameworks for determining business area selection, choice of product and diversification, outsourcing, optimum output and price, industry analysis, technology choice, sales promotion, incentives to motivate executives and workers, strategic interaction with competitors, and building and sustaining the firm's competitive advantage.

BEC 3113 Industrial Organization 3 (3-0-6)

Prerequisite: BEC 3112 Managerial Economics

How firms organize their operations and how external environments affect their decisions. Topics include the organization and structure of production; market structure; measurement of market concentration and industry analysis; competition issues, such as cartels and mergers; antitrust policy, and analysis of regulatory consequences.

BEC 3210 Macroeconomics II 3 (3-0-6)

Prerequisite: BBA 1124 Macroeconomics OR BEC 1210 Macroeconomics I

BEC 2410 Economic Reasoning

Modern macroeconomic theories such as Solow and Endogenous Growth Models, Keynesian Model, IS-LM Model, and AD-AS Model including Philips Curve and also illustrates implications of these theories on fiscal and monetary policies.

BEC 3301	Computer Tools for Economic Analysis	3 (2-2-5)
Prerequisite:	BEC 2310 Calculus	
An introductory exploration into programming languages commonly employed in the context of economic analysis. Encompassing fundamental components inclusive of syntax and data structures, the curriculum delves into rudimentary programming instructions. These instructions encompass, but are not limited to, processes such as input-output operations, arithmetic computations, conditional execution structures, repetitive or looping constructs, functions, and graphical data representation through plots.		
BEC 3311	Time series Analysis and Forecasting	3 (3-0-6)
Prerequisite:	BEC 2311 Applied Econometrics	
Statistical techniques for analyzing time series business and economic data and forecasting their future values, auto correlated data analysis, Box-Jenkins models (autoregressive, moving average, and autoregressive moving average models), analysis of seasonality, volatility models (ARCH, GARCH, etc.), co-integration and error correction model, and VECM. How to use software packages in data analysis and forecasting.		
BEC 3312	Business Intelligence	3 (3-0-6)
Prerequisite:	BEC 2311 Applied Econometrics BBA 2112 Data Analytics Essentials	
A blend of business and economics knowledge with econometric tools to transform data into information and then translates that information into business intelligence. Reshape business intelligence through project-based learning. Apply econometric techniques with a focus on practical implementation in the workplace, enhancing analytical skills for decision-making in dynamic economic environments.		
BEC 3314	Cost and Benefit Analysis	3 (3-0-6)
Prerequisite:	BBA 1114 Microeconomics BEC 3112 Managerial Economics	
Conceptual, analytical, and critical thinking skills needed to undertake cost-benefit analysis for evaluating projects/policies in real-world situations; gain a broad understanding of the economic theory underlying cost-benefit analysis, identification and valuation of costs and benefits, investment decision criteria, the social discount rate, and concept of social return on investment.		
BEC 3410	International Economics	3 (3-0-6)
Prerequisite:	BBA 1114 Microeconomics OR BEC 1110 Microeconomics I BBA 1124 Macroeconomics OR BEC 1210 Macroeconomics I BEC 2410 Economic Reasoning	
Theories and policies of international trade; from neoclassical trade theory to modern trade theory; absolute advantage versus comparative advantage, Heckscher-Ohlin Samuelson, the specific factors model, the standard trade model, and the new trade theory emphasizing imperfect market, economies of scale, and technology; heterogeneous firm model; discussion on vital trade-related issues such as Inter-and Intra-Industry Trade, global value chains, foreign direct investment, trade facilitation, and production networks; trade policies and strategies in developing and advanced countries; analysis of impacts of tariffs and nontariff measures; arguments for protection; trade negotiations, preferential trade agreements, and economic integration. International monetary theory, macroeconomics in open economy, balance of payments, foreign exchange market, Causes and consequences of exchange rate movements; asset-pricing exchange rate models and		

their main theoretical building blocks such as interest parity and purchasing power parity; currency crises, international financial markets, and instruments, international macroeconomic policies.

BEC 3411 Senior Project I 3 (3-0-6)

Prerequisite: BEC 3311 Time Series Analysis and Forecasting
BEC 3312 Business Intelligence

Development of analytical and research skills integrating what students have learned in the program to conduct a project with an applied area of economics. Skills include literature review, research methodology, data collection and data analysis, and report writing.

BEC 3412 Senior Project II 3 (3-0-6)

Prerequisite: BEC 3311 Time Series Analysis and Forecasting
BEC 3312 Business Intelligence

A thesis course in which students conduct a thesis that involves the study in-depth of a specific economic problem with the thesis supervisor.

BEC 4001 Business Economic Practicum I 3 (3-0-6)

A learning experience in which the student works in a business, educational, or professional setting, and performing tasks related to business or economics. A blend of theoretical knowledge and practical application, equipping students with essential skills to navigate the complexities of business or economic decision-making within a corporate environment.

BEC 4002 Business Economic Practicum II 3 (3-0-6)

A learning experience in which the student works in a business, educational, or professional setting, and performing tasks related to business or economics. A blend of theoretical knowledge and practical application, equipping students with essential skills to navigate the complexities of business or economic decision-making within a corporate environment.

BEC 4003 Business Economic Practicum III 3 (3-0-6)

A learning experience in which the student works in a business, educational, or professional setting, and performing tasks related to business or economics. A blend of theoretical knowledge and practical application, equipping students with essential skills to navigate the complexities of business or economic decision-making within a corporate environment.

BEC 4004 Business Economic Practicum IV 3 (3-0-6)

A learning experience in which the student works in a business, educational, or professional setting, and performing tasks related to business or economics. A blend of theoretical knowledge and practical application, equipping students with essential skills to navigate the complexities of business or economic decision-making within a corporate environment.

BEC 4005 Business Economic Practicum V 3 (3-0-6)

A learning experience in which the student works in a business, educational, or professional setting, and performing tasks related to business or economics. A blend of theoretical knowledge and practical application, equipping students with essential skills to navigate the complexities of business or economic decision-making within a corporate environment

BEC 4006 Business Economic Practicum VI 3 (3-0-6)

Prerequisite: Co-requisite of BEC 4005 Business Economic Practicum V

A learning experience in which the student works in a business, educational, or professional

setting, and performing tasks related to business or economics. A blend of theoretical knowledge and practical application, equipping students with essential skills to navigate the complexities of business or economic decision-making within a corporate environment.

BEC 4401 **Advanced Business Economics I** **3 (3-0-6)**
Advanced Business Economics explores sophisticated economic theories, strategic applications, and analytical tools essential for making informed business decisions in dynamic markets. Topics can vary depending on current issues of interests.

BEC 4402 **Advanced Business Economics II** **3 (3-0-6)**
Advanced Business Economics explores sophisticated economic theories, strategic applications, and analytical tools essential for making informed business decisions in dynamic markets. Topics can vary depending on current issues of interests.

BEC 4403 **Advanced Business Economics III** **3 (3-0-6)**
Advanced Business Economics explores sophisticated economic theories, strategic applications, and analytical tools essential for making informed business decisions in dynamic markets. Topics can vary depending on current issues of interests.

BEC 4404 **Advanced Business Economics IV** **3 (3-0-6)**
Advanced Business Economics explores sophisticated economic theories, strategic applications, and analytical tools essential for making informed business decisions in dynamic markets. Topics can vary depending on current issues of interests.

BEC 4405 **Advanced Business Economics V** **3 (3-0-6)**
Advanced Business Economics explores sophisticated economic theories, strategic applications, and analytical tools essential for making informed business decisions in dynamic markets. Topics can vary depending on current issues of interests.

BEC 4406 **Advanced Business Economics VI** **3 (3-0-6)**
Advanced Business Economics explores sophisticated economic theories, strategic applications, and analytical tools essential for making informed business decisions in dynamic markets. Topics can vary depending on current issues of interests.

BEC 4411 **Foundation in Business Economics Research** **3 (3-0-6)**
Builds essential skills and methodologies for conducting research in the field of business economics; explores key concepts in research design, data analysis, and academic writing, laying the groundwork for successful scholarly inquiry; equips students with the foundational tools necessary for undertaking impactful research studies within the business economic domain.

BEC 4412 **Business Economics Research Writing** **3 (3-0-6)**
Hon the research and writing skills essential for effective communication in the field; learn to articulate economic insights and present compelling arguments; aim to produce high-quality research papers, reports, and analyses suitable for the business and economic context.

BEC 4413 **Business Economics Research I** **6 (6-0-12)**
Conduct in-depth study of interests in the field of business and economics; gain hands-on experience in formulating research questions, collecting and analyzing data, and presenting

findings; elevate student's understanding of economic phenomena through a research-driven lens and preparing them for impactful academic contributions to the ever-evolving business landscape.

BEC 4414 Business Economics Research II 6 (6-0-12)
Conduct in-depth study of interests in the field of business and economics; gain hands-on experience in formulating research questions, collecting and analyzing data, and presenting findings; elevate student's understanding of economic phenomena through a research-driven lens and preparing them for impactful academic contributions to the ever-evolving business landscape.

BEN 3001 Entrepreneur and Innovation 3 (3-0-6)
An introduction to the concept and theory of entrepreneurship to understand the nature of entrepreneurship and the driving forces of new business success. Entrepreneurial design thinking process and business model development are introduced to develop an innovative and creative business model.

BEN 3201 Innovation and Design Thinking 3 (3-0-6)
Prerequisite: BA2102 Organization and Management
Systematic approach to business innovation and creative problem solving that can be used in developing new products, new services and new organizations of business. Design thinking tools are introduced to have self-development to become innovative thinker and to uncover business opportunities.

BEN 3202 Entrepreneurial Commercialization 3 (3-0-6)
Prerequisite: BBA1104 Fundamentals of Marketing
Knowledge and experience in practical sales and marketing efforts for entrepreneurs and young start-up companies including tactical issues in marketing, sales, and customer acquisition management, marketing analysis, customer selection, channel selection and management, pricing strategies, and selling strategies.

BEN 3303 Entrepreneurial Leadership 3 (3-0-6)
Prerequisite: BBA2102 Organization and Management
Examining the relationship between entrepreneurship and the entrepreneurial leader's role in driving innovation and growth. The course will facilitate development of capabilities to adapt leadership approaches/practices in a variety of business and organizational contexts.

BEN 3304 Project Management 3 (3-0-6)
Project planning procedure by considering factors in determining project objectives, setting of work system, allocation of resources, project feasibility analysis, matrix model organization, management techniques and operation procedures in accomplishing goal such as implementation, communication, coordination, controlling and evaluation of the project.

BEN 4213 Digital Entrepreneurship 3 (3-0-6)
Fostering innovation and entrepreneurship to develop new digital business and leverage digital technologies to create new business opportunities. Business models and strategies with emerging digital technologies are focused and applied in project-based learning process.

- BEN 4315** **Family Business Management** **3 (3-0-6)**
Importance of family business, dynamics of family business, relationship, leadership and communication issues in family business, management and governance of the family business, professionalism in family business, ownership legacy, succession, sibling rivalries management, wealth management concerns and innovation in family business.
- BFB 1001** **Information Technology and Digital Literacy** **3 (3-0-6)**
The approach to pursuit of happiness from personal experience and professional goals. Basic principles of positive psychology with recent scientific studies on happiness. Practical applications of the science of happiness for human relationships, lifestyles, and thinking habits. Philosophical views of happiness and recent scientific discoveries on happiness.
- BFB 1002** **Arts and Culture Appreciation** **3 (3-0-6)**
An exploration of the rich diversity of artistic and cultural expressions across the world fostering critical thinking and a deeper understanding of arts and cultural heritage, encouraging students to appreciate creativity's role in shaping human experiences and values.
- BFB 1003** **Communication and Presentation** **3 (3-0-6)**
Essential skills in effective communication and impactful presentations with the use of storytelling, and visual aids to enhance delivery in professional and academic settings.
- BFB 1004** **Business Law** **3 (3-0-6)**
Basic knowledge of business laws, the relation between laws and business, fundamental civil laws and criminal laws, civil laws on persons, properties and fundamental intellectual property, juristic acts, contracts, obligations, selected specific contracts which businesspersons should be aware of, introduction to the law of electronic commerce and introduction to the law of international trade.
- BFB 1005** **Ethics** **3 (3-0-6)**
Teachings of major world religions, the role of conscience, self-development in the moral arena, building self-esteem, self-knowledge, and good habits, distinguishing the right from the wrong, doing the right and refraining from the wrong, attaining a more fulfilling life.
- BFB 1101** **Design Thinking for Family Business** **3 (3-0-6)**
A comprehensive grasp of the essential concepts, principles, and methodologies that underpin contemporary business operations, preparing students for roles as proficient entrepreneurs. Fundamentals of design thinking with the principles, approaches of design thinking in the business context, a human-centered approach to innovation, nurturing skills in empathy, ideation, and prototyping for business purposes, hands-on practical experience of the design thinking process.
- BFB 1102** **Data Analytics** **3 (3-0-6)**
Introduction of essential data analytics and visualization skills. The topics cover data acquisition, data cleansing and transformation, multi-dimensional data analysis, and data visualization.
- BFB 1103** **Marketing and Branding for Family Business** **3 (3-0-6)**
Marketing basics and concepts, marketing environment, consumer buying behavior, customer value, product life cycle, market targeting, positioning, market segmentation,

marketing mix, product, price, place, promotion, digital marketing tools, branding, brand communications, learning through workshops, project, gamifications, case study, and discussion.

BFB 1104 Accounting for Entrepreneurs 3 (3-0-6)
Integrated set of theories and application of accounting for entrepreneurs are emphasized. Accounting issues for entrepreneurs related to fundamental accounting, cash flow and balance sheet management, and managerial accounting are included.

BFB 1105 Economics for Entrepreneurs 3 (3-0-6)
Integrated set of theories and application of economics for entrepreneurs are emphasized. Economic issues for entrepreneurs related to the cost-benefit analysis, opportunity cost, technology, gross domestic product, aggregate demand, and factors affecting macroeconomic environment are included.

BFB 2101 Digital Marketing 3 (3-0-6)
Introduction to principles and practices of integrated marketing communications. Examine the roles and functions of various marketing communications mix including advertising, sales promotion, public relations, digital marketing, and direct marketing to build and maintain brand equity. Topics include communication process, managerial framework for IMC campaign planning, promotional objectives and budgets, creative strategy, offline and online media planning strategy.

BFB 2102 Consumer Insight 3 (3-0-6)
Approaches to explore the behavior, preferences, and decision-making processes of consumers. Students will learn to gather and analyze data to uncover actionable insights, enabling businesses to create strategies that align with consumer needs and market trends.

BFB 2103 Family Business Leadership 3 (3-0-6)
This course focuses on developing leadership skills essential for inspiring and guiding teams toward achieving family business goals. Students will explore leadership theories, styles, and practices while learning to manage challenges, foster collaboration, and drive innovation in diverse environments.

BFB 2201 Financial Management for Family Business 3 (3-0-6)
This course focuses on the unique financial challenges faced by family-owned businesses. Students will learn how to manage financial resources, develop budgeting and forecasting strategies, handle taxation and wealth planning, and ensure long-term financial sustainability for family enterprises.

BFB 2202 Strategic Management and Commercialization 3 (3-0-6)
This course covers the development and execution of business strategies to create competitive advantages and successfully commercialize products or services. Students will learn how to assess market opportunities, manage resources effectively, and implement strategies for growth, profitability, and long-term success in both domestic and international markets.

- BFB 2203** **Internationalization and Growth Strategy** **3 (3-0-6)**
 This course focuses on strategies for expanding businesses into international markets and sustaining growth. Students will learn about market entry methods, global market analysis, cross-cultural management, and how to align business operations for scalability, ensuring long-term success in a competitive global environment.
- BFB 2204** **Succession Planning in Family Business** **3 (3-0-6)**
 This course focuses on the critical process of preparing the next generation for leadership roles in family-owned businesses. Students will explore the challenges of succession planning, strategies for identifying and developing future leaders, and methods to ensure a smooth transition while maintaining family harmony and business continuity.
- BFB 2205** **Governance and Conflict Management** **3 (3-0-6)**
 in Family Enterprises
 This course focuses on the importance of effective governance structures and conflict resolution strategies in family-owned businesses. Students will learn how to establish clear roles and responsibilities, manage family dynamics, and implement systems to prevent and resolve conflicts, ensuring the long-term stability and success of the enterprise.
- BFB 3101** **Supply Chain Management** **3 (3-0-6)**
 Definition and different levels of strategies, supply chain strategy, process thinking, global supply chain design, supply chain mapping and formulation, supply chain cost management, supply chain relationship management, and performance measurement matrix design and evaluation.
- BFB 3102** **Human Resource Management in Family Business** **3 (3-0-6)**
 In-depth understanding of managing human capital in the family business. Students will learn key principles and practices in recruitment, training, performance management, employee relations, and strategic HR planning to build and maintain an effective workforce.
- BFB 3103** **Digital Transformation in Family Business** **3 (3-0-6)**
 This course explores how digital technologies are reshaping business models, processes, and strategies. Students will learn how organizations leverage digital tools like data analytics, automation, and AI to enhance efficiency, innovation, and customer experience, preparing them for the future of business.
- BFB 3201** **Family Business Consulting Project** **3 (3-0-6)**
 This course provides students with the opportunity to apply their knowledge and skills to real-world family business challenges. Working in teams, students will analyze a family-owned business, identify key issues, and develop actionable recommendations to improve business operations, governance, and succession planning, while considering the unique dynamics of family enterprises.
- BFB 3202** **Business Plan Development for Family Enterprises** **3 (3-0-6)**
 The creation of comprehensive business plans tailored for family-owned businesses. Students will learn how to develop strategic plans that address both business growth and family dynamics.
- BFB 3203** **Seminar in Family Business Project** **3 (3-0-6)**
 In-depth exploration of specialized topics and advanced concepts in family business field designed to challenge and engage the students to solve intricate family business problems.

BFB 3204	Family Business Venture I	3 (3-0-6)
Practices setting short-term and long-term goals for family businesses based on the current market conditions and family dynamics. Students will learn how to develop sustainable strategies and action plans to drive growth and ensure the longevity of the business.		
BFB 3205	Family Business Venture II	3 (3-0-6)
Practices setting short-term and long-term goals for family businesses based on the current market conditions and family dynamics with the emphasis placed on aligning family values with business objectives, creating a roadmap for success, and adapting to evolving challenges in the family business environment.		
BFB 4300-4309	Selected Topic in Business Exposure	3 (3-0-6)
Practical insights of the business world through industry visits, and interactions with professionals and gain an understanding of the real-world business environment, including its challenges, trends, and operational strategies.		
BFB 4310-4319	Selected Topic in Multidisciplinary Skills	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in multidisciplinary areas equipping students with knowledge to solve problems, fostering adaptability, and collaboration in diverse professional settings.		
BFB 4320-4329	Selected Topic in Research for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in research for business		
BFB 4330-4339	Selected Topic in Digital Business Management	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in digital business management.		
BFB 4340-4349	Selected Topic in Real Estate Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in real estate business		
BFB 4350-4359	Selected Topic in Entrepreneurship and Innovation	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in entrepreneurship and innovation		
BFB 4360-4369	Selected Topic in Finance	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in Finance.		
BFB 4370-4379	Selected Topic in Global Business Management	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in global business management		
BFB 4380-4389	Selected Topic in Risk Management	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in risk management		
BFB 4390-4399	Selected Topic in Marketing	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in marketing		

BFB 4400-4409	Selected Topic in Hospitality and Tourism Management	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in Hospitality and Tourism Management.		
BFB 4410-4419	Selected Topic in Economics	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in economics		
BFB 4420-4429	Selected Topic in Advanced Data Analytics	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in data analytics		
BFB 4430-4439	Selected Topic in Law, Legal and Tax Planning	3 (3-0-6)
Contemporary concepts, approaches, applications and practices of law		
BFB 4440-4449	Selected Topic in Health and Wellness for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in health and wellness business		
BFB 4450-4459	Selected Topic in Biotechnology for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in biotechnology including agricultural and food applications.		
BFB 4460-4469	Selected Topic in Digital Technology for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in digital technology		
BFB 4470-4479	Selected Topic in Engineering Technology for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in engineering technology		
BFB 4480-4489	Selected Topic in Design for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in design including architecture, interior design, industrial design and fashion design.		
BFB 4490-4499	Selected Topic in Creative Arts for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in creative arts including music, dance, drama, photography, graphic design, visual arts and creative writing.		
BFB 4500-4509	Selected Topic in Language and Culture for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in language, literature, history culture and the economy.		
BFB 4510-4519	Selected Topic in Growth Mindset and Self Development	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in growth mindset and self-development.		
BFN 3211	Investment Strategy and Applied Valuation	3 (3-0-6)
Pre-requisite:	BBA 2103 Corporate Finance	
Fundamental knowledge of investment: definitions, theories, implementations, and decision making in financial markets including philosophical basis of investment principles, risk and		

expected return relationship, company and securities analysis: valuation frameworks and methodologies, portfolio management theory: management, analysis and strategy, capital market theory and capital market efficiency, fixed income valuation as well as introduction to derivative securities.

BFN 3212 Financial Reporting and Analysis 3 (3-0-6)

Prerequisite: BBA 2103 Corporate Finance

Corporate financial reporting and financial statement analysis relating to financial reporting mechanics and financial reporting standards in line with International Financial Reporting Standard (IFRS) framework, financial statement analysis and interpretation of financial disclosures to help improving risk assessment, forecasting, and decision-making as well as to determine how the firms' particular accounting choices reflect the underlying performance of the firms including topics on assets and liabilities side, revenue and expense recognition, computation of basic and diluted earnings per share, analysis of cash flows statement, income taxes, employee compensation, intercorporate investments, multinational operations, application of financial statement analysis and evaluation of financial reports' quality.

BFN 3213 Business and Economic Analysis for Decision Making 3 (3-0-6)

Prerequisites: BBA 2103 Corporate Finance

Understanding the working of macroeconomic system to encapsulate the changes in economic environment caused by fluctuations in business activities and policy responses and to analyze the effects of economic performance including trends, opportunities, and threats on industries in both real and financial sectors using economic models and the relevant analysis tools in making effective business and financial decisions.

BFN 3220 Investment Strategy and Applied Valuation 3 (3-0-6)

Prerequisite: BBA 2103 Corporate Finance and Completion of 80 credits

Fundamental knowledge of investment: definitions, theories, implementations, and decision making in financial markets including philosophical basis of investment principles, risk and expected return relationship, company and securities analysis: valuation frameworks and methodologies, portfolio management theory: management, analysis and strategy, capital market theory and capital market efficiency, fixed income valuation as well as introduction to derivative securities.

BFN 3221 Business and Economic Analysis for Decision Making 3 (3-0-6)

Pre-requisite: BBA 2002 Economic and Financial Environment
BBA 1003 Introduction to Microeconomics and Personal Finance
(Only for Arts students) and Completion of 90 credits

Understanding the working of macroeconomic system to encapsulate the changes in economic environment caused by fluctuations in business activities and policy responses and to analyze the effects of economic performance including trends, opportunities, and threats on industries in both real and financial sectors using economic models and the relevant analysis tools in making successful business and financial decisions.

BFN 3222 Financial Modeling and Analysis Tools 3 (3-0-6)

Prerequisites: BBA 2103 Corporate Finance and completion of 80 credits

An introduction to the use of spreadsheets in an application of finance and accounting, including basic skills of using spreadsheets to more complicate financial models for financial analysis and decision-making such as using formulas, functions and commands of MS-Excel

for financial calculation to analyze the impacts of financial decisions related to financial statement analysis, cash budgeting, cost of capital, capital budgeting, and capital structure.

BFN 3223 Advanced Financial Management 3 (3-0-6)

Pre-requisite: BBA 2103 Corporate Finance and Completion of 90 credits

Advanced knowledge of corporate financial management covering financial forecasting and planning, investment banking process, start-up financing, lease financing, hybrid financing, risk analysis in capital budgeting and real options, pension plan management, financial management in not-for-profit businesses, analysis of capital structure theories and dividend theories as well as merger analysis.

BFN 3412 Insurance and Retirement Planning 3 (3-0-6)

Prerequisite: BBA 2103 Corporate Finance

Insurance planning including law and regulatory issues, importance and roles of insurance in financial planning, risk exposure identification and evaluation, risk management techniques and insurance products as well as insurance planning process along with retirement planning including law and regulatory issues, importance of retirement planning, analysis of retirement needs, retirement planning techniques and products as well as retirement planning process.

BFN 3421 Financial Feasibility Planning 3 (3-0-6)

Prerequisites: BBA 2103 Corporate Finance and Completion of 80 credits

Application of financial modeling to build, analyze and assess financial structure, financial projection and financial feasibility in order to propose to potential investors in fund raising process as well as practices and techniques for project management in sophisticated fund-raising process proposed to financial institutions.

BFN 3422 Tax and Estate Planning 3 (3-0-6)

Prerequisites: BBA 2103 Corporate Finance

Tax planning including personal taxation, tax planning basics, legal issues, effective tax management strategies and techniques, and tax planning process along with estate planning including importance of estate planning, legal issue, estate planning distribution, estate planning techniques, strategies and management as well as estate planning process.

BFN 3423 Business Finance for Entrepreneurs 3 (3-0-6)

Prerequisites: BBA 2103 Corporate Finance and Completion of 80 credits

Business Financial knowledge for entrepreneurs including types and characteristics of business organization, analysis of costs, revenues, breakeven, profit in conducting business, financial statement analysis, time value of money, capital budgeting analysis, working capital management, cash flow estimation, funds raising for casting additional fund needed, and estimation of corporate value and its stock price.

BFN 3431 Behavioral Finance 3 (3-0-6)

Prerequisite: BFN 3220 Investment Strategy and Applied Valuation

A study of how individuals and firms make financial decisions in which these decisions might deviate from those predicted by traditional financial or economics theories, existence of psychological biases in financial decision-making, examination of the impacts of these biases on the financial markets and other financial settings, theories and practices of behavioral finance, biases driving human behavior, prospect theory, common investment

mistakes, practical applications of behavioral finance and investigation of how insights of behavioral finance complement traditional finance paradigm.

BFN 4411 Fixed Income Securities 3 (3-0-6)
Prerequisite: BBA 2103 Corporate Finance and Completion of 100 credits
Fixed-income essentials, valuation of debt instruments, risk considerations, asset-backed securities, term structure analysis and fixed-income portfolio management.

BFN 4412 Real Estate Investment and Entrepreneurs 3 (3-0-6)
Prerequisite: BFN 3220 Investment Strategy and Applied Valuation
 and Completion of 100 credits
Real estate valuation, real estate investment and management, legal aspects of real estate, discounted cash flow and real estate valuation models, appraisal reporting and related parties, analysis of risk-return characteristics of real estate development, construction of real estate portfolios, diversification in real estate, efficiency of real estate market, financial modeling and decision making, real estate portfolio strategies as well as real estate investment trusts and performance measurement.

BFN 4421 Portfolio Management and Analysis 3 (3-0-6)
Prerequisite: BFN 3220 Investment Strategy and Applied Valuation
 and Completion of 100 credits
Portfolio management, theories and models, portfolio construction, optimum portfolio and selection process, single-index model and multi-index model, asset pricing model, portfolio performance measurement as well as developing and testing investment strategies.

BFN 4422 Individual Research in Finance 3 (3-0-6)
Prerequisite: Department approval and Completion of 121 credits
Individual research conducted by applying theoretical financial theories and framework to real world organization in the finance industry in Thailand, with a specific area of concentration selected by students upon the approval of a supervisor assigned by Department of Finance with the requirement of a submission of a typewritten report and analysis as well as a professional presentation at the end of the academic semester.

BFN 4431 Startup Finance and FinTech 3 (3-0-6)
Prerequisite: BBA2103 Corporate Finance and Completion of 100 credits
Financial technology driven business models for startup businesses including product creation, product delivery, laws and regulations, fundraising, challenging and opportunities, and financial innovation tools.

BFN 4432 Investment Banking 3 (3-0-6)
Prerequisites: BFN3220 Investment Strategy and Applied Valuation
 and Completion of 100 credits
Management, structure, theories, practices and spreadsheet skills of investment banking: due diligence, initial public offering, financing and investing, valuation methodologies, mergers and acquisitions, leveraged buyouts, tax implications and dealing structure report.

BFN 4433 Internship in Finance 3 (300 hours)
Prerequisites: Department approval and Completion of 121 credits
Extension of theories beyond in-class teaching and learning activities to gain valuable real-

world experience from the finance industry approved by Department of Finance with certain criteria and requirements prior to join the internship program with the organization.

BFR 2231 Business Strategic Analysis and Sustainable Finance 3 (3-0-6)

Prerequisite: BBA 1124 Macroeconomics and
BBA 2114 Financial Environment and Financial Planning

Strategic analysis including comprehensive business strategic thinking, analysis, and development of actionable strategies for business success as well as sustainable finance including theories, concepts, principles, challenges, and opportunities associated with seeking positive environmental and social impacts required for resourceful decision-making in a dynamic business environment.

BFR 3121 Professional Seminar in Finance and Risk Management 1 (1-0-2)

Contemporary issues in finance by applying theories into the real-world practices including corporate governance, business sustainability, sustainable finance, risk management, venture capital, merger and acquisition, financial law, investment banking, financial simulation, quantitative methods for analysis and decision making, and current development in finance industry.

BFR 3131 Investment Management and Analysis 3 (3-0-6)

Prerequisites: BBA2124 Corporate Financial Management
and Completion of 70 credits

Fundamental investment knowledge including definitions, theories, implementations, and investment decision making in financial markets, philosophical basis of investment principles, risk and expected return relationship, company and securities analysis, investment strategies and analysis, investment products, alternative investment, market efficiency, asset pricing models, and introduction to portfolio management, behavioral finance, fixed income securities, and derivatives.

BFR 3132 Risk Management and Insurance 3 (3-0-6)

Prerequisite: BBA 2114 Financial Environment and Financial Planning

Basic concepts of risk management and insurance, terminologies used in risk management and insurance, functional operations of insurers, fundamental legal principles, insurance contract, basic characteristics of insurance such as life and health insurance, property and liability insurance, and government insurance.

BFR 3133 Financial Reporting and Analysis 3 (3-0-6)

Prerequisite: BBA 2124 Corporate Financial Management
and Completion of 70 credits

Corporate financial reporting and financial statement analysis relating to financial reporting mechanics and financial reporting standards in line with International Financial Reporting Standard (IFRS) framework, interpretation of financial disclosures to help improving risk assessment, forecasting, and decision making as well as to determine how the firms' particular accounting choices reflect the underlying performance of the firms including topics on assets and liabilities side, revenue and expense recognition, computation of basic and diluted earnings per share, analysis of cash flows statement, income taxes, employee compensation, intercorporate investments, multinational operations, application of financial statement analysis and evaluation of financial reports' quality.

BFR 3211	Tax and Estate Planning	3 (3-0-6)
Prerequisite:	BBA 2114 Financial Environment and Financial Planning	
Tax planning including personal taxation, tax planning basics, legal issues, effective tax management strategies and techniques, and tax planning process along with estate planning including importance of estate planning, legal issues, estate planning distribution, estate planning techniques, strategies, and management as well as estate planning process.		
BFR 3225	Advanced Financial Management	3 (3-0-6)
Pre-requisite:	BBA 2124 Corporate Financial Management and Completion of 90 credits	
Advanced knowledge of corporate financial management covering financial forecasting and planning, investment banking process, start-up financing, lease financing, hybrid financing, risk analysis in capital budgeting and real options, pension plan management, financial management in not-for-profit businesses, analysis of capital structure theories and dividend theories as well as merger analysis.		
BFR 3231	Investment Strategy and Valuation	3 (3-0-6)
Prerequisite:	BFR 3131 Investment Management and Analysis and Completion of 90 credits	
Advanced investment knowledge including equity analysis, industry and company analysis, strategic investment decision-making process, valuation frameworks, methodologies and techniques for business and equity, value investing, and other guru's investment techniques.		
BFR 3232	Financial Modeling and Analysis	3 (3-0-6)
Pre-requisite:	BBA 2124 Corporate Financial Management and Completion of 90 credits	
Financial modeling and tools used by investment banker or private equity in determining corporate financial standing, projecting future performance, techniques of estimating security price as well as modeling and valuation process of corporate merger and acquisition and leveraged buyout to make a rational investment decision.		
BFR 3241	Financial Risk Management	3 (3-0-6)
Prerequisites:	BFR 3231 Investment Strategy and Valuation and Completion of 90 credits	
Financial risk management including identifying, quantifying, assessing, managing risk, and application of risk management strategies using financial derivatives instruments such as forward, futures, options, swaps, credit default swap as well as other risk management methods such as value at risk, the Greek Letter, scenario analysis, and Monte Carlo Simulation.		
BFR 3242	Portfolio Management and Analysis	3 (3-0-6)
Prerequisite:	BFR 3131 Investment Management and Analysis and Completion of 90 credits	
Equity and fixed-income portfolio management, theories, models and practices, portfolio construction, optimum portfolio and portfolio selection process, portfolio performance measurement, developing and testing investment strategies, single-index model, multi-index model, asset pricing model, fixed-income essentials, valuation of debt instruments, and risk assessment and management.		

- BFR 3243** **Property and Casualty Insurance** **3 (3-0-6)**
Principles related to non-life insurance, types of non-life insurance, components of non-life insurance policies, including coverage, exclusions, and terms and conditions in each type of policy focusing particularly on property insurance and liability insurance
- BFR 3244** **Life and Health Insurance** **3 (3-0-6)**
Principles related to life insurance, life insurance contract, life insurance premium, life insurance policies and supplemental benefits, life insurance policy provisions, life insurance policy ownership rights, health insurance policy, accident insurance policy, and group insurance policy.
- BFR 3311** **Insurance and Retirement Planning** **3 (3-0-6)**
Prerequisite: **BBA 2114 Financial Environment and Financial Planning**
Insurance planning including law and regulatory issues, importance, and roles of insurance in financial planning, risk exposure identification and evaluation, risk management techniques and insurance products as well as insurance planning process along with retirement planning including law and regulatory issues, importance of retirement planning, analysis of retirement needs, retirement planning techniques and products as well as retirement planning process.
- BFR 4131** **Value Based Management and Financial Decisions** **3 (3-0-6)**
Prerequisite: **BFR 3231 Investment Strategy and Valuation**
 and Completion of 110 credits
Value-based management, corporate strategic management and financial decision, and theoretical financial and business framework applied in corporate financial decision making focusing on current issues in finance such as optimal capital structure, financial strategies, distribution policy, project capital budgeting, forecasting, risk analysis, valuation, corporate restructuring, tax implications, corporate governance, multinational financial management, and other topics related to corporate policies by applying case studies and current business environment.
- BFR 4141** **Business and Financial Data Analytics** **3 (3-0-6)**
Prerequisites: **BBA 2124 Corporate Financial Management**
 and Completion of 90 credits
Business and financial data analytics including necessary analytical skills and knowledge to understand and leverage data in various business contexts, data analysis, data visualization, financial modeling, predictive and descriptive analytics, decision making strategies, application of statistical and quantitative techniques to analyze financial data, gain insights into market trends in order to effectively drive business strategies and decision as well as evaluate business performance.
- BFR 4142** **Startup Finance and FinTech** **3 (3-0-6)**
Prerequisite: **BBA 2124 Corporate Financial Management**
 and Completion of 90 credits
Financial technology driven business models for startup businesses including financial innovative products and services, product delivery, laws and regulations, fundraising, capital raising alternatives, valuation, challenges and opportunities, and financial innovation tools.

Prerequisites: BBA 2124 Corporate Financial Management and Completion of 100 credits

BFR 4144	Operations in Non-Life Insurance	3 (3-0-6)

BFR 4145	Operations in Life Insurance	3 (3-0-6)

Prerequisite: BBA 2114 Financial Environment and Financial Planning

BFR 4146	Enterprise Risk Management	3 (3-0-6)

The definitions and applications of risks, risk management in business sector, risk management frameworks, process models, and international standards, focusing on class discussions addressing risk management techniques, roles of risk managers in organizations, and current issues in enterprise risk management.

BG 0008	General Chemistry Laboratory	1 (0-3-2)

Prerequisite or Co requisite: BG 1108 General Chemistry Experiments to be done according to BG 1108 General Chemistry

BG 1001	English I	3 (2-3-6)

Lower intermediate academic English, with activities to foster reading, writing, listening and speaking skills in English through communicative activities in a meaningful academic context.

BG 1002	English II	3 (2-3-6)

Prerequisite : BG 1001 English I

Intermediate academic English, reinforcing fluency and grammar with task-driven oral and writing exercises, developing vocabulary and sentence writing skills with combined reading comprehension exercises and writing practice.

BG 1108	General Chemistry	3 (3-0-6)
Stoichiometry and basis of the atomic theory; properties of gas, liquid, solid and solution; chemical equilibrium; ionic equilibrium; chemical kinetic; electronic structures of atoms; chemical bonds; periodic properties; representative elements; nonmetal and transition metals		

BG 1109	Principles of Chemistry	3 (2-3-5)
Stoichiometry and basis of the atomic theory; properties of gas, liquid, solid and solution; chemical equilibrium; ionic equilibrium; chemical kinetic; electronic structures of atoms; chemical bonds; periodic properties; representative elements; nonmetal and transition metals. Experiments to be conducted along the course.		

BG 1204	Calculus I	3 (3-0-6)
Limits, continuity, differentiation and integration of real-valued functions of a real variable and their applications, integration techniques, improper integrals.		

BG1205	Calculus II	3 (3-0-6)
Prerequisite:	BG 1204 Calculus I	
Sequences and series of real numbers, Taylor series expansion and approximation of elementary functions, parametric equations, polar equations, vector analysis, lines and planes in three-dimensional space, Matrices, determinants and inverse matrix, Calculus of vector valued functions, differential calculus of multivariable functions, linear integrals, surface integral and volume integrals.		

BG 1211	Physics I	3 (3-0-6)
Mechanics of particles and rigid bodies; properties of matters; fluid mechanics; heat; vibrations; waves		

BG 1212	Physics Laboratory I	1 (0-3-2)
Prerequisite or Co-requisite: BG 1211 Physics I Experiments to be done according to BG1211 Physics I		

BG 1213	Physics II	3 (3-0-6)
Prerequisite:	BG 1211 Physics I	
Elements of electromagnetism; alternating current (A. C.) circuits; fundamental electronics; optics; modern physics.		

BG 1214	Physics Laboratory II	1 (0-3-2)
Prerequisite or Co-requisite: BG 1213 Physics II Experiments to be done according to BG 1213 Physics II		

BG 1215	Principles of Physics I	3 (2-3-5)
Mechanics of particles and rigid bodies; properties of matters; fluid mechanics; heat; vibrations; waves. Experiments to be conducted along the course.		

Principles of Physics II	3 (2-3-5)
Prerequisite: BG 1211 Principles of Physics I	
Fundamental electromagnetics, alternating current circuits, basic electronics; optics; modern physics. Experiments to be conducted along the course.	

BG 1221	Computer Programming	3 (3-0-6)
Introduction to computer systems; problem-solving using computers; programming in high level languages; program structure, programming style and convention; control statements, data handling and processing; subprograms; classes and objects.		
BG 2000	English III	3 (2-3-6)
Prerequisite :	BG 1002 English II	
Advanced English for academic and career purposes, emphasizing organization of ideas and clarity of expression and understanding.		
BG 2001	English IV	3 (2-3-6)
Prerequisite :	BG 2000 English III	
Advanced English for academic and career purposes, emphasizing critical and analytical skills, and formulating logical and coherent opinions.		
BG 2207	Engineering Mathematics	3 (3-0-6)
Prerequisite:	BG 1205 Calculus II	
First-order and higher-order ordinary differential equations, difference equations, functions of complex variable and their applications in engineering		
BG 2208	Discrete Mathematics	3 (3-0-6)
Fundamental principles: Logic; set; proof; number theory; counting; probability; graph theory; machine and languages.		
BG 2212	Applied Statistics	3 (3-0-6)
Prerequisite:	BG 1204 Calculus I	
Sets and probability; random variables; probability distribution; continuous and discrete models; parameters approximation; reliability range; hypothesis tests; regression and linear correlation.		
BG 2214	Linear Algebra	3 (3-0-6)
Developments of concepts and applications of vectors, matrix algebra, systems of linear equations and solutions; vector spaces; eigenvectors and eigenvalues; orthogonality; tensors, tensor operations, tensor products; applications of Linear Algebra in engineering, artificial intelligence, and data science.		
BG 3301	Professional English in Engineering Technology	3 (3-0-6)
Technical words and phrases in engineering and technology; reading, writing, speaking, listening and presentation in professional contexts.		
BGB 3210	Professional Seminar in Global Business Management	1 (1-0-2)
Special seminar course tailored to provide in-depth and specialized knowledge and skills in the respective major fields through interactive workshop and training, aiming to develop the students' employability skills.		

BGB 3211	Diversity and Culture in Global Environment	3 (3-0-6)
Prerequisite:	Completion of 70 credits	
Theories and concepts of diversity and inclusion; generation; gender diversity; personality and values; cultural differences at the national, organizational, and managerial levels; regional and country cultural characteristics, complexities, and challenges of running global organizations; human resource practices across cultures and cultural frameworks applied to various aspects of human resource management in the international context.		
BGB 3212	Marketing Strategies for Global Ventures	3 (3-0-6)
Prerequisite:	Completion of 70 credits	
Developing advanced skills in analyzing global markets, consumers, and environment and identifying marketing opportunities, exploring the concept of segmentation, targeting and positioning in a globalized, multicultural environment, designing and managing marketing mix, and applying multiple decision-making tools and frameworks to formulate practical international marketing plans and strategies to gain competitive advantage, adopts a practical approach through workshops, projects, and industry linkage to develop professional skills.		
BGB 3221	Global Business Strategies	3 (3-0-6)
Prerequisite:	BGB 3211Diversity and Culture in Global Environment BGB 3212Marketing Strategies for Global Ventures	
The intricacies of doing business in different countries and environments, including the political, legal, cultural, and technological contexts faced by multinational enterprises (MNEs); the fundamentals of international strategic planning and implementation; and international expansion mode, using coursework and case studies to facilitate a better strengthening the understanding of the challenges confronted by global organizations when working and dealing with clients in diverse international business environments.		
BGB 3222	Strategic Export-Import Practices and Research	3 (3-0-6)
Prerequisite:	BGB 3212Marketing Strategies for Global Ventures	
Strategic understanding of international trade by focusing on export and import practices integrated with essential market research, covers fundamental export-import procedures, including regulations, documentation, logistics, and skills to gather, analyze, and interpret market data for informed decision-making in international trade.		
BGB 3310	Business Model Development	3 (3-0-6)
Designed to equip students with an in-depth understanding and advanced skills in business development strategies, focuses on sophisticated models, strategic frameworks and intricate techniques used in contemporary business environments with an emphasis on creating and executing successful business models and driving growth and competitive advantage within organizations.		
BGB 3311	Innovative Strategies for Talent Acquisition and Retention	3 (3-0-6)
Prerequisite:	BBA 1123 Management in Dynamic Contexts and Completion of 70 credits	
The cutting-edge approaches in the realm of talent management; advanced methodologies to identify, attract, and retain skilled individuals, gaining a comprehensive understanding of the evolving landscape of talent acquisition; the creation of a workplace culture that not only attracts high-caliber individuals but also fosters their long-term commitment.		

BGB 3312 Strategies for Effective Human Relationship 3 (3-0-6)
Management

Prerequisite: BBA 2113 Intercultural Communication and Negotiation
and Completion of 70 credits

The intricacies of fostering positive and productive workplace relationships in a global context; the exploration of advanced interpersonal dynamics, communication strategies, and conflict resolution techniques specific to the complex landscape of international business. Emphasizing an active learning pedagogy, this course goes beyond theoretical understanding, engaging students in practical exercises and real-world case studies. Students will develop the skills needed to navigate diverse global workplaces and contribute to the creation of harmonious, collaborative, and effective work environments.

BGB 3313 Lean Manufacturing and Agile Supply Chain 3 (3-0-6)

Prerequisite: BBA 2122 Operations and Sustainable Supply Chain Management
and Completion of 70 credits

Lean manufacturing systems, manufacturing waste management, designing lean process, materials planning and control, production process aspects, numerical data linkages in supply chain, business data analysis, determination of production schedule and dispatching, production control system, implementation, inventory management, demand management, and agile supply chain.

BGB 3314 International Transportation and Distribution 3 (3-0-6)
Management

Prerequisite: BBA 2122 Operations and Sustainable Supply Chain Management
and Completion of 70 credits

International transportation modes selection and management system, transportation routing analysis and management, microanalysis of logistics and transportation services, distribution operations, transportation costing, distribution networks management, intermodal transportation, transportation mode interface, domestic and international transportation law, international commercial terms (incoterms), and Greater Mekong Subregion Cross-Border Transportation Agreement (GMS CBTA)

BGB 3315 Global Context of Business 3 (3-0-6)

Prerequisite: Approval from the chairperson and academic advisor prior
to registering for the course.

Process of acquiring new skills and knowledge through international exposure. International field trip according to the language courses taken by students, 15-30 hours of course work seminars and industry visits in the host institution. 10-15 hours of preparation and presentation of project report based on the criteria established by the Department.

BGB 3316 Special Topics in Global Business Management 3 (3-0-6)

Prerequisite: Approval from the chairperson and academic advisor prior
to registering for the course.

Focuses on doing business in selected regions. Includes in-depth understanding of the business environment, management practices and activities of multinational corporations in selected regions, and best practices of firms in selected regions.

BGB 3321	Human Resource Leadership for Sustainable Change	3 (3-0-6)
Prerequisite:	BBA 2125 Developing Leadership and Sustainability Mindsets and Completion of 70 credits	

Change management principles, leadership strategies, and sustainable practices tailored for navigating the intricate landscape of evolving workplaces; the application of theory to real-world scenarios, fostering student engagement through practical exercises and case studies to develop advanced skills to lead successful organizational transformations, recognizing the global dimensions of contemporary HR challenges.

BGB 3322	Human Resource Analytics and Decision-Making	3 (3-0-6)
Prerequisite:	BBA 1123 Management in Dynamic Contexts BBA 2112 Data Analytics Essentials and Completion of 70 credits	

Tools to collect, analyze, and interpret HR data for strategic decision-making; how to leverage analytics to optimize HR processes, enhance employee performance, and contribute to organizational success.

BGB 3323	Warehousing and Material Handling	3 (3-0-6)
Prerequisite:	BBA 2122 Operations and Sustainable Supply Chain Management and Completion of 70 credits	

Warehousing operations and systems, warehousing pallet, case, and small items storage and retrieving systems, order profile, functional analysis, warehouse management system (WMS), warehouse data analysis, layout, resources, and warehousing development system.

BGB 3324	Procurement and Supply Management	3 (3-0-6)
Prerequisite:	BBA 2122 Operations and Sustainable Supply Chain Management and Completion of 70 credits	

Roles and objectives of procurement and supply functions, procurement and supply strategies, materials management, supplier selection and evaluation, strategic outsourcing, global sourcing, supply partnerships, price/cost analysis, bargaining and negotiations, procure to pay process, procurement policy, ethics and governance, and environmental sustainability.

BGB 3325	Venture Opportunity	3 (3-0-6)
Prerequisite:	Approval from the chairperson and academic advisor prior to registering for the course.	

An interdisciplinary course to exploit disruptive opportunities to create novel business ideas, evaluate the viability of business concepts and markets, and launch entrepreneurial ventures; emphasizes professional development through mentoring and networking opportunities with external organizations. Students are required to complete a semester-long project that entails the development of an entrepreneurial venture and investor presentation for a different startup business concept, with guidance from an assigned mentor/advisor.

BGB 3326	Industry Immersion Consulting	3 (3-0-6)
Prerequisite:	Approval from the chairperson and academic advisor prior to registering for the course.	

A hands-on, project-based experience to strengthen students' professional skills. Students will have the opportunity to work on a project with the assigned company in a domestic or foreign country that permits students to combine theory and practice and develop business

solutions. The project will be supervised by both a university and a company coach to develop the students' global business practice, cross-cultural experience, and international networking.

BGB 3416 Current Issues in Entrepreneurship and Innovation 3 (3-0-6)

Prerequisite: Completion of 100 credits

Current trends and development in entrepreneurship and innovation management through an experiential-learning approach. Practice-based issues of start-ups of entrepreneurs, corporate entrepreneurship, and multinational corporations (MNCs) are discussed.

BGB 4211 Global Supply Chain Management 3 (3-0-6)

Prerequisite: BGB 3221 Global Business Strategies

Contemporary issues related to managing operations in a global context and the key factors in operations such as production planning and management of globally dispersed manufacturing and services; demand-driven value networks across the modern supply chain to understand planning strategies, sourcing, and procurement, supplier selection and development, manufacturing production, logistics, distribution, and transportation management in supply chain network; utilizing analytical and quantitative tools and frameworks and the application of Information Technology and data analytics to enhance a firm's operations and supply chain strategies and create value.

BGB 4212 Global Business Feasibility and Risk Management 3 (3-0-6)

Prerequisite: BGB 3221 Global Business Strategies
and Completion of 108 Credits

Apply quantitative and analytical tools and frameworks to explore the dynamic global business environment, examine the various dimensions of the feasibility of establishing business operations and projects across borders, analyzing risks across borders such as geopolitical, economic, financial, and foreign exchange risks, integrated with the concept of feasibility to systematically assess and evaluate business performance.

BGB 4221 Strategic Decision Making 3 (3-0-6)

Prerequisite: BGB 3221 Global Business Strategies
and Completion of 108 Credits

Strategic management amidst the phenomena of globalization, contemporary strategy concepts, and theories, important and consistent principles that a firm can use in making decisions that will affect its long-term performance in an increasingly globalized business environment, strategic management process: environmental scanning, strategy formulation, strategy implementation, and evaluation and control, creation of competitive advantages and the system of value creation, challenges posed in the strategic management process through a discussion of various business cases as well as the use of up-to-date information technology (IT) tools.

BGB 4311 Global Human Resource Capstone Practicum 3 (300 hours)

Prerequisite: Approval from the chairperson and / academic advisor prior
to registering for the course
and Completion of 108 Credits

A 300-hour internship for the Global HR Strategy track to synthesize theoretical knowledge with practical application of HRM concepts and principles and enhance students' HRM skills in a real- world global corporate setting. A formal report and presentation at the end of the internship period is a requirement.

Global Supply Chain Management Concentration for Global Business Management Major and and Non-Global Business Management Students

BGB 4312 Supply Chain Risk Management 3 (3-0-6)

Prerequisite: BBA 2122 Operations and Sustainable Supply Chain Management and Completion of 70 credits

Sources of supply chain risk and their impact on supply chain performance, supply chain risk management process, and strategies to help mitigate supply chain risk, and case studies. Global Immersion Program Concentration for Global Business Management Major Students

BGB 4313 Global Business Management Internship 3 (300 hours)

Prerequisite: Approval from the chairperson and academic advisor prior to registering for the course.

Designed to provide students with an opportunity to apply the knowledge and skills to gain practical business experience in domestic and multinational setting as well as international organizations. Formal presentation at the end of the internship period is a requirement.

BGB 4411 Seminar in Global Business Management 3 (3-0-6)

Prerequisite: Completion of 70 Credits

Discussion on contemporary issues and trends in global business at the regional, country specific, industry and firm level, topics covered include international economics, trade and investments, international management and international; marketing, global supply chain, informational technology, legal and ethical issues, relevant to professional development of students.

BGB 4412 Individual Research 3 (3-0-6)

Prerequisite: (Only for BGB major students)

BBA 3111 Business Research for Practitioners Completion of 100 credits

Approval from the chairperson and/or academic advisor prior to registering for the course.

Developing students' ability to apply a theoretical approach to the real world problems of any organization in a selected industry in Thailand, a specific area of concentration will be chosen by students upon approval of advisor from the department of BGB.

BGH 1102 Digital Literacy 3 (2-2-5)

Fundamental concepts and hands-on learning of data and information literacy. Exploratory data analysis. Identification, location, evaluation, usage of information for problems at hand, and data privacy issues.

BGH 1103 Quantitative Techniques in Business 3 (3-0-6)

This skill-based course empowers students with the quantitative proficiency needed for success in any business discipline. By discovering the essentials of quantitative business skills from basic math, statistical concepts, and business metrics, students will build a strong foundation to excel in future entrepreneurship, finance, marketing, and management studies through hands-on learning and practical applications.

BGH 1104 Data Analytics and Visualization 3 (2-2-5)

Fundamental concepts and hands-on learning of Python programming and data visualization, relational database management systems, Python interactive development environments, packages, data structures, mathematical operations, functions, control

statements, graphics, and web scraping. Data cleansing, descriptive statistics, and multivariate models. Relational database management systems, structured query language (SQL), and text file

BGH 1105 Accounting for Professionals 3 (3-0-6)
Integrated set of theories and application of accounting for entrepreneurs are emphasized accounting issues for entrepreneurs related to fundamentals financial accounting, preparation and presentation of financial statements based on International Financial Reporting Standard: Income Statement, Statement of Financial Position, Statement of Cash Flows, Statement of Change in Owners' Equity and Notes to Financial Statements including ESG Sustainability disclosure. In addition, fundamentals of managerial accounting use management accounting information as managers for planning, organizing, controlling, and decision making.

BGH 2101 Consumer Behavior and Insights 3 (3-0-6)
Prerequisite: BBA 1121 Marketing in Practice
Designed to cultivate critical thinking, creativity, and adept data analytics skills, this course offers a comprehensive exploration of the factors influencing consumer choices and preferences. It delves into psychological and sociocultural dimensions to unravel the complexities behind decision-making processes. Through interactive discussions, and hands-on projects, students will analyze real-world consumer trends, harnessing data-driven methodologies to extract valuable insights. By synthesizing theory and practical application, students will emerge with a profound understanding of consumer behavior, poised to make informed strategic decisions in diverse industries.

BGH 2102 Business Research for Practitioners 3 (3-0-6)
Prerequisite: BGH 1103 Quantitative Techniques in Business
This course highlights the exploration of practical research approaches tailored to business decision-making and addressing challenges. It encompasses the essence of research, the process of identifying and defining problems within business administration, structuring, and coordinating research endeavors, research methods in both qualitative research and quantitative research, and strategies for gathering data, developing the research plan, handling and scrutinizing collected data and customer insight, and effectively communicating discoveries using suitable report structures. Additionally, this course enables students to develop data analytical, critical thinking, and ethical decision-making skills necessary for conducting meaningful and impactful business research.

BGH 2103 Developing Leadership and Global Mindsets 3 (3-0-6)
Prerequisite: BBA 1123 Management in Dynamic Contexts
The course is designed to develop a balanced mindset that integrates leadership and global principles emphasizing sustainability. It aims to equip students with the essential skills and strategies necessary to bloom as adept leaders in the modern landscape, and to lead with purpose, emphasizing both effective leadership practices and global decision-making. Through interactive learning, discussions, and exercises, students will be guided to embark on a journey of transformational growth.

BGH 2104 Finance for Hospitality 3 (3-0-6)
Prerequisite: BGH 1103 Quantitative Techniques in Business
Introduction to corporate financial management and a comprehensive overview of managerial perspectives for financial managers in making sound as well as ethical

investment and financing decisions, including time value of money, risk and return, cost of capital, valuation of stocks and bonds, project evaluation using capital budgeting decision-analysis tools, risk analysis in project evaluation, impact of financial leverage on cost of capital and valuation, dividend policy, financial statement analysis, working capital management as well as the use of MS-Excel functions in helping calculating and making effective financial decisions.

BGH 3201 Introduction to Global Hospitality Management 3 (3-0-6)

Prerequisite: BBA 1121 Marketing in Practice

The overview of the global hospitality industry provides an understanding of the organizational structure of hospitality business, including front office, property management system, sale and marketing, housekeeping, food and beverage, human resources, and other departments. It emphasizes current and future trends in the hospitality industry. In addition, through a combination of theoretical knowledge and real-world examples, students will be equipped to navigate dynamic and complex hospitality settings.

BHT 3212 Food Service Management 3 (3-0-6)

Prerequisite: BBA 1123 Management in Dynamic Context

Role and contribution of the Food & Beverage department, its structure, and functions and responsibilities of the key personnel, overview of the department's functions: purchasing, receiving, storing, food preparation, stewarding, planning the menu, food service and sales including food sanitation, food quality and kitchen equipment.

BHT 3213 Talent Management in Hospitality and Tourism 3 (3-0-6)

Prerequisite: BBA 1123 Management in Dynamic Contexts

Personnel administration and human resources management, adopting a Strategic Human Resources Management (SHRM) approach focusing on the vital role of talent management and development in supporting organizational growth, the art of talent acquisition—identifying, recruiting, and retaining skilled individuals to meet organizational needs. Unveiling the keys to organizational success through the lens of talent management in hospitality.

BGH 3202 Professional Personality Development in Hospitality 3 (3-0-6)

Prerequisite: BBA 1123 Management in Dynamic Context

This course is designed to actively involve students in the significance of personality traits, effective communication, and interpersonal skills within the context of the vibrant hospitality and tourism industry. This course emphasizes the development of the knowledge, skills, and abilities crucial to demonstrate basic personal and professional social skills, personality development and communication skills in various hospitality and tourism settings.

BGH 3203 Rooms Division Management 3 (3-0-6)

Prerequisite: BBA 1123 Management in Dynamic Context

Rooms division, front office operations which covers reception, reservation, room sales, registration, cashier responsibilities and night-auditing, revenue management, functions and roles of the hotel housekeeping department and coordination with the front office department.

- BGH 3204** **Service Excellence** **3 (3-0-6)**
 This course will make students learn the interdisciplinary approach through term project assignments, case studies, discussion; and understand the principles of service management and the measurement how to improve the overall of service excellence.
- BHT 4301** **Information Technology in Hospitality and Tourism** **3 (3-0-6)**
Prerequisite: **BBA 1123 Management in Dynamic Context**
 Latest information technologies in the hospitality and tourism industries, property management systems and central reservation systems, practice of current global distribution system software packages.
- BHT 4302** **Operations and Leadership in Hospitality and Tourism** **3 (3-0-6)**
Prerequisite: **BBA 1123 Management in Dynamic Context**
 Leadership, various theories and styles of leadership in the field of hospitality and tourism industries, operation as a major functional area of business and operation decision making to improve by utilizing all the underlying disciplines.
- BHT 4303** **Strategic Management in Hospitality and Tourism** **3 (3-0-6)**
Prerequisite: **BBA 1123 Management in Dynamic Context**
 Advanced tools and techniques in planning and implementing strategies in Hospitality industry. Introducing the areas of operation, human resources and marketing with emphasis on building planning, analytical and interpersonal skills as well as leadership and entrepreneurial spirit.
- BGH 4311** **Seminar in Global Hospitality Management (Seminar V)** **1 (1-0-2)**
 Special seminar course tailored to provide in-depth and specialized knowledge and skills in the respective major fields through interactive workshop and training, aiming to develop the students' employability skills.
- BHT 4304** **Internship in Hospitality** **3 (400 hours)**
Prerequisites: **BBA 1123 Management in Dynamic Context**
 An off-campus experiential learning activity. It is to facilitate the students to learn in a professional work environment. These experiences will enable them to connect classroom theories to the 'real world' situations thus enhancing the students' academic and career interests and goals. Students must register as the last semester only in order to do internship for at least 400 hours (or 3 months) continuously after completing and passing the in-house training.
- BGH 4312** **Advanced Internship in Global Hospitality I** **6 (400 hours)**
Prerequisites: **BHT 4304 Internship in Hospitality**
 This course provides students with valuable hands-on experience in a global organization. Students will have the opportunity to learn and develop essential skills for working in a diverse cultural and business environment. This includes cross-cultural communication, problem-solving, adaptability, and teamwork. Before embarking on their internship, students will undergo comprehensive preparation, and upon completion, they will be required to submit a detailed internship report and present their findings.
- BGH 4313** **Advanced Internship in Global Hospitality II** **6 (400 hours)**
Prerequisite: **BHT 4304 Internship in Hospitality**
 This course provides students with valuable hands-on experience in a global organization.

Students will have the opportunity to learn and develop essential skills for working in a diverse cultural and business environment. This includes cross-cultural communication, problem-solving, adaptability, and teamwork. Before embarking on their internship, students will undergo comprehensive preparation, and upon completion, they will be required to submit a detailed internship report and present their findings. Upon completion, students will be able to demonstrate a deep understanding of global business practices and contribute effectively to multinational teams.

BGH 4314 Advanced Internship in Global Hospitality III 6 (400 hours)

Prerequisites: BHT 4304 Internship in Hospitality

This course provides students with valuable hands-on experience in a global organization. Students will have the opportunity to learn and develop essential skills for working in a diverse cultural and business environment. This includes cross-cultural communication, problem-solving, adaptability, and teamwork. Before embarking on their internship, students will undergo comprehensive preparation, and upon completion, they will be required to submit a detailed internship report and present their findings. Upon completion, students will be able to demonstrate a deep understanding of global business practices and contribute effectively to multinational teams.

BHT 3201 Introduction to Hospitality and Tourism Management 3 (3-0-6)

Prerequisite: BBA 1121 Marketing in Practice

The overview of the tourism industry and the basic concepts, tools, and techniques of tourism management. The impacts of tourism will also be examined, together with the role and the importance of tourism planning in minimizing those impacts of tourism and developing strategies to ensure sustainable evolution. And it also gives an overview of hotel management in hospitality industry, build to understanding the structure of organization of hospitality business, front office, sale and marketing, housekeeping, food and beverage, human resources and other department, emphasis the current trend and future trend of hospitality business. In addition,

BHT 3202 Consumer Behavior in Hospitality and Tourism 3 (3-0-6)

Industry

Prerequisite: BBA 1121 Marketing in Practice

Diversity of tourists and their consumer behavior, traditional, social and cultural backgrounds, sociological and psychological factors, social groups, demographic variables, social strata and culture that form tourist attitudes, consideration, purchasing behavior and consumption, tourist behavior with qualitative and quantitative approaches to assure better understanding of diversity of tourist behavior.

BHT 3203 Food and Beverage Management 3 (3-0-6)

Prerequisite: BBA 1111 Business Essential: A Design Thinking Approach

BBA 2102 Organization and Management

Role and contribution of the Food & Beverage department, its structure, and functions and responsibilities of the key personnel, overview of the department's functions: purchasing, receiving, storing, food preparation, stewarding, planning the menu, food service and sales including food sanitation, food quality and kitchen equipment.

BHT 3204 Personality and Communication in Hospitality 3 (3-0-6)
and Tourism

Prerequisite: BBA 1111 Business Essential: A Design Thinking Approach or
BHT 3201 Introduction to Hospitality and Tourism Management

This course is designed to actively involve students in developing the knowledge, skills and abilities crucial to demonstrate basic personal and professional social skills, personality development and modern etiquette. This course starts with the basic aspects of personality and the different ways in which these skills and knowledge are implemented in the hospitality and tourism industry. The course is also designed to develop the communication skill by the process includes perception, listening, self-disclosure, public speaking, ethics, nonverbal communication, conflict, power, and dysfunctional communication.

BHT 3205 Marketing in Hospitality and Tourism 3 (3-0-6)

Prerequisite: BHT 3201 Introduction to Hospitality and Tourism Management

Application of knowledge and skills acquired in principles of marketing and consumer behavior to the hospitality and tourism industry, evaluation of the industry, analyzing and developing marketing plans, application of various promotional strategies and tools to achieve organization's marketing objectives, department's structure, functions, and responsibilities of key personnel.

BHT 3211 Gateway to Service Industry 3 (3-0-6)

Prerequisite: BBA 1121 Marketing in Practice

Service Industry emphasizing tourism and hospitality. Fundamental concepts, tools, and techniques in tourism management, as well as an exploration of the impacts of tourism. Overview of hotel management within the hospitality sector, covering organizational structures and key departments such as front office, sales, marketing, housekeeping, food and beverage, and human resources. Emphasis on current and future trends in the hospitality industry

BHT 3212 Food Service Management 3 (3-0-6)

Prerequisite: BBA 1123 Management in Dynamic Contexts

Food Service Management, emphasizing the role of the Food and Beverage Department in hotel and restaurant operations, covering the entire process of restaurant creation, detailing key personnel roles, department functions, purchasing, storage, food preparation, stewarding, menu planning, sales, and additional aspects like beverage knowledge and service quality development.

BHT 3213 Talent Management in Hospitality and Tourism 3 (3-0-6)

Prerequisite: BBA 1123 Management in Dynamic Contexts

Personnel administration and human resources management, adopting a Strategic Human Resources Management (SHRM) approach focusing on the vital role of talent management and development in supporting organizational growth, the art of talent acquisition—identifying, recruiting, and retaining skilled individuals to meet organizational needs. Unveiling the keys to organizational success through the lens of talent management in hospitality and tourism.

BHT 3301	Human Resource Management in Hospitality and Tourism	3 (3-0-6)
Prerequisite:	BHT 3201 Introduction to Hospitality and Tourism Management	
A broad view on personnel administration and human resources management with its process (i.e. recruitment, selection, staffing, labor/staff relations, remuneration, compensation, motivation, evaluation, etc.); and training and development (human resources development or HRD) with its process (i.e. identify training needs, design & deliver of training, training evaluation & analysis) in hospitalities and tourism industries while introducing the current theories, current HRM & HRD concepts, skills, practices and hands-on HR applications within the field.		
BHT 3401	Event Management	3 (3-0-6)
Principles of event management, formulate event tourism strategies such as implementation of festivals, entertainment, corporate, cultural and sports events		
BHT 3402	Rooms Division Management	3 (3-0-6)
Rooms division, front office operations which covers reception, reservation, room sales, registration, cashier responsibilities and night-auditing, functions and roles of the hotel housekeeping department and coordination with the front office department.		
BHT 3403	Service Management	3 (3-0-6)
The holistic and interdisciplinary approach which will be used to explore the principles of service management. This course will make students more aware of the nature and characteristics of services, more knowledgeable about the way services need to be marketed due to their intangible core and more conscious of service quality, and the foundation of services industries. The course will enhance students' understanding of what actually constitutes quality, the nature of service, strategies for improving it; and taking a broad view on service management with its process		
BHT 3404	Food and Beverage Service	3 (3-0-6)
Food and Beverage operations, service principles and practices, types of table service of beverages, identification of service and restaurant equipment and supplies, effective employee recruitment and selection as well as strategies for orientation, training and evaluations, principles and application of menu planning, operations of in-house and outside catering, as well as sales and cash control.		
BHT 3405	Kitchen Operation	3 (3-0-6)
Principles and techniques involved in food production, kitchen organization, food and personal hygiene, kitchen equipment and utilities, basic food preparation methods, kitchen stewarding, sanitation food production control and standards, and kitchen items.		
BHT 3406	Catering, Bakery and Pastry	3 (3-0-6)
Details of the critical aspects of management involved in operating a catering and bakery business covering the history of baking industry, trends in bakery and catering, standards, food and personal hygiene, basic food preparation, methods of cooking, the use of standardized recipe, fruit desserts, cookies, meringues, pate a choux and basic custards. Key components of the course include a basic baking science principles, ratio, techniques and applying the theory into the real catering and bakery business.		

- BHT 3407** **Introduction to Airline Business Management** **3 (3-0-6)**
A broad view on aviation and airline business and understanding about working environment, interaction, duties and responsibilities of the various units in the day-to-day operations, aviation law, rules and regulations, market and demand, pricing and operations costs, revenue management, planning process, flight scheduling and operations, labor relations and HR management, safety and security, airports, air traffic control and transport, IT in airline operations, distribution and passenger process, handling critical issues and prospects for airline industry.
- BHT 3408** **Ground Operation Management** **3 (3-0-6)**
Passenger service, check-in counter, documentation and co-ordination for dispatching aircraft, passenger handling, cargo as well as customer relation. Including management focus on best practices within the complex operational environment in modern airports.
- BHT 3409** **In-flight Service Management** **3 (3-0-6)**
In-flight principles and procedures for making passengers convenience and satisfaction. Emphasis on the procedure of cabin crew service in passenger safety and serving food and beverages, and other in-flight responsibilities for pre-flight, in-flight and post flight by the form of lecture, practical and simulation.
- BHT 3410** **Perfecting Personality for Career and Life** **3 (3-0-6)**
This course is designed to actively involve students in developing the knowledge, skills and abilities crucial to service excellence with the demonstration of basic personal and professional social skills, personality development and modern etiquette. This course starts with the basic aspects of personality and the different ways in which these skills and knowledge are implemented. The course is also designed to developed the communication skill by the process includes perception, listening, self-disclosure, public speaking, ethics, nonverbal communication, conflict, power, and dysfunctional communication.
- BHT 3411** **Sustainable Tourism Management** **3 (3-0-6)**
Tourism development as well as its impacts to the host country in terms of environmental, socio- cultural and economic perspectives, different approaches for understanding tourism development and its sustainability, definitions and organizations related to sustainable tourism, components, procedures and techniques of sustainable tourism management and planning.
- BHT 3412** **Health and Wellness Tourism** **3 (3-0-6)**
A comprehensive view of the growing health, wellness and medical tourism sectors in a global context. Exploring the history, development, range of destinations, products and services and key issues associated with the management of health, wellness and medical tourism operations. Including trends and future predictions for these sectors.
- BHT 3413** **Cruise Ship Tourism** **3 (3-0-6)**
Examining the major aspects of cruise operations and management including history, global cruise market, economic significance, geography of cruising, itinerary design, anatomy of a cruise ship, operations, sales and marketing procedures, passenger services, event planning and management, and career opportunities.

- BHT 3414 Tour Guiding and Operation in Practice 3 (3-0-6)
Roles and ethics of a professional tour guide including tour guide practices, tourist safety measures, customs and immigration procedures and Thai tourism law, aspects of tourism distribution channels.
- BHT 3415 Tourism Destination Management 3 (3-0-6)
Comprehensive coverage of various tourism destinations, basic principles underlying the development of tourism supply and demand, up-to-date trends and implementation of different management approaches.
- BHT 3416 Introduction to MICE Business Management 3 (3-0-6)
An overview of the MICE business (Meetings, Incentives, Conventions and Exhibitions). It shows opportunities in working as professional meeting planners and job requirements. The emphasis of the course will be on the unique nature of MICE business. The fundamental concepts in creative planning, organizing and solving problems in relations to event and F&B management will be emphasized.
- BHT 3421 Front Office and Rooms Management 3 (3-0-6)
Significance of Front Office Department function and the importance of rooms division in the hotel industry. Covering the function of reservation system, different types of reservation systems available, makes reservation, keeps track of the room inventory, forecast rooms availability and illustrates various discount and alternatives room rates policies. The function of front office department and housekeeping departments in coordination with other departments of the hotel such as; Human Resource department, Maintenance department, Engineering department, Purchasing department, and Security department.
- BHT 3422 Service Excellence 3 (3-0-6)
This course will make students learn the interdisciplinary approach through term project assignments, case studies, discussion; and understand the principles of service management and the measurement how to improve the overall of service excellence.
- BHT 3423 Professional Personality Development 3 (3-0-6)
in Hospitality and Tourism
The significance of personality traits, effective communication, and interpersonal skills within the context of the vibrant hospitality and tourism industry. Emphasis on the development of the knowledge, skills and abilities crucial to demonstrate basic personal and professional social skills, personality development and communication skills in various hospitality and tourism settings.
- BHT 3424 Restaurant Service 3 (3-0-6)
Restaurant operations, service principles, and beverage table service techniques. Exploring service equipment, practical service operations, menu planning principles, and strategies for sales and cash control, ensuring comprehensive knowledge for effective restaurant management. Global Immersion Program Concentration for Hospitality and Tourism Management Major Students
- BHT 4104 Professional Seminar in Hospitality and Tourism 1 (1-0-2)
Management
Special seminar course tailored to provide in-depth and specialized knowledge and skills in the respective major fields through interactive workshop and training, aiming to develop

the students' employability skills.

BHT 4301 Information Technology in Hospitality and Tourism 3 (3-0-6)

Prerequisite: BHT 3211 Gateway to Service Industry

Latest information technologies in the hospitality and tourism industries, property management systems and central reservation systems, practice of current global distribution system software.

BHT 4302 Operations and Leadership in Hospitality and Tourism 3 (3-0-6)

Prerequisite: BHT 3211 Gateway to Service Industry

Leadership within the hospitality and tourism industries, various theories and styles of leadership in the field of hospitality and tourism industries, operation as a major functional area of business and operation decision making to improve by utilizing all the underlying disciplines

BHT 4303 Strategic Management in Hospitality and Tourism 3 (3-0-6)

Prerequisite: BHT 3211 Gateway to Service Industry

Advanced tools and techniques in planning and implementing strategies in Hospitality and tourism industry. Introducing the areas of operation, human resources and marketing with emphasis on building planning, analytical and interpersonal skills as well as leadership and entrepreneurial spirit.

BHT 4304 Internship in Hospitality and Tourism 3 (400 hours)

Prerequisites: Completion of at least 108 credits and

Passing In-house Training OR Getting approval from Chairperson

An off-campus experiential learning activities to facilitate the students' learning in a professional work environment. Enabling them to connect classroom theories to the 'real world' situations thus enhancing the students' academic and career interests and goals. Taken in the last semester and doing internship for at least 400 hours (or 3 months) continuously after completing and passing the in-house training.

BHT 4305 Current Issues in Hospitality and Tourism 3 (3-0-6)

Prerequisite: Senior standing

Overview of theories and concepts in hospitality and tourism management. Models, tools, methods and approaches related to hospitality and tourism management are included through action learning proc.

BHT 4306 Special Topic in Hospitality and Tourism 3 (3-0-6)

Management I

Advanced study on selected topic or emerging issue in International Hospitality and Tourism Management.

BHT 4307 Special Topic in Hospitality and Tourism 3 (3-0-6)

Management II

Advanced study on selected topic or emerging issue in International Hospitality and Tourism Management.

BHT 4308	Special Topic in Hospitality and Tourism Management III	3 (3-0-6)
Advanced study on selected topic or emerging issue in International Hospitality and Tourism Management.		
BHT 4309	Special Topic in Hospitality and Tourism Management IV	3 (3-0-6)
Advanced study on selected topic or emerging issue in International Hospitality and Tourism Management.		
BHT 4310	Special Topic in Hospitality and Tourism Management V	3 (3-0-6)
Advanced study on selected topic or emerging issue in International Hospitality and Tourism Management.		
BIB 3201	Cross Cultural Human Resource Management	3 (3-0-6)
Pre-requisite: BBA 2104 Global Strategy and Communication		
Differences and similarities of managerial systems and management practices in different cultural settings, definitions and concepts of culture, cultural differences at the national, organizational and managerial levels, regional and country cultural characteristics, complexities and challenges of running global organizations. Human resource practices across cultures and cultural frameworks applied to various aspects of human resource management in the international context. Topics also include the expatriation cycle, factors that influence effective management in cross-cultural settings, and ethical issues in the international environment. Coursework and case studies are used to facilitate a better understanding of the challenges confronted by global organizations when working and dealing with clients in diverse international business environments.		
BIB 3202	Export-Import Policy and Strategy	3 (3-0-6)
Pre-requisite: BBA 2104 Global Strategy and Communication		
Concepts and framework to systematically evaluate foreign markets and develop comprehensive export/import strategies, governments and organizations roles in balancing exports and imports among sectors, practical and strategic elements associated with the establishment of cross border international business ventures in the form of exports, e-commerce, current/updated procedures and practices of export-import planning, sourcing and financing, documentation, export/import compliance, export/import channels, foreign trade zones, and transportation modes.		
BIB 3203	Global Business in Practice	3 (3-0-6)
Pre-requisite: BBA 1104 Fundamentals of Marketing		
Focus on developing advanced skills in analyzing global markets, consumer and environment and identify marketing opportunities, explores the concept of segmentation, targeting and positioning in a globalized, multicultural environment, design and manage marketing mix, apply multiple decision-making tools and frameworks to formulate practical international marketing plans and strategies to gain competitive advantage. The course adopts a practical approach through workshops, projects and industry linkage to develop professional skills.		

BIB 3204 International Management 3 (3-0-6)
Pre-requisite: BIB 3201 Cross Cultural human Resource Management
The intricacies of doing business in different countries and environments, including the political, legal, cultural and technological contexts faced by multinational enterprises (MNEs), forms of operations available to the MNE, and the international strategic planning. Main topics covered include different theoretical and practical perspectives on globalization, international strategic planning and implementation in MNEs, strategies for international competition, international joint ventures and strategic alliances, organizational structure of MNEs, and international social and ethical responsibility of firms. The course prepares future managers to make good decisions and formulate successful international strategies.

BIB 4209 International Strategic Management 3 (3-0-6)
Pre-requisite: BIB 3204 International Management and Completion of 118 Credits
BBA 2105 Operations and Supply Chain Management
Strategic management amidst the phenomena of globalization, contemporary strategy concepts and theories, important and consistent principles that a firm can use in making decisions that will affect its long term performance in an increasingly globalized business environment, strategic management process: environmental scanning, strategy formulation, strategy implementation and evaluation and control, creation of competitive advantages and the system of value creation, challenges posed in the strategic management process through a discussion of various business cases as well as the use of up-to-date information technology (IT) tools.

BIE 3211 Diversity and Culture in Global Environment 3 (3-0-6)
Prerequisites: BBA 2104 Global Strategy and Communication
Theories and concepts of diversity and inclusion; generation; gender diversity; personality and values; cultural differences at the national, organizational, and managerial levels; regional and country cultural characteristics, complexities, and challenges of running global organizations; human resource practices across cultures and cultural frameworks applied to various aspects of human resource management in the international context.

BIE 3212 Marketing Strategies for Global Ventures 3 (3-0-6)
Prerequisites: BBA 1104 Fundamentals of Marketing
BBA 2104 Global Strategy and Communication
Focus on developing advanced skills in analyzing global markets, consumers, and environment and identifying marketing opportunities, exploring the concept of segmentation, targeting and positioning in a globalized, multicultural environment, designing and managing marketing mix, and applying multiple decision-making tools and frameworks to formulate practical international marketing plans and strategies to gain competitive advantage. The course adopts a practical approach through workshops, projects, and industry linkage to develop professional skills.

BIE 3213 Design Thinking and Innovation Strategies 3 (3-0-6)
Prerequisites: BBA2102 Organization and Management
A systematic approach to business innovation and creative problem solving that can be used in developing new products, new services, and new organizations of business. Design thinking tools are introduced to have self-development to become innovative thinkers and to uncover business opportunities.

- BIE 3224** Managing Multinational Enterprise 3 (3-0-6)
Prerequisites: BIE 3211 Diversity and Culture in Global Environment
 The intricacies of doing business in different countries and environments, including the political, legal, cultural, and technological contexts faced by multinational enterprises (MNEs); the fundamentals of international strategic planning and implementation; and international expansion modes. Coursework and case studies are used to facilitate a better understanding of the challenges confronted by global organizations when working and dealing with clients in diverse international business environments.
- BIE 3225** Global Trade in the Digital Era 3 (3-0-6)
Prerequisites: BBA 2104 Global Strategy and Communication
 Practical and strategic elements associated with the establishment of cross-border business ventures in the form of e-commerce, foreign investments, and small business internationalization; understanding governments and organizations roles in developing comprehensive export/import strategies, current/updated procedures and practices of export-import planning, sourcing, and financing.
- BIE 3401** Global Market Behavior 3 (3-0-6)
Prerequisites: BBA 2001 Human Behavior
 BBA 1104 Fundamentals of Marketing
 Methods of how industrial and consumer goods are marketed to international buyers and the strategic process of segmentation, targeting and positioning, international buyer behavior models and decision making schemes, variables in addition to culture that affect international buyers' purchase behaviors, cognitive, affective and co-native responses of industrial and consumer buyers from other countries in various contexts such as in trade shows, advertising effects, promotional incentives, direct marketing and e-commerce.
- BIE 3402** Global Business Communications 3 (3-0-6)
Prerequisite: BBA 1104 Fundamentals of Marketing
 Global and domestic cultural diversity and their impact on IMC strategy development, values, behaviors, and underlying assumptions related to verbal and visual communication strategies, the debate surrounding standardization versus localization of worldwide marketing communications campaigns, case studies of IMC campaigns directed to culturally specific domestic and international audiences.
- BIE 3403** Global Pricing Strategy 3 (3-0-6)
Prerequisite: BBA 2104 Global Strategy and Communication
 Processes, practices and challenges in designing value-based pricing strategy for firms engaging in international business, application of quantitative and qualitative decision-making tools and framework in evaluating pricing decisions in international context. Topics covered include factors affecting pricing of goods and services in the global market, price structures and policies, influences of international competition and negotiation on pricing, export-pricing strategies and transfer pricing issues.
- BIE 3404** Global Product and Brand Strategy 3 (3-0-6)
Prerequisite: BBA 1104 Fundamentals of Marketing
 Process of developing and introducing new products and brands for different culture markets, global product line and brand management such as global brand extension and dilutions, multiple product life cycle, global product and brand strategies, global brand portfolio, cross cultural brand positioning, brand valuation and impacts on building brand

image and equity, issues in crafting a solid global marketing plan, market selection techniques and global segmentation-targeting-positioning strategies.

BIE 3405 International Relations 3 (3-0-6)

Prerequisite: BBA 2104 Global Strategy and Communication

Fundamental principles, issues, conflicts and resolutions in international relations, and international organizations such as the United Nation, the World Trade Organization, the World Bank that govern international relations and its effect on businesses.

BIE 3406 Family Business Management 3 (3-0-6)

Prerequisite: BBA 2102 Organization and Management

Importance of family business, dynamics of family business, relationship, leadership and communication issues in family business, management and governance of the family business, professionalism in family business, ownership legacy, succession, sibling rivalries management, wealth management concerns and innovation in family business.

BIE 3407 Social Entrepreneurship 3 (3-0-6)

Prerequisite: BBA 2102 Organization and Management

Social entrepreneurship is an innovative and rapidly changing business field in which entrepreneurs are using business methods to help solving social and environmental challenges. Through case studies, lectures, and student presentations, students will learn to think strategically and explore different opportunities with a socially conscious business mindset.

BIE 3408 Digital Entrepreneurship 3 (3-0-6)

Prerequisite: BBA 2102 Organization and Management

Fostering innovation and entrepreneurship to develop new digital business and leverage digital technologies to create new business opportunities. Business models and strategies with emerging digital technologies are focused and applied in project-based learning process.

BIE 3409 Project Management 3 (3-0-6)

Prerequisites: Completion of 90 credits

Project planning procedure by considering factors in determining project objectives, setting of work system, allocation of resources, project feasibility analysis, matrix model organization, management techniques and operation procedures in accomplishing goal such as implementation, communication, coordination, controlling and evaluation of the project

BIE 3410 Creative Industries Entrepreneurship 3 (3-0-6)

Prerequisite: BBA 2102 Organization and Management

Concepts, skills, knowledge, and ideas to start up a new creative entrepreneurship in any creative industries of the country, or to gain a new perspective as a corporate entrepreneur in existing entrepreneurial business in different industries. Creative industries that are in focus such as food and beverage, fashion, and health and beauty.

BIE 3411 Cross Cultural Communication, Conflict and Negotiation 3 (3-0-6)

Prerequisites: BBA 2104 Global Strategy and Communication

Fundamental knowledge of theories and methodologies of dealing with cross-cultural communication as well as theories and strategies of communication relevant to the

management of conflicts and the conduct of negotiations.

BIE 3412 Leadership in the New Era 3 (3-0-6)

Prerequisites: BBA 2102 Organization and Management

The course is designed to develop capabilities to lead and empower teams/organization members with positive leadership principles/practices in the fast-moving trends and dynamic business and organizational contexts. It also aims to foster abilities to respond to challenges from domestic and global environments and develop modern leadership styles by examining effective management methods including expatriate and virtual workforce management.

BIE 3413 Entrepreneurial Commercialization 3 (3-0-6)

Prerequisites: BBA 1104 Fundamentals of Marketing

The course is designed to discuss various commercialization strategies for entrepreneurs. It fosters practical knowledge in strategies and tactics in marketing, advertising, sales, customer acquisition and relationship, channel, and pricing. It also includes the concepts of in-house R&D and intellectual property (IP) protection as well as inter-firm cooperation for innovation in global business contexts.

BIE 3414 Legal Aspects of Entrepreneurship 3 (3-0-6)

Prerequisite: BBA 2102 Organization and Management

Legal aspects of venturing into new businesses, domestically and internationally. Topics include legal structures, knowledge of intellectual property (IP) and IP protection laws, licenses, zoning laws, health and safety laws, labor laws, insurance, confidentiality, and non-disclosure agreements.

BIE 3415 Entrepreneurial Strategic Management 3 (3-0-6)

Prerequisites: Completion of 90 Credits

Understanding the core strategic choices facing startups as well as ongoing businesses. It emphasizes learning theories, frameworks and techniques for helping innovating companies to develop a strategic focus and to survive within their rapidly changing environments.

BIE 3416 Growth Mindset and Sustaining Organization 3 (3-0-6)

Prerequisite: BBA 2102 Organization and Management

Definition and importance of growth and fixed mindset, developing the growth mindset, improving motivation and achievement through a growth mindset, building a culture that is willing to take risks and accept failure, driving commitment, determination, opportunity exploration and innovation, and positioning and moving the business and its people for growth, innovation, collaboration and sustaining through the growth mindset.

BIE 4224 Strategic Decision Making 3 (3-0-6)

Prerequisites: BIE 3224 Managing Multinational Enterprise
and Completion of 118 Credits

Strategic management amidst the phenomena of globalization, contemporary strategy concepts, and theories, important and consistent principles that a firm can use in making decisions that will affect its long-term performance in an increasingly globalized business environment, strategic management process: environmental scanning, strategy formulation, strategy implementation, and evaluation and control, creation of competitive advantages and the system of value creation, challenges posed in the strategic management process through a discussion of various business cases as well as the use of

up-to-date information technology (IT) tools.

BIE 4315 International Management Consulting 3 (3-0-6)

Prerequisites: Senior Standing (Completion of 106 Credits)

(Only for International Business and Entrepreneurship major students)

The course provides students with a hands-on, project-based experience to strengthen their professional skills. Students will have the opportunity to work on a project with the assigned company in a domestic or foreign country that permits students to combine theory and practice and develop business solutions. The project will be supervised by both a university and a company coach. The course aims at developing the students' global business practice, cross- cultural experience, and international networking.

BIE 4326 Global Capstone Practicum 6 (400 hours)

Prerequisites: Approval from the chairperson and / academic advisor prior to registering for the course

(Only for International Business and Entrepreneurship major students)

A 1-semester internship (400 hours) designed to provide students with an opportunity to apply the knowledge and skills to gain practical business experience in domestic and multinational settings as well as international organizations. Formal report and presentation at the end of the internship period is a requirement.

BIE 4327 Venture Opportunity 6 (3-0-6)

Prerequisites: Senior standing (106 credits)

(Only for International Business and Entrepreneurship major students)

This interdisciplinary course is designed to exploit disruptive opportunities to create novel business ideas, evaluate the viability of business concepts and markets, and launch entrepreneurial ventures. It emphasizes professional development through mentoring and networking opportunities with external organizations. Students are required to complete a semester-long project that entails the development of an entrepreneurial venture and investor presentation for a different startup business concept, with guidance from an assigned mentor/advisor.

BIE 4401 Global Context of Business 3 (3-0-6)

Prerequisite: Approval from the chairperson and academic advisor prior to registering for the course.

Process of acquiring new skills and knowledge through international exposure. International field trip according to the language courses taken by students, 15-30 hours of course work seminars and industry visits in the host institution. 10-15 hours of preparation and presentation of project report based on the criteria established by the Department.

BIE 4402 Special Topics in International Business 3 (3-0-6)

Prerequisite: Completion of 118 credits

Focuses on doing business in selected regions. Includes in-depth understanding of the business environment, management practices and activities of multinational corporations in selected regions, and best practices of firms in selected regions.

BIE 4403 Individual Research 3 (3-0-6)

Prerequisite: (Only for International Business and Entrepreneurship major students)
BBA 3101 Business Research and Completion of 118 credits

Developing students' ability to apply a theoretical approach to the real-world problems of

any organization in a selected industry in Thailand, a specific area of concentration will be chosen by students upon approval of advisor from the department of International Business Management.

BIE 4404 International Business Management Internship 3 (300 hours)

Prerequisite: Approval from the chairperson and/academic advisor prior to registering for the course.

Designed to provide students with an opportunity to apply the knowledge and skills to gain practical business experience in domestic and multinational setting as well as international organizations. Formal presentation at the end of the internship period is a requirement.

BIE 4415 Current Issues in Entrepreneurship and Innovation 3 (3-0-6)

Prerequisites: Senior Standing (106 credits)

The course is designed to introduce students to the current trends and development in entrepreneurship and innovation management through an experiential-learning approach. Practice-based issues of start-ups of entrepreneurs, corporate entrepreneurship, and multinational corporations (MNCs) are discussed.

BIR 3211 Risk Management and Insurance 3 (3-0-6)

Basic concepts of risk and insurance, terminologies used in risk management and insurance, functional operations of insurers, fundamental legal principles, insurance contract, various types of insurance such as life and health insurance, property and liability insurance, and government insurance.

BIR 3221 Property Insurance 3 (3-0-6)

Prerequisite: BIR 3211 Risk Management and Insurance

Analysis of an insurance contract and measurement of property and net income loss exposures of family and business firm in general, major insurance policies and extension available in the Thai market, fire insurance and allied lines, Industrial All Risk business interruption insurance, motor insurance, ocean and inland marine insurance fidelity guarantee insurance, surety bond and other miscellaneous insurance.

BIR 3222 Casualty Insurance 3 (3-0-6)

Prerequisite: BIR 3211 Risk Management and Insurance

Analysis of source of legal liability, major sources of liability loss exposures of both family and business firm and insurance coverage designed to meet those loss exposures, personal liability insurance, public liability insurance, workers' compensation employer's liability insurance, professional liability insurance, products liability insurance, Director and Officers' s liability insurance, Cyber liability insurance and a variety of miscellaneous liability insurance.

BIR 3223 Life Assurance 3 (3-0-6)

Prerequisite: BIR3211Risk Management and Insurance

Features of life insurance industry, life insurance contract, life insurance policy, life insurance premium, life insurance products and supplemental benefits, life insurance policy provisions, life insurance policy ownership rights, life insurance claim and basic group life insurance.

BIR 4311	Employee Benefits	3 (3-0-6)
Prerequisite:	BIR 3211 Risk Management and Insurance	
A study of the analysis, planning and administering of the employee benefit insurance plan. The topics include basic concepts in employee benefit planning, risk management of employee benefit plans, death benefits, medical health insurance, accidental death and dismemberment insurance, disability income benefits, social insurance, unemployment insurance, group insurance, and retirement benefit plans.		
BMK 3201	Consumer Behavior	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice	
The study of how consumers make decisions on how they select, buy and use products. Topics that relate to consumers' sensory and perceptual processes, learning and memory, self and personality dynamics, motivation and emotion, attitude change and persuasion are thoroughly discussed to learn about their application in the marketing field so as to understand and satisfy consumers' needs and wants. Consumer well-being and the digitization of consumer behavior are given emphasis to explore consumers' changing consumption patterns in recent times.		
BMK 3202	Digital Marketing	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice	
Fundamental concepts of digital marketing, including digital environment, cyber laws, ethical issues, challenges, trends, channels, tools, platforms, and digital strategy formulation to implement and enhance marketing performance of goods and services.		
BMK 3203	Brand Driven Innovation	3 (3-0-6)
Prerequisite:	BBA 1104 Fundamentals of Marketing	
The integration of branding, design and innovation, bringing brand strategy to life through a value proposition and tangible customer experience for the sustainable growth. Emphasizing on brand building process, brand insights, brand touch points, customer journey mapping, brand archetype and brand identity, brand personality, brand communications and essential brand strategies to maximize brand equity through continuous innovation.		
BMK 3204	Marketing Management	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice	
	BBA 3111 Business Research and Completed 90 credits	
The course provides an opportunity for the students to sharpen their skills in making effective marketing plan in response to the needs of the market. Course topics include market-oriented strategic planning, market research and customer insights, target market selection and comprehensive marketing planning regarding product, pricing, distribution and integrated communications in both offline and digital media. Through the collaboration with real industry players, the course allows the students to effectively formulate marketing plans in practical manners in order to cope with the disruptive market environment in modern days.		
BMK 3211	Brand Driven Innovation	3 (3-0-6)
Prerequisite :	BBA 1121 Marketing in Practice	
	and Completed 75 credits	
The integration of branding and brand identity design through workshops, coaching and brainstorming for creating the brand ideas, enhancing mainly the creative skills, critical		

thinking and communication skills .Bringing brand strategy to life by crafting value propositions and tangible customer experiences and driving the sustainable growth through the brand-building process, encompassing insights, touch points, customer journeys, archetypes, identity, personality, and communication strategies.

BMK 3212 Digital Marketing and Communications 3 (3-0-6)

Prerequisite: BBA 1121 Marketing in Practice

Introduction to principles and practices of integrated marketing communications. Examine the roles and functions of various marketing communications mix including advertising, sales promotion, public relations, digital marketing, and direct marketing to build and maintain brand equity. Topics include communication process, managerial framework for IMC campaign planning, promotional objectives and budgets, creative strategy, offline and online media planning strategy.

BMK 3213 Marketing Analysis and Strategy 3 (3-0-6)

Prerequisite: BBA 1121 Marketing in Practice

The intricacies of marketing analysis, marketing strategy, knowledge and skills to navigate the dynamic business landscape. Understand how to leverage marketing analytics to gain a deeper understanding of an organization's internal resources, competitive positioning, customers, competitors, and stakeholders. Analyze the impact of macro-environmental factors and utilize data-driven insights to design practical marketing strategies that align with an organization's distinctive competencies and drive business growth and sustain competitive advantages.

BMK 3221 Product and Pricing Strategy 3 (3-0-6)

Prerequisite: BBA 1121 Marketing in Practice

The critical aspects of product management and pricing strategies, the fundamentals of product concepts, new product development process, product mix, and product strategy. Gain insights into customer value perceptions, price-demand relationships, cost structures, and consumer behavior to manage product lines and develop pricing strategy effectively. Master the art of developing profitable pricing strategies across the product lifecycle, from new product introductions to mature products.

BMK3222 Professional Seminar in Marketing 1 (1-0-2)

Prerequisite: BBA 1121 Marketing in Practice

A number of marketing case studies and contemporary issues in marketing will be discussed throughout the semester by marketing professional. Topics include consumer trends, marketing trends, current marketing issues and strategies.

BMK 3304 Competitive Analysis and Strategy 3 (3-0-6)

Prerequisite: BBA 1104 Fundamentals of Marketing
and Completed 75 credits

An integrative marketing course that includes comprehensive analytical marketing concepts and theories for understanding an organization's internal resources, competitive positioning and relationship with customers, competitors, suppliers, distribution channels as well as analyzing competitive relevance towards macro-environmental factors from diverse industrial sectors; and provides guidelines to design practical business strategies based on an organization's distinctive competencies to create and sustain its competitive advantages.

BMK 3305	Integrated Marketing Communications	3 (3-0-6)
Prerequisite:	BBA 1104 Fundamentals of Marketing	
Introduction to principles and practices of integrated marketing communications. Examine the roles and functions of various marketing communications mix including advertising, sales promotion, public relations, digital marketing, and direct marketing to build and maintain brand equity. Topics include communication process, managerial framework for IMC campaign planning, promotional objectives and budgets, creative strategy, offline and online media planning strategy.		
BMK 3306	Marketing Channels and Logistics	3 (3-0-6)
Prerequisite:	BBA 1104 Fundamentals of Marketing	
This course emphasizes the vital role of the marketing mix, "place", in creating sustainable marketing competitive advantage. It includes marketing channel and logistics management concepts and strategies; target markets and channel design strategy; analysis and interfaces of channel strategies with logistics management; digital trends and contemporary issues in marketing channel and logistics influencing marketing management; practical and real-world applications of marketing channel concepts and strategies in today's borderless, globalized marketing environment.		
BMK 3310	Digital Consumer Insights	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice	
Coverage of a broad range of theories, concepts and apply digital tools to highlight the potential of qualitative research to uncover behavior and insights of consumers to build a base knowledge that can be used to create strategies and competitive advantage in the evolving digital marketing landscape.		
BMK 3311	Content Marketing	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice	
Development and planning of content for brands which engage and entice with the use of various media such as text, photography, audio, and video in the digital format, hands-on exercises to determine the best practices in creating an effective content marketing plan.		
BMK 3312	Retail Marketing and Merchandising	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice	
The grasp of retail marketing strategies, visual merchandising techniques, and understand how to foster consumer engagement within a retail setting, product placement and assortment planning to optimize sales and enhance the overall shopping experience, promotional tactics, including sales promotions, loyalty programs, and event marketing, to drive the store traffic and boost sales.		
BMK 3321	Essential MarTech	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice	
The concept of MarTech and exploring the key technologies that are being used by marketers today, the latest contemporary technologies in marketing and how they can be used to create effective marketing campaigns, enhancing the understanding and skills to make use of MarTech in the marketing tasks through hands-on workshops and knowledge sharing from the experts in the field.		

- BMK 3322 Innovations in Customer Experiences and Sales 3 (3-0-6)
 Prerequisite: BBA 1121 Marketing in Practice
 The conceptual understanding and hands-on application through real-world projects, customer data management and cutting-edge technologies. Master the art of selling techniques, relationship-building strategies, and customer interaction management to excel in sales opportunity management, account relationship management, and customer experience management, B2C and B2B customer relationships, acquire, retain, and developing a loyal customer base that drives business success.
- BMK 3407 Sales and Customer Relationship Strategies 3 (3-0-6)
 Prerequisite: BBA 1104 Fundamentals of Marketing
 The practical marketing strategy to manage customer accounts and to improve business relationships with customers both B2C and B2B, by acquiring, retaining and developing customer relationships. Emphasis is given on both conceptual knowledge and hands-on learning using practical project, including selling techniques and enhancing relationships in sales opportunity management, account relationship management and customer interaction management.
- BMK 3408 Sales Promotion and Display Strategies 3 (3-0-6)
 Prerequisite: BBA 1104 Fundamentals of Marketing
 A modern and concrete basic knowledge of retail sales promotion. Learn how to mix and match various sales promotion techniques to fit a specific product and situation to incentivize sales in the short term. The course also emphasizes on the effective uses of in-store display to attract customers and increase store traffic.
- BMK 3409 Creative Strategy in IMC Campaign 3 (3-0-6)
 Prerequisite: BMK3305 Integrated Marketing Communications
 This course focuses on the development of a complete and practical integrated marketing communications (IMC) campaign based on consumer insights, brand insights, and competitor insights. Students will explore a process-based approach to design creative communication, execute big idea, craft advertising, and other promotional campaigns. Emphasis will be given to the principles and tools to understand consumer journey in order to develop consistent and engaging message and media strategy at each touch point.
- BMK 3410 Digital Consumer Insights 3 (3-0-6)
 Prerequisite: BMK 3202 Digital Marketing
 Coverage of a broad range of theories, concepts and apply digital tools to highlight the potential of qualitative research to uncover behavior and insights of consumers to build a base knowledge that can be used to create strategies and competitive advantage in the evolving digital marketing landscape.
- BMK 3411 Content Marketing 3 (3-0-6)
 Prerequisite: BMK 3202 Digital Marketing
 Development and planning of content for brands which engage and entice with the use of various media such as text, photography, audio, and video in the digital format, hands-on exercises to determine the best practices in creating an effective content marketing plan.

BMK 3412	Experiential and Lifestyle Marketing	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice	
The principles, strategies, and execution of experiential marketing campaigns that captivate audiences and leave lasting impressions .Leverage the consumer insights and lifestyles to create targeted and impactful experiential campaigns and explore techniques for creating immersive environments, interactive installations, engaging activations and lifestyle marketing strategies.		
BMK 3413	Lifestyle Marketing	3 (3-0-6)
Prerequisite:	BBA 1104 Fundamentals of Marketing	
Explore the principle and concept of lifestyle marketing. Students will learn how to market products in a way that embodies the interests, opinions, and attitudes of the target audience. Emphasis is on understanding the practical application of lifestyle marketing strategies to market food, fashion, wellness products.		
BMK 4201	Marketing Management	3 (3-0-6)
Prerequisites:	BBA 1104 Fundamentals of Marketing	
	BBA 3101 Business Research Completed 90 credits	
The course provides an opportunity for the students to sharpen their skills in making effective marketing plan in response to the needs of the market. Course topics include market-oriented strategic planning, market research and customer insights, target market selection and comprehensive marketing planning regarding product, pricing, distribution and integrated communications in both offline and digital media. Through the collaboration with real industry players, the course allows the students to effectively formulate marketing plans in practical manners in order to cope with the disruptive market environment in modern days.		
BMK 4211	Marketing Research	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice	
	BBA 3111 Business Research	
	and Completed 90 credits	
A research project-based course designed to cover the whole marketing research processes and understand marketing research tools and techniques to translate a marketing decision problems into research questions and learn how to design a research plan, analyze the data and accurately interpret, making the research report and translating the results into practical recommendations.		
BMK 4221	Marketing Metrics and Decisions	3 (3-0-6)
Prerequisite:	BBA 1121 Marketing in Practice and Completed 100 credits	
The analyzing and planning in the area of marketing decision making. It includes principles, techniques and actual practices of market analysis, market forecasting, demand analysis, and evaluation of market potential. The emphasis is on the market analysis, sales projection, pricing analysis, sales force and distribution decision as a part of administrative planning for profit, market campaign planning, and using metrics to analyze communication plan effectiveness for advertising, sales promotion, online advertising.		

BMK 4222 Capstone Marketing Project 3 (3-0-6)
Prerequisite: BBA 1121 Marketing in Practice
 BBA 3111 Business Research
 BMK 3213 Marketing Analysis and Strategy
 and Completed 108 credits

A dynamic blend of hands-on development of marketing plan, through case studies, interactive activities and engaging lectures, cultivating the essential proficiencies in critical thinking, innovative problem-solving, effective communication, digital fluency, and data analytics. Emphasizing the fusion of customer insights, technological adeptness for crafting the imaginative and coherent marketing strategies within the framework of contemporary marketing paradigms and methodologies to meet customer needs.

BMK 4302 Contemporary Issues in Marketing 3 (3-0-6)
Prerequisites: BBA 1104 Fundamentals of Marketing
 and Completed 75 credits

This course is designed to improve students' awareness of contemporary issues in marketing and to develop their case analysis skills. A number of case studies and specific marketing issues will be discussed throughout the semester. A step by step approach will be taken to build up students' knowledge of and skills in case analysis throughout the course.

BMK 4303 Marketing Research 3 (3-0-6)
Prerequisites: BBA 1104 Fundamentals of Marketing
 BBA 3101 Business Research
 and Completed 90 credits

A research project-based course designed to cover the whole marketing research processes and understand marketing research tools and techniques to translate a marketing decision problem into research questions and learn how to design a research plan, analyze the data and accurately interpret, making the research report and translating the results into practical recommendations.

BMK 4304 Marketing Metrics and Decisions 3 (3-0-6)
Prerequisite: BBA 1104 Fundamentals of Marketing
 and Completed 112 credits

The analyzing and planning in the area of marketing decision making. It includes principles, techniques and actual practices of market analysis, market forecasting, demand analysis, and evaluation of market potential. The emphasis is on the market analysis, sales projection, pricing analysis, sales force and distribution decision as a part of administrative planning for profit, market campaign planning, and using metrics to analyze communication plan effectiveness for advertising, sales promotion, online advertising.

BMK 4311 Digital Media Strategies 3 (3-0-6)
Prerequisite: BBA 1121 Marketing in Practice

This course focuses on media, targeting strategies and search engine optimization (SEO) that are applied to build an effective digital campaign. Students will learn the process of exposing target audience to various available digital media options and integration of digital communication tools; budget allocation; digital media planning and strategies that drive traffic, engagement, leads and sales.

BMK 4321 Digital Marketing in Practice 3 (3-0-6)

Prerequisite: BMK 3310 Digital Consumer Insights
and Completed 90 credits

Integration, synthesis, and application of overall digital marketing knowledge, principles, and tactics in creating a practical learning digital business start-up project. A framework for developing a digital project includes overall market analysis, research, the project concept, creative digital marketing strategies, implementation and level up plan.

BMK 4322 Commercialization 3 (3-0-6)

Prerequisite: BBA 1121 Marketing in Practice
BGB 3310 Business Model Development
and Completed 108 credits

The vital role of the marketing mix, channel of distribution and communications, marketing channel and logistics management concepts and strategies; target markets and channel design strategy; practical and real-world applications of marketing channel concepts and strategies. The process-based approach to design creative communications, execute big idea, craft the advertising, and other marketing promotional campaigns, the principles and tools to understand consumer journey in order to develop consistent and engaging message and media strategy at each touch point.

BMK 4401 Sustainability Marketing 3 (3-0-6)

Prerequisite: BBA 1104 Fundamentals of Marketing

Sustainability discourses strategically applied in marketing to serve as basis for sustainable marketing activities that respond proactively to the need for environmental protection, social justice and economic growth. Theories and principles are discussed thoroughly to serve as a guide for companies to attain sustainable development and to inspire consumers to perform sustainable behaviors.

BMK 4402 Service Marketing 3 (3-0-6)

Prerequisite: BBA 1104 Fundamentals of Marketing

A project-based course designed to provide core and practical knowledge in marketing for service-based business. Comprehensive understanding of the unique characteristics of various services; well-rounded situation analysis and research; expanded marketing mix for services; digital marketing tools and techniques; customer relationship management; service recovery strategies; and marketing activation.

BMK 4403 Digital Media Strategies 3 (3-0-6)

Prerequisite: BMK 3202 Digital Marketing

This course focuses on media, targeting strategies and search engine optimization (SEO) that are applied to build an effective digital campaign. Students will learn the process of exposing target audience to various available digital media options and integration of digital communication tools; budget allocation; digital media planning and strategies that drive traffic, engagement, leads and sales.

BMK 4404 Digital Marketing in Practice 3 (3-0-6)

Prerequisites: BMK 3410 Digital Consumer Insights
and Completed 90 credits

Integration, synthesis, and application of overall digital marketing knowledge, principles, and tactics in creating a practical learning digital business start-up project. A framework for developing a digital project includes overall market analysis, research, the project concept,

creative digital marketing strategies, implementation and level up plan.

BMK4405 Marketing Internship 3 (300 hours)
Prerequisite: BBA 1104 Fundamentals of Marketing
 and Completed 90 credits

The practical marketing experience by working in marketing firms, retail business corporations, governmental entities, private or public organizations under the direct supervision of a designated faculty member. Students will apply marketing theoretical concepts to practice and gain valuable working experience and prepare for their future career.

BMK 4411 Sustainability Marketing 3 (3-0-6)
Prerequisite: BBA1121 Marketing in Practice

Sustainability discourses strategically applied in marketing to serve as basis for sustainable marketing activities that respond proactively to the need for environmental protection, social justice and economic growth. Theories and principles are discussed thoroughly to serve as a guide for companies to attain sustainable development and to inspire consumers to perform sustainable behaviors.

BMK 4412 Marketing Internship 3 (300 Hours)
Prerequisite: BBA 1121 Marketing in Practice
 and Completed 90 credits

The practical marketing experience by working in marketing firms, retail business corporations, governmental entities, private or public organizations under the direct supervision of a designated faculty member. Students will apply marketing theoretical concepts to practice and gain valuable working experience and prepare for their future career.

BRE 3101 Professional Seminar in Real Estate Business 1 (1-0-2)
Special seminar course tailored to provide in-depth and specialized knowledge and skills in the respective major fields through interactive workshop and training, aiming to develop the students' employability skills.

BRE 3201 Real Estate Business 3 (3-0-6)
Overview of real estate business and professional practices, special terms, nature and description of real estate, various types of property, basic rights and interests in real estate, land- use controls, forms of ownership, various real estate fields of property management, development, investment, real estate finance and real estate appraisal.

BRE 3202 Real Estate Law 3 (3-0-6)
Prerequisite: BBA 1003 Introduction to Microeconomics and Personal Finance
 for Arts students only

General principles of real estate law and legal aspects relating to real estate business, property rights, subdivision regulations, ownership in real estate, transferring and registering title, regulations of land-use and city planning, housing and condominium development laws, construction laws and other contracts related to real estate transactions.

BRE 3203	Real Estate Economics	3 (3-0-6)
Prerequisites:	BBA 1002 Microeconomics and BBA 2002 Economic and Financial Environment (For BBA student) BBA 1003 Introduction to Economics and Finance (For other students)	
Demand and supply of real estate, real estate business cycle, real estate cycle, real estate markets, urban land-use, urban land economics, market failure and remedies in real estate.		
BRE 3204	Building Design and Construction Techniques	3 (3-0-6)
Basic knowledge of techniques and process used to design and construct buildings, terms and symbols used in construction drawings, types of construction materials, construction technologies, cost estimation, process to construct building structure, basic construction scheduling techniques, architectural elements, finishing, and building mechanical systems.		
BRE 3205	Real Estate Development	3 (3-0-6)
Prerequisite:	BRE 3201 Real Estate Business	
Methods in real estate development for various types of real estate, various participants in the real estate development process in both public and private sectors, land selection, development process, including conceptual development, feasibility study, real estate cycles, market analysis, and business strategy.		
BRE 3301	Real Estate Finance	3 (3-0-6)
Prerequisite:	BBA 2002 Macroeconomics and Financial Environment of Business BRE 3201 Real Estate Business	
Financial techniques to sell and buy real estate property, types of financial institutions and sources of funds, types of loan, underwriting, analysis of project development loan and mortgage loan, factors and principal process in real estate lending, including various financial calculations used in real estate business, and government's current policies regarding real estate finance.		
BRE 3302	Real Estate Appraisal	3 (3-0-6)
Introduction to real estate appraisal, definition of value, objectives of appraisal, data analysis, land (site) and building survey, appraisal report, with emphasis on the three basic approaches to calculate value: Cost Approach, Market Approach and Income Approach.		
BRE 3303	Commercial Property Management	3 (3-0-6)
Management of income producing properties, property manager roles and duties, process for making management plans, commercial lease management, lease negotiation in theory and practice, roles and right of landlord and tenant, landlord and tenant relationship management, management and maintenance of property.		
BRE 3304	Real Estate Finance and Investment Analysis	3 (3-0-6)
Financial techniques to sell and buy real estate property, types of financial institutions and sources of funds, types of loan, underwriting, analysis of project development loan and mortgage loan, factors, and principal process in real estate lending, including various financial calculations used in real estate business, and government's current policies regarding real estate finance. Process of real estate investment and analysis, methods in real estate investment analysis, including traditional method and discounted cash flow method, prelim-financial feasibility study, real estate investment assumptions, real estate investment analysis.		

- BRE 3411 Real Estate Marketing 3 (3-0-6)**
 Application of knowledge and skills in marketing to the real estate industry, industry analyzing and developing marketing plans, techniques for marketing commercial-investment properties; planning, process, and methods of marketing including marketing program, selling and negotiation strategy, information systems supporting marketing, roles of brokerage business including services, relationship to owner, responsibilities, brokers' code of ethics, and development of a broker profession.
- BRE 3412 Sustainability in Real Estate 3 (3-0-6)**
 The site planning, building design, development, and operations of sustainable buildings, the efficiency of inputs and outputs of market production, the efficiency and effectiveness of property management, applications of sustainability in aspects of social, financial, and environmental, stability and durability of urban ecologies
- BRE 3413 Real Estate Investment Alternatives 3 (3-0-6)**
 Concepts and fundamentals for real estate investment, Methods, tools, & techniques for evaluating & selecting various real estate assets, including real estate investment vehicles, Key concepts and instruments for reducing real estate investment risk, Methods and tools for measuring the performance of real estate investments.
- BRE 3414 Facilities Operations and Management 3 (3-0-6)**
 Building engineering system and building components, facility and building components maintenance operation, energy utilization and management, building environmental management, building user's safety and health management.
- BRE 3421 Contemporary Issues in Real Estate Appraisal 3 (3-0-6)**
 Various aspects of real estate appraisal experience and practices including professional appraisal ethics, case studies, workshops, and fieldtrips related to real estate appraisal.
- BRE 3422 Implications of Real Estate Finance and Appraisal 3 (3-0-6)**
 Types of financial institutions and sources of funds, types of loan, underwriting, analysis of project development loan and mortgage loan, factors and principal process in real estate lending, and government's current policies regarding real estate finance. Introduction to real estate appraisal, definition of value, objectives of appraisal, with emphasis on the concepts of three basic approaches to calculate value: Cost Approach, Market Approach and Income Approach
- BRE 4301 Real Estate Investment Analysis 3 (3-0-6)**
Prerequisite: BRE 3301 Real Estate Finance
 Process of real estate investment and analysis, methods in real estate investment analysis, including traditional method and discounted cash flow method, prelim-financial feasibility study, real estate investment assumptions, real estate investment analysis of various real estate segments, real estate investment analysis report, other types of real estate investment vehicles.
- BRE 4302 Real Estate Project Management 3 (3-0-6)**
Prerequisite: BRE 3205 Real Estate Development
 Procedure and basic technique throughout project management life cycle to fulfill a real estate development project, planning and control project schedule, cost and quality, organization methods and project team, leadership, risk management, project feasibility

analysis and project contract.

BRE 4303 Real Estate Development and Project Management 3 (3-0-6)

Prerequisite: BRE 3201 Real Estate Business

Methods in real estate development for various types of real estate, development process, real estate cycles, conceptual development including market analysis, business strategy and land selection. Procedure and basic technique throughout project management life cycle to fulfill a real estate development project, planning and control project schedule, cost and quality, organization methods and project team, leadership, risk management, project feasibility analysis and project contract.

BRE 4411 Advanced Real Estate Investment analysis 3 (3-0-6)

Prerequisite: BRE 4301 Real Estate Investment Analysis

Comprehensive real estate feasibility analysis for both low-rise housing and condominium investments, analysis application through computer software packages with the aspects of market, finance, legal, construction, and taxation, analysis of investment risk, tax planning for investment, inflation and investment cycle, and basic strategies for investment portfolio.

BRE 4412 Contemporary Issues in Real Estate Business 3 (3-0-6)

Prerequisite: BRE 3302 Real Estate Appraisal

BRE 3304 Real Estate Finance and Investment Analysis

Comprehensive review of various special aspects of real estate business experiences and practices, group and individual real estate studies, and case study in relevant current issues.

BRE 4421 Advanced Real Estate Appraisal 3 (3-0-6)

Prerequisite: BRE 3302 Real Estate Appraisal

Advanced techniques in valuation, including the residual method, discounted cash flow method, and various real estate appraisal theories, standard practice for appraisers, valuation of pending properties, fee simple, lease fee estate and leasehold estates, use of statistics, accounting, computer software and financial analysis in appraising real estate.

BRE 4422 Valuation for Special Purpose 3 (3-0-6)

Prerequisite: BRE 3302 Real Estate Appraisal

Methods and techniques for appraisal of assets used for special purposes such as intangible assets, valuation for statutory purposes e.g. valuation of assets for non-market assets, plant and machinery, concepts to support valuation of various intellectual properties, including patent, copyright, brand name, goodwill, and share value.

BRE 4431 Contemporary Issues in Commercial Property Management 3 (3-0-6)

Prerequisite: BRE 3303 Commercial Property Management

Comprehensive review of various special aspects of commercial property management experience and practices, commercial property management research, case study in relevant current issues and fieldtrips related to commercial property management.

BRE 4441 Independent Study in Real Estate 3 (3-0-6)

Prerequisite: Consent of the Department Chairperson

Under the guidance of the Department Chairperson, a student will carry out an approved

research project in real estate business. Depth, detail and originality of the study will determine the project evaluation.

BRE 4451 **Internship in Real Estate Business** **3 (300 Hours)**

Prerequisite: **Consent of the Department Chairperson**

In the final semester, students may arrange for an Internship Program with a company related to real estate business for at least 300 working hours. Course evaluation based on daily progress record, overall training discussion report, and performance evaluation by the immediate supervisor.

BRE 4452 **Internship in Real Estate Appraisal** **3 (300 hours)**

Prerequisite: **Consent of the Department Chairperson**

In the final semester, students may participate in an Internship Program with a company related to real estate appraisal for at least 300 working hours. Course evaluation based on daily progress record, overall training discussion report, and performance evaluation by the immediate supervisor.

BRM 3211 **Risk Management and Insurance** **3 (3-0-6)**

Basic concepts of risk and insurance, terminologies used in risk management and insurance, functional operations of insurers, fundamental legal principles, insurance contract, various types of insurance such as life and health insurance, property and liability insurance, and government insurance.

BRM 3212 **Insurance Law** **3 (3-0-6)**

Prerequisite: **LAW 1201 Business Laws for Entrepreneurs**

Insurance law and Ministerial Regulations of the Kingdom pertaining to the contract of insurance in all fields such as life, accident, fire, transportation, and liability court interpretation on applicable coverage, comparison of laws in the U.K. and U.S.

BRM 3221 **Property Insurance** **3 (3-0-6)**

Prerequisite: **BRM 3211 Risk Management and Insurance**

Analysis of an insurance contract and measurement of property and net income loss exposures of family and business firm in general, major insurance policies and extension available in the Thai market, fire insurance and allied lines, Industrial All Risk business interruption insurance, motor insurance, ocean and inland marine insurance fidelity guarantee insurance, surety bond and other miscellaneous insurance.

BRM 3222 **Casualty Insurance** **3 (3-0-6)**

Prerequisite: **BRM 3211 Risk Management and Insurance**

Analysis of source of legal liability, major sources of liability loss exposures of both family and business firm and insurance coverage designed to meet those loss exposures, personal liability insurance, public liability insurance, workers' compensation employer's liability insurance, professional liability insurance, products liability insurance, Director and Officers' s liability insurance, Cyber liability insurance and a variety of miscellaneous liability insurance.

BRM 3223 **Life Assurance** **3 (3-0-6)**

Prerequisite: **BRM 3211 Risk Management and Insurance**

Features of life insurance industry, life insurance contract, life insurance policy, life insurance premium, life insurance products and supplemental benefits, life insurance policy

BRM 3401	Engineering Insurance	3 (3-0-6)
Prerequisite:	BRM 3211 Risk Management and Insurance	
Analysis and measurement of property loss exposures of the business firm, major insurance policies and extension including contractor's all risks insurance, erection all risks insurance, machinery breakdown insurance, boiler and pressure vessel insurance, consequential loss following machinery breakdown, computer all risks insurance and deterioration of stock.		

BRM 3403	Survey and Claim Management in Non-Life Insurance	3 (3-0-6)
Prerequisites:	BRM 3221 Property Insurance BRM 3222 Casualty Insurance	
Analysis of the roles and duties of the claim representative, human relations in claim, communication skill, listening skill, claim management, claim professionalism, negotiation process and styles, application of claims practice to transacting insurance business on an industry wide basis, pre-insurance survey and post-loss survey, loss-adjustment techniques using policy wording in each class of business.		

BRM 3405	Life Assurance Underwriting	3 (3-0-6)
Prerequisite:	BRM 3223 Life Assurance	
Elementary physiology and anatomy, proposals and medical report forms, main concept and process of life insurance underwriting, underwriting method, underwriting factors and underwriting aspects relating to impairments, diseases and physiological malfunctions.		

BRM 3406	Life Assurance Mathematics	3 (3-0-6)
Prerequisite:	BRM 3223 Life Assurance	
Concepts of life table, probability of death and survival, fundamentals of premium rating, analysis of components and essential factors of premium rate calculation, reserve calculation and various types of reserve in life insurance.		

BRM 3407	Claim Administration in Life Assurance	3 (3-0-6)
Prerequisite:	BRM 3223 Life Assurance	
Concepts of claim administration, roles and duties of claim analyst, regulatory requirements for claim administration, analysis of claim decision process for death claim, supplementary benefit claim, endowment claim, disability claim, annuity payment, surrenders of the policy, loans and dividends on the policy.		
BRM 3408	Life Assurance Agency Administration	3 (3-0-6)
Prerequisites:	BRM 3223 Life Assurance BBA 1104 Fundamentals of Marketing	
Life insurance agency office management concepts, agency organization and structure, ways to improve communication and workflow between insurer and agency offices, ways to organize agency office to maximize efficiency and to provide more effective sales support for agency force, office productivity, agency expenses and budgetary control, compliance and sales practices, supervisory skills, people management techniques and agency office automation.		
BRM 4312	Reinsurance	3 (3-0-6)
Prerequisite:	BRM 3211 Risk Management and Insurance	
Nature and functions of reinsurance, main types of insurers and reinsurer, legal principles and outline of the international reinsurance market, facultative, and treaty for both proportional and excess of loss reinsurance including accounts, premium and loss reserves including reinsurance audits.		
BRM 4314	Insurance Operations	3 (3-0-6)
Prerequisite:	BRM 3211 Risk Management and Insurance BBA 2102 Organization and Management	
Structure and operation of insurance companies and broking companies incorporated in Thailand, managerial practices and problems in insurance companies and broking companies, all main functions and assessment of market needs for both organizations.		
BRM 4321	Marketing in Insurance	3 (3-0-6)
Prerequisites:	BRM 3211 Risk Management and Insurance BBA 1104 Fundamentals of Marketing	
To apply marketing principle and digital technology in insurance industry with emphasis on analysis, prediction and application along with in-depth knowledge of online marketing. The implementation starts from product design, product development, marketing mix strategy i.e. product/price/place/promotion as well as customer relationship management.		
BRM 4322	Seminar in Risk Management and Insurance	3 (3-0-6)
Prerequisites:	Senior Standing and completion of 108 credits	
Comprehensive review of all aspects of risk management and insurance, various cases of operations of insurance company, topics which are relevant to professional goals and interest of students and current issues in insurance industry with emphasis on research, class discussion, and presentation.		
BRM 4401	Financial Concepts for Life Assurance	3 (3-0-6)
Prerequisites:	BRM 3223 Life Assurance BBA 2002 Economic and Financial Environment	
Managing solvency, and profitability of life insurance companies, with emphasis on financial management of insurance company, how life insurance companies pursue the key financial		

objectives, insurance financial statement analysis, product planning, product design and pricing for insurance company product, concept of how insurance company executives approach capital management and monitor the financial performance of Life insurance company.

BRM 4403 Business Analytics and Insurance Management 3 (3-0-6)

Prerequisites: BRM 3211 Risk Management and Insurance

BBA 2102 Organization and Management BBA 1102 Data and Information Literacy

The application of insurance business data, and using statistical models to transform data into business insights. The main objective is to determine which insurance datasets are useful and how they can be utilized to solve problems and increase efficiency, productivity, and revenue in insurance operation.

BRM 4404 Information Management in Insurance 3 (3-0-6)

Prerequisites: BRM 3211 Risk Management and Insurance

BBA 1102 Data and Information Literacy

Data processing techniques used in pertinent functions in all branches of insurance, specific applications related to policy control, commission, premiums, renewals, branch/broker control and costing, cost analysis and financial analysis, new information technologies such as internet and World Wide Web.

BRM 4405 Risk Control and Risk Financing 3 (3-0-6)

Prerequisites: BRM 3211 Risk Management and Insurance

BRM 4313 Enterprise of Risk Management

Two steps of risk management process (1) implementing the selected risk management techniques and (2) monitoring the results for effective control and coordination of the organization's total risk management effect.

BRM 4406 Independent Study in Risk Management and Insurance 3 (3-0-6)

Prerequisite: Consent of Department Chairperson

Under the guidance of the department chairperson, a student must carry out an approved research project in risk management and Insurance. The depth and innovativeness of the research will determine the credit to be given.

BRM 4407 Internship in Risk Management and Insurance 3 (240 hours)

Prerequisite: Consent of Department Chairperson

Students will spend 8 weeks (30 hours/week) internship with selected insurance or related business organizations. The internship will focus mainly on risk management and insurance operations of such organizations. Upon completion of the program, the students will be evaluated by their supervisor and submit a detail report of the knowledge gained.

BS 1115 Basic Chemistry 3 (2-3-5)

Atomic theory and electronic structure of atom, periodic table and periodic properties, bonding theory, stoichiometry, gases, solutions, acids and bases, oxidation-reduction reactions, chemical analysis including qualitative and quantitative analysis, steps involved in sample preparation, analysis techniques using volumetric methods, organic compounds, synthetic and natural organic polymers, and corresponding laboratory sessions.

- BS 1116 Basic Biology 3 (2-3-5)**
 Life, prokaryotic and eukaryotic cell structure, and functions of organelle in the cells, cell division, and gamete production, pattern of inheritance, gene expression, energy and photosynthesis, animal cells and plant cells, ecology, behavioral science and evolution and corresponding laboratory sessions.
- BS 1117 Basic Physics 3 (2-3-5)**
 Basic knowledge of physics, force and motion, Newton's laws and projectile motion, conservation of energy and momentum, fluids mechanics, internal energy and fundamental of thermodynamics, waves and sound, electromagnetism, electricity, light and color and introduction to advance physics for bioscience.
- BS 2020 Basic Microbiology 3 (2-3-5)**
 Prerequisite: BS 1116 Basic Biology
 Overview of microbiology in both theoretical and practical aspects, eukaryotic and prokaryotic microorganisms, viral biology, growth, and metabolisms of microorganisms, microbial genetic, classification of microbes, roles of microbes to human, environment and in the industries and corresponding laboratory sessions.
- BS 2021 Basic Biochemistry 3 (2-3-5)**
 Structure, function, and metabolism of biomolecules including carbohydrates, lipids, amino acids, protein and nucleic acids, characteristics, classification and functions of proteins, enzymes and vitamins, the introduction to gene regulation and genetic engineering and corresponding laboratory sessions.
- BSB 1101 Design Thinking in Business 3 (3-0-6)**
 This introductory business course aims to delve into diverse facets of the business world. Emphasizing the innovative approach of design thinking and business model canvas, the course encourages a customer-centered perspective and fosters the ability to identify opportunities, generate innovative ideas, and prototype solutions to address complex challenges. Through interactive workshops and practical exercises, students will learn how to apply design thinking to real-world scenarios, transforming problems into innovative business opportunities. Students will develop systematic and creative thinking skills while also honing their abilities to generate business model.
- BSB 1102 Thinking as an Economist 3 (3-0-6)**
 How economists analyze real-world problems. Topics include Six Principles of Economics: Individuals act optimally, Competition works, Measurement matters, No free lunch, Government intervention with caution, Correlation is not causality. Three core concepts: rationality, marginal analysis, and optimization
- BSB1103 Digital Literacy 3 (2-2-5)**
 Fundamental concepts and hands-on learning of data and information literacy. Exploratory data analysis. Identification, location, evaluation, usage of information for problem at hand, and data privacy issues.
- BSB 1104 Quantitative Techniques in Business 3 (3-0-6)**
 This skill-based course empowers students with the quantitative proficiency needed for success in any business discipline. By discovering the essentials of quantitative business skills from basic math, statistical concepts, and business metrics, students will build a

strong foundation to excel in future entrepreneurship, finance, marketing, and management studies through hands-on learning and practical applications.

BSB 1105 Seminar in Sustainable Business Management I 1 (1-0-2)

The course is designed to provide opportunities for new business students to get exposed to various perspectives of business firms and emerging sustainability trends such as Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) principles.

BSB 1106 Seminar in Sustainable Business Management II 1 (1-0-2)

The course is designed to prepare undergraduate business students to develop business skills to compete successfully in globalized world of business. The topics cover in this course will be related to career preparation, corporate social responsibility (CSR), environmental, social, and governance (ESG), and current issues in global business.

BSB 1107 Data Analytics and Visualization 3 (2-2-5)

Fundamental concepts and hands-on learning of Python programming and data visualization, relational database management systems, Python interactive development environments, packages, data structures, mathematical operations, functions, control statements, graphics, and web scraping. Data cleansing, descriptive statistics, and multivariate models. Relational database management systems, structured query language (SQL), and text file

BSB 1108 Marketing in Practice 3 (3-0-6)

Prerequisite: BSB 1101 Design Thinking in Business

The Marketing in practice course with a project-based and active learning approach immerses students in a hands-on exploration of marketing concepts. Through dynamic activities, workshops, real-world projects, and collaborative learning experiences, students will develop a deep understanding of marketing principles while honing their critical thinking, problem-solving, and teamwork skills. This course fosters an environment where students actively engage with marketing concepts and apply them to practical scenarios, preparing them for the dynamic landscape of modern marketing.

BSB 1109 Navigating Global Business Environment 3 (3-0-6)

Prerequisite: BSB 1101 Design Thinking in Business

The course is designed to endow students with vital skills and knowledge essential for critically analyzing and navigating the intricate realm of international business. Emphasizing the practical applications in real-world scenarios fosters the development of global business skills, empowering students to identify potential opportunities and risks while comprehending the intricacies of cross-border operations, cultural diversity, economic trends, and geopolitical influences in the current interconnected global business environment.

BSB 1110 Intercultural Communication and Negotiation 3 (3-0-6)

Prerequisite: BSB 1101 Design Thinking in Business

An immersive and skill-focused exploration of effective communication and negotiation across diverse cultural contexts aims at equipping students with practical skills to bridge intercultural gaps.

BSB 1111	Accounting for Professionals	3 (3-0-6)
Integrated set of theories and application of accounting for entrepreneurs are emphasized accounting issues for entrepreneurs related to fundamentals financial accounting, preparation and presentation of financial statements based on International Financial Reporting Standard: Income Statement, Statement of Financial Position, Statement of Cash Flows, Statement of Change in Owners' Equity and Notes to Financial Statements including ESG Sustainability disclosure. In addition, fundamentals of managerial accounting using management accounting information as managers for planning, organizing, controlling, and decision making.		
BSB 2101	Consumer Behavior and Insights	3 (3-0-6)
Prerequisite:	BSB 1008 Marketing in Practice	
Designed to cultivate critical thinking, creativity, and adept data analytics skills, this course offers a comprehensive exploration of the factors influencing consumer choices and preferences. It delves into psychological and sociocultural dimensions to unravel the complexities behind decision-making processes. Through interactive discussions, and hands-on projects, students will analyze real-world consumer trends, harnessing data-driven methodologies to extract valuable insights. By synthesizing theory and practical application, students will emerge with a profound understanding of consumer behavior, poised to make informed strategic decisions in diverse industries.		
BSB 2102	Management in Dynamic Contexts	3 (3-0-6)
Prerequisite:	BSB 1101 Design Thinking in Business	
This course adopts a forward-thinking approach through the exploration of contemporary management principles and practices. Given a rapidly changing business landscape, where agility and adaptability are paramount, this course is designed to equip students with indispensable skills of problem-solving and agile decision-making, and with tools and knowledge to optimize human resources practices to respond effectively to rapid changes and disruptions in business contexts as competent and innovative managers.		
BSB 2103	Operations and Sustainable Supply Chain Management	3 (3-0-6)
Prerequisite:	BSB 1101 Design Thinking in Business	
This course provides an overview of the principles, strategies, and practices involved in managing operations as well as logistics in the supply chains with a focus on environmental, social, and economic sustainability. It addresses the importance of integrating sustainability into supply chain operations to create a positive impact on both the organization and society.		
BSB 2104	Business Research for Practitioners	3 (3-0-6)
Prerequisite:	BSB 1104 Quantitative Techniques in Business	
This course highlights the exploration of practical research approaches tailored to business decision-making and addressing challenges. It encompasses the essence of research, the process of identifying and defining problems within business administration, structuring, and coordinating research endeavors, research methods in both qualitative research and quantitative research, and strategies for gathering data, developing the research plan, handling and scrutinizing collected data and customer insight, and effectively communicating discoveries using suitable report structures. Additionally, this course enables students to develop data analytical, critical thinking, and ethical decision-making skills necessary for conducting meaningful and impactful business research.		

BSB 2105 Seminar in Sustainable Business Management III 1 (1-0-2)
The course is designed to provide students with a comprehensive understanding of Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) principles while encouraging active engagement in practical sustainability projects. Students will be equipped with the knowledge and practical experience to contribute to the development of sustainable solutions in the corporate world.

BSB 2106 Seminar in Sustainable Business Management IV 1 (1-0-2)
The course is designed to provide students with a comprehensive understanding of Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) principles while encouraging active engagement in practical sustainability projects. Students will be equipped with the knowledge and practical experience to contribute to the development of sustainable solutions in the corporate world.

BSB 2301 Finance for Business Professionals 3 (3-0-6)
Prerequisite: BSB 1104 Quantitative Techniques in Business
Introduction to corporate financial management and a comprehensive overview of managerial perspectives for financial managers in making sound as well as ethical investment and financing decisions, including time value of money, risk and return, cost of capital, valuation of stocks and bonds, project evaluation using capital budgeting decision-analysis tools, risk analysis in project evaluation, impact of financial leverage on cost of capital and valuation, dividend policy, financial statement analysis, working capital management as well as the use of MS-Excel functions in helping calculating and making effective financial decisions.

BSB 2302 Essential Strategies for Sustainable Business 3 (3-0-6)
Prerequisite: BSB 2102 Management in Dynamic Contexts
This course introduces the essential skills required to become a successful professional strategist. Providing a solid foundation in strategic management, students will be able to develop their ability to think strategically, analyze the competitive environment, and recommend firm positioning and value creation. A case-based approach is used to reinforce student's understanding of various strategic tools and their implications. The course is delivered interactively, encouraging student engagement through discussions and presentations.

BSB 2303 Business Sustainability Management 3 (3-0-6)
Prerequisite: BSB 2102 Management in Dynamic Contexts
This course is designed to address the increasing requirement and commonness of sustainable practices in the corporate world. It emphasizes the significance of sustainability in business and aims to instill a sense of social responsibility across all aspects of an organization's value chain. Additionally, the course explores the possibilities of utilizing technology, design, and innovation to promote or impede sustainable business practices. This equips students with a diverse skill set that integrates environmental awareness, social accountability, and economic proficiency to steer towards a future that is both responsible and resilient.

BSB 2304 Developing Leadership and Sustainability Mindsets 3 (3-0-6)
Prerequisite: BSB 2102 Management in Dynamic Contexts
The course is designed to develop a balanced mindset that integrates leadership and

sustainability principles. It aims to equip students with the essential skills and strategies necessary to bloom as adept leaders in the modern landscape, and to lead with purpose, emphasizing both effective leadership practices and sustainable decision-making. Through interactive learning, discussions, and exercises, students will be guided to embark on a journey of transformational growth.

BSB 3101 Sustainable Entrepreneurship 3 (3-0-6)

Prerequisite: BSB 1101 Design Thinking in Business

The course is designed to unleash the entrepreneurial journey by blending theory and practice. Through the integration of class discussion, workshops, real-business practice, and project-based activities, students will explore entrepreneurship mindsets, ideate business opportunities using design thinking, and shape innovative ideas through data-driven insights. It fosters creative, effective problem-solving skills. Guided by an action-oriented approach, students will learn how to craft potent business plans, honing their focus for future success in the dynamic world.

BSB 3301 Project Management and Feasibility 3 (3-0-6)

Prerequisite: BSB 2103 Operations and Sustainable Supply Chain Management

Project planning procedure by considering factors in determining project objectives, setting of work system, allocation of resources, project feasibility analysis, matrix model organization, management techniques and operation procedures in accomplishing goal such as implementation, communication, coordination, controlling and evaluation of the project.

BSB 3302 Strategic Brand Management 3 (3-0-6)
and Brand Communications

Prerequisite: BSB 1108 Marketing in Practice

Students will embark on a journey through the integration of branding and brand identity design through workshops, coaching and brainstorming for creating the brand ideas. Students will enhance mainly their creative skills, critical thinking and communication skills. This transformative experience brings brand strategy to life by crafting value propositions and tangible customer experiences, driving sustainable growth. It allows students to explore the brand-building process, encompassing insights, touch points, customer journeys, archetypes, identity, personality, and communication strategies.

BSB 3303 Business Intelligence and Strategic Decisions 3 (3-0-6)

Prerequisite: BSB 2302 Essential Strategies for Sustainable Business

The course provides an overview of how business intelligence can support strategic decision-making and an assessment of business performance. Business intelligence knowledge allows students to discover problems and opportunities for the company. Through the utilization of data and the process of decision-making, students are able to cultivate and enhance their data analytic skills, allowing them to effectively visualize and frame relevant business implications that are essential for thriving in the competitive global business landscape.

BSB 3304 Strategic Supply Chain Management 3 (3-0-6)

Prerequisite: BSB 2103 Operations and Sustainable Supply Chain Management

Definition and different levels of strategies, supply chain strategy, process thinking, global supply chain design, supply chain mapping and formulation, supply chain cost management, supply chain relationship management, and performance measurement matrix design and evaluation.

BSB 3305 Integrative Marketing Management 3 (3-0-6)
Prerequisite: BSB 3302 Strategic Brand Management and Brand Communications
This course is designed to empower students with the fundamental skills and knowledge necessary to thrive in the dynamic realm of modern marketing. Through a dynamic blend of hands-on development of marketing plan, illuminating case studies, interactive activities and engaging lectures, students will cultivate essential proficiencies in critical thinking, innovative problem-solving, effective communication, digital fluency, and data analytics. Emphasizing the fusion of customer insights and technological adeptness, the course will guide students in crafting imaginative and coherent marketing strategies within the framework of contemporary marketing paradigms and methodologies to meet customer needs.

BSB 3306 Integrative Strategic Management 3 (3-0-6)
Prerequisite: BSB 2302 Essential Strategies for Sustainable Business
 and Completion of 90 Credits
This capstone course aims to provide students with a comprehensive understanding of the principles and practices that drive successful strategic decision-making in the dynamic business landscape. The course focuses on developing holistic business skills and strategic mindsets, emphasizing critical thinking, problem-solving, and the integration of various functional areas within an organization. Through a simulation-based approach, students will cultivate the ability to formulate, execute, and evaluate effective business strategies that align with organizational goals.

BSB 3401 Independent Study I 3 (3-0-6)
Prerequisite: Completion of 81 Credits and
 Approval from the chairperson and / academic advisor prior
 to registering for the course
Developing students' ability to apply a theoretical approach to the real-world problems of any organization in a selected industry in Thailand, a specific area of concentration will be chosen by students upon approval of the chairperson or assigned advisor.

BSB 3402 Independent Study II 3 (3-0-6)
Prerequisite: Completion of 81 Credits and
Approval from the chairperson and / academic advisor prior to registering for the course
Developing students' ability to apply a theoretical approach to the real-world problems of any organization in a selected industry in Thailand, a specific area of concentration will be chosen by students upon approval of the chairperson or assigned advisor.

BSB 3403 Independent Study III 3 (3-0-6)
Prerequisite: Completion of 81 Credits and
Approval from the chairperson and / academic advisor prior to registering for the course
Developing students' ability to apply a theoretical approach to the real-world problems of any organization in a selected industry in Thailand, a specific area of concentration will be chosen by students upon approval of the chairperson or assigned advisor.

BSB 3404 Special Topics in Sustainable Business 3 (3-0-6)
 Management I
Prerequisite: Completion of 81 Credits
Current trends and development in business management and professional skills through an experiential-learning approach. Practice-based issues of start-ups of entrepreneurs and

corporate entrepreneurship are discussed.

BSB 3405 Special Topics in Sustainability Business 3 (3-0-6)
Management II

Prerequisite: Completion of 81 Credits

Current trends and development in business management and professional skills through an experiential-learning approach. Practice-based issues of start-ups of entrepreneurs and corporate entrepreneurship are discussed.

BSB 3406 Special Topics in Sustainability Business 3 (3-0-6)
Management III

Prerequisite: Completion of 81 Credits

Current trends and development in business management and professional skills through an experiential-learning approach. Practice-based issues of start-ups of entrepreneurs and corporate entrepreneurship are discussed.

BSB 3407 Advanced Seminar in Sustainability Business 3 (3-0-6)
Management I

Prerequisite: Completion of 81 Credits

Prepare undergraduate business students to develop advanced business skills to compete successfully in globalized world of business. The topics cover in this course will be related to career preparation, corporate social responsibility, and current issues in global business.

BSB 3408 Advanced Seminar in Sustainability Business 3 (3-0-6)
Management II

Prerequisite: Completion of 81 Credits

Prepare undergraduate business students to develop advanced business skills to compete successfully in globalized world of business. The topics cover in this course will be related to career preparation, corporate social responsibility, and current issues in global business.

BSB 3409 Advanced Seminar in Sustainability Business 3 (3-0-6)
Management III

Prerequisite: Completion of 81 Credits

Prepare undergraduate business students to develop advanced business skills to compete successfully in globalized world of business. The topics cover in this course will be related to career preparation, corporate social responsibility, and current issues in global business.

BSB 3410 Educational Business 3 (3-0-6)

This course explores the dynamic field of educational entrepreneurship, equipping students with the knowledge and skills to create, manage, and assess sustainable educational initiatives. It provides an understanding of the role of education in promoting sustainability and sustainable development.

BSB 3411 Public and Business Administration 3 (3-0-6)

The course equips students with the knowledge and skills needed to bridge the gap between public administration and private enterprise, enabling students to become effective leaders who can drive positive change in the pursuit of sustainability and responsible business practices.

BSB 3412	Theories and Current Issues in Finance	3 (3-0-6)
This course provides students with the knowledge and skills needed to navigate the evolving landscape of finance, enabling them to make financial decisions that align with sustainability objective and contribute to the responsible and sustainable business practices of the future.		

BSB 3413	Theories and Current Issues in Management	3 (3-0-6)
This course offers a comprehensive exploration of foundational management theories and their contemporary applications in the context of sustainable and responsible business practices. Students will be trained to lead organizations that prioritize ethical decision-making, environment stewardship, social responsibility, and long-term sustainability.		

BSB 3414	Theories and Current Issues in Marketing	3 (3-0-6)
This course offers an in-depth exploration of fundamental marketing theories and their contemporary applications within the framework of sustainable and responsible business practices. It explores how marketing practices can be aligned with sustainability goals, emphasizing responsible advertising, consumer behavior, and ethical marketing.		

BSB 3415	Theories and Current Issues in Hospitality and Tourism Management	3 (3-0-6)
This course offers an in-depth exploration of fundamental theories and contemporary challenges in the dynamic field of hospitality and tourism, with a strong focus on sustainable and responsible business practices, including the impact of technology, changing consumer preferences, and the role of cultural sensitivity.		

BSB 3416	Theories and Current Issues in Logistics Management	3 (3-0-6)
This course offers a comprehensive exploration of foundational logistics theories and their contemporary applications within the context of sustainable and responsible business practices. It explores how logistics and supply chain practices can be aligned with sustainability goals, emphasizing responsible sourcing, green transportation, and ethical logistics.		

BSB 3417	Theories and Current Issues in Accounting	3 (3-0-6)
This course offers a comprehensive exploration of foundational accounting theories and their contemporary applications within the context of sustainable and responsible business practices. It emphasizes current accounting trends and challenges, including the impact of digital transformation, integrated reporting, and the role of transparency in sustainable accounting.		

BSB 3418	Theories and Current Issues in Digital Business Management	3 (3-0-6)
This course offers a comprehensive exploration of foundational theories and contemporary challenges in the realm of digital business, with a strong emphasis on sustainable and responsible business practices. It explores how digital business practices can be aligned with sustainability goals, emphasizing responsible digital innovation, ethical data handling, and the environmental impact of technology.		

BSB 3419 Theories and Current Issues in Real Estate Management 3 (3-0-6)

This course offers an extensive exploration of fundamental theories and contemporary challenges in real estate management, with a strong emphasis on sustainable and responsible business practices. It explores current real estate trends and challenges, including the role of smart cities, green building certifications, and sustainable community planning.

BSB 3420 Theories and Current Issues in Insurance 3 (3-0-6)

This course offers a comprehensive exploration of fundamental theories and contemporary challenges in the insurance industry, with a strong emphasis on sustainable and responsible business practices. It explores the role of insurtech, micro insurance, and insurance solutions for sustainable development.

BSB 3421 Theories and Current Issues in Economics 3 (3-0-6)

This course offers a comprehensive exploration of fundamental economic theories and their contemporary applications within the context of sustainable and responsible business practices. It explores the impact of globalization, digital transformation, and the role of economics in achieving sustainable development.

BSB 3422 Practical Sustainability Insights 3 (3-0-6)

Prerequisite: BSB 2303 Business Sustainability Management

This course empowers students with the knowledge and skills needed to navigate the complexities of sustainability in practical terms. Guest lectures from industry experts provide a deep dive into the real-world application of sustainability principles, preparing students to drive positive change within organizations. The course encourages students to explore practical sustainability solutions and engage in critical discussions about the role of sustainability in the business world.

BSB 3423 Corporate Sustainability Project 3 (3-0-6)

Prerequisite: BSB 2303 Business Sustainability Management

This course offers an experiential learning opportunity for students, where they collaborate directly with a company on designated sustainability projects. This unique opportunity allows students to contribute to and learn from sustainable practices in action. Course lecturer and industry experts provide guidance and support throughout the course to ensure the successful execution of sustainability projects.

BSB 3424 Innovative Sustainability Solutions 3 (3-0-6)

Prerequisite: BSB 2302 Business Sustainability Management

The course aims to empower students to address pressing global sustainability challenges through creative and pioneering approaches. It explores how innovation, technology, and strategic thinking can drive positive changes in the pursuit of a more sustainable and responsible future. Guest speakers from industry and sustainability-focused organizations provide real-world insights and inspire students to apply innovative solutions to real-world problems.

BSB 3425 Sustainable Business Management Internship I 3 (90 hours)
(Knowledge)

Prerequisite: Approval from the chairperson and / academic advisor prior to registering for the course

A 1-semester internship (90 hours) designed to provide students with an opportunity to gain real- world experience, develop essential skills, and make meaningful contributions to corporate sustainability efforts. Formal report and presentation at the end of the internship period is a requirement.

BSB 3426 Sustainable Business Management Internship II 3 (90 hours)
(Critical Thinking and Problem-Solving)

Prerequisite: Approval from the chairperson and / academic advisor prior
to registering for the course

A 1-semester internship (90 hours) designed to provide students with an opportunity to gain real- world experience, develop essential skills, and make meaningful contributions to corporate sustainability efforts. Formal report and presentation at the end of the internship period is a requirement.

BSB 3427 Sustainable Business Management Internship III 3 (90 hours)
(Creativity)

Prerequisite: Approval from the chairperson and / academic advisor prior
to registering for the course

A 1-semester internship (90 hours) designed to provide students with an opportunity to gain real- world experience, develop essential skills, and make meaningful contributions to corporate sustainability efforts. Formal report and presentation at the end of the internship period is a requirement.

BSB 3428 Sustainable Business Management Internship IV 3 (90 hours)
(Collaboration and Communication)

Prerequisite: Approval from the chairperson and / academic advisor prior
to registering for the course

A 1-semester internship (90 hours) designed to provide students with an opportunity to gain real- world experience, develop essential skills, and make meaningful contributions to corporate sustainability efforts. Formal report and presentation at the end of the internship period is a requirement.

BSB 3429 Sustainable Business Management Internship V 3 (90 hours)
(CSR)

Prerequisite: Approval from the chairperson and / academic advisor prior
to registering for the course

A 1-semester internship (90 hours) designed to provide students with an opportunity to gain real- world experience, develop essential skills, and make meaningful contributions to corporate sustainability efforts. Formal report and presentation at the end of the internship period is a requirement.

BSB 3430 Sustainable Business Management Internship VI 3 (90 hours)
(Data Analysis)

Prerequisite: Approval from the chairperson and / academic advisor prior
to registering for the course

A 1-semester internship (90 hours) designed to provide students with an opportunity to gain real- world experience, develop essential skills, and make meaningful contributions to corporate sustainability efforts. Formal report and presentation at the end of the internship period is a requirement.

BSB 3431 Business Communication Excellence for Sustainability 3 (3-0-6)
The course is designed to equip students with the essential communication skills required to thrive in sustainable business environments. An emphasis is on communication strategies tailored to the unique challenges and opportunities presented by sustainable business practices. Students will learn how to convey sustainability initiatives, goals, and progress with clarity and impact.

BSB 3432 Entrepreneurship and Small Business Management 3 (3-0-6)
for Sustainability
This course provides a foundation in entrepreneurship principles with a particular focus on sustainability. Students will learn the intricacies of crafting business plans that prioritize sustainability goals, ensuring long-term viability and resilience.

BSB 3433 Digital Literacy and Sustainable Business Technologies 3 (3-0-6)
This course is designed to equip students with the knowledge and competence needed to excel in the modern business landscape, by integrating sustainability principles into the digital realm. Students will explore how digital technologies can be harnessed to advance sustainability initiatives, reduce environmental impact, and enhance social responsibility in business operations.

BSB 3434 Microsoft Office Essentials for Corporate Sustainability 3 (3-0-6)
This course is designed to provide students with a comprehensive understanding of Microsoft Office applications while emphasizing their relevance in the context of sustainable business practices. Students will acquire proficiency in key Microsoft Office applications, including Word, Excel, PowerPoint, and Outlook. They will also explore sustainable practices for remote teamwork and file sharing by using cloud-based collaboration tools within the Microsoft Office 365 suite.

BSB 3435 Sustainable Project Management with PMI Preparedness 3 (3-0-6)
This course is designed to equip students with the knowledge and skills needed to excel in project management while emphasizing sustainable practices. It integrates Project Management Institute (PMI) best practices, preparing students for the globally recognized PMI certifications.

BSB 3501- 3509 Special Topics in Business 3 (3-0-6)
This course is designed to explore current and diverse aspects of the business world. Emerging trends and development as well as specialized areas within the business scope are discussed.

BSB 3601- 3609 Special Topics in Marketing 3 (3-0-6)
This course is designed to discover current and diverse aspects of the marketing field. Emerging trends, critical issues, and specialized areas within the area of marketing are discussed.

BSB 3701- 3709 Special Topics in Management 3 (3-0-6)
This course is designed to discover current and diverse aspects of the management field. Emerging trends, critical issues, and specialized areas within the area of management are discussed.

BSB 3801- 3809	Education for Business	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in business education		
BSB 3901- 3909	Multidisciplinary Business Studies	3 (3-0-6)
Contemporary concepts, approaches, applications and practices in multidisciplinary business studies.		
BSC 3201	Logistics and Supply Chain Management	3 (3-0-6)
Prerequisite:	BBA 2102 Organization and Management	
Logistics and supply chain management theory, segmentation, forecasting techniques, sourcing management, operations management, sales and operations planning, inventory management, warehouse management, logistics management, transportation, and technology in supply chain.		
BSC 3202	Supply Chain Innovation and Technology	3 (3-0-6)
Prerequisite:	BBA 2102 Organization and Management	
Technology introduction process, research and development control and management in supply chain, supply chain digital transformation and company's innovation strategy, product/ process/technology life cycle, innovation process generation and implementation, agile project management in supply chain.		
BSC 3203	Lean Manufacturing and Agile Supply Chain	3 (3-0-6)
Prerequisite:	BSC 3201 Logistics and Supply Chain Management	
Lean manufacturing systems, manufacturing waste management, designing lean process, materials planning and control, production process aspects, numerical data linkages in supply chain, determination of production schedule and dispatching, production control system, implementation, inventory management, demand management, and agile supply chain.		
BSC 3204	International Transportation and Distribution Management	3 (3-0-6)
Prerequisite:	BSC 3201 Logistics and Supply Chain Management	
International transportation modes selection and management system, transportation routing analysis and management, microanalysis of logistics and transportation services, distribution operations, transportation costing, distribution networks management, intermodal transportation, transportation mode interface, domestic and international transportation law, international commercial terms (incoterms), and Greater Mekong Subregion Cross-Border Transportation Agreement (GMS CBTA).		
BSC 3205	Warehousing and Material Handling	3 (3-0-6)
Prerequisite:	BSC 3201 Logistics and Supply Chain Management	
Warehousing operations and systems, warehousing pallet, case, and small items storage and retrieving systems, order profile, functional analysis, warehouse management system (WMS), layout, resources, and warehousing development system.		
BSC 3301	Business Analytics	3 (3-0-6)
Prerequisite:	SA 2001 Business Statistics II	
Identification, evaluation, and capture business analytic opportunities that create value. Basic analytic methods, case studies, how to use data, descriptive and predictive capabilities, forecasting techniques, the use of optimization to support business decision-		

making, and the concept of big data.

BSC 3401 Industrial Engineering Management 3 (3-0-6)

Prerequisites: SA 2001 Business Statistics II
BBA 2102 Organization and Management

Management of engineering aspects of an operation, concept of re-engineering of process and product, application of time motion study, machinery utilization, development of work structure, work flow, and work calculation from engineering standpoint.

BSC 3402 Quantitative Analysis 3 (3-0-6)

Prerequisites: SA 2001 Business Statistics II
BBA 2102 Organization and Management

Probability concepts, forecasting, mathematical decision making techniques, normal distribution theory, decision trees, game theory, simplex method, simulation, and linear programming.

BSC 4302 Procurement and Supply Management 3 (3-0-6)

Prerequisite: BBA 2105 Operations and Supply Chain Management

Roles and objectives of procurement and supply functions, procurement and supply strategies, materials management, supplier selection and evaluation, strategic outsourcing, global sourcing, supply partnerships, price/cost analysis, bargaining and negotiations, procure to pay process, procurement policy, ethics and governance, and environmental sustainability.

BSC 4303 Supply Chain Risk Management 3 (3-0-6)

Prerequisite: BSC 3201 Logistics and Supply Chain Management

Sources of supply chain risk and their impact on supply chain performance, supply chain risk management process, and strategies to help mitigate supply chain risk, and case studies.

BSC 4304 Strategic Supply Chain Management 3 (3-0-6)

Prerequisite: Senior standing (118 credits)

Definition and different levels of strategies, supply chain strategy, process thinking, global supply chain design, supply chain mapping, supply chain cost management, relationship management, and performance measurement.

BSC 4305 Seminar in Supply Chain 3 (3-0-6)

Prerequisite: Senior standing (118 credits)

Current logistics and supply chain conditions, problems, and solutions, class discussion, case studies, business exposure, guest speaker, research and presentation.

BSC 4403 Internship in Supply Chain 3 (300 hours)

Prerequisite: Consent of the Department Chairperson

Internship program with an industrial company for not less than 300 hours of work. Weekly progress reports and approved by the student's immediate supervisor must be submitted. A report submission and final presentation must be given.

BSC 4404 Information Technology in Supply Chain 3 (3-0-6)

Prerequisites: BBA 1102 Data and Information Literacy
BSC 3201 Logistics and Supply Chain Management

Conceptual and practical issues in information systems to aid in decision-making in industry, information technology for resource planning and scheduling, supply chain

decision support system. Execute logistic processes and transactions in SAP.

BT 2012 Introduction to Food Biotechnology 3 (3-0-6)
Role and importance of food biotechnology and processing of produce for added value product. Food innovation based on modern biotechnology industries, including medicine and agriculture, genetic Engineering, nanotechnology, waste management, biodegradation, patents, and laws related to biosecurity. Case study of the utilization of biotechnology and investment in food business.

BT 3020 Design Thinking and Research Design 3 (3-0-6)
New product idea development and its concept generation using systematic approach of design thinking techniques and tools. Concepts of scientific methods, experimental designs, corresponding statistic models and the data analysis techniques with application to food technology and biotechnology.

BT 4001 Food Biotechnology World Trend 3 (3-0-6)
Preparation and delivery of Scientific research paper presentation, student presentation of selected scientific paper, and presentation of Food Biotechnology trends by experts in the field.

CA 1021 Introduction to Advertising and Branding 3 (3-0-6)
Theories in advertising and branding, basic principles of advertising and branding, role of advertising and branding, products and services to consumers, analysis of products, markets and consumers. The course also covers process of the media selection, judgment of executions for advertising and branding, function and services of advertising and branding agency, including ethics and responsibility in the professions.

CA 1023 Introduction to Live Event Creation and Management 3 (2-2-5)
Basic principles and the process of communication through live shows, event and performance, etc. including work flow, personnel and job allocation needed in putting up live show as well as considerations to be made for a stage and a broadcast.

CA 1024 Introduction to Digital Media Communication 3 (2-2-5)
The course addresses the influential histories of communications media and technological development, focusing on the shift from analog to digital practices and cultures that began mid-century and continues to the present, the development of motion picture, radio, television and new media, general program production, function and relationship between different personnel involved, including basic production of digital media projects.

CA 1100 Introduction to Human Communication 3 (3-0-6)
Principles of communication, definition and types of communication, including principles of intrapersonal communication, interpersonal communication, small group communication, public communication, mass communication, and the principles of green communication for sustainable development.

CA 1101 Introduction to Strategic Communication 3 (3-0-6)
Theories, basic principles and roles of communication with stakeholders in various contexts. Analysis and strategic decision behind products, markets and consumers. Basic principles and tools of image management and strategic communication. Including ethics and responsibility in the professions

- CA 1102 Introduction to Creative Communication 3 (3-0-6)
Research and analyze trends of any upcoming media platforms. Advantages and limits and selection of each medium. Creative design thinking, idea development and prototype. Learning theories for rhetoric, semiotics, uses and gratifications, and technological determinism to communicate creatively in various media.
- CA 1103 Introduction to Computer Graphic Design 3(2-2-5)
Foundation of Software Illustrator (Vector Graphic) and Photoshop (Raster Image) such as Photomontage, Basic image manipulation and retouching. Also learn how to manage Files Format, File Usage, to produce and present idea through Basic Layout to get appropriate design print and screen based media.
- CA 1104 Creative Production Management 3 (2-2-5)
Basic understanding of Pre-Production, Production, Post-Production including Music Video, Sound Design, Acting, Casting, Theatre, Script Writing, Movie Analysis, TVC, Cinematography, Break Down and Production Management, Creative thinking design through group brainstorming to present interesting storytelling through VDO Production by using Digital Media platform to manage basic creative production.
- CA 1105 Introduction to Innovative Digital Business and Sustainable Communication 3 (3-0-6)
Principles of innovative businesses including online banking and e-commerce, metaverses and digital assets, online games and play-to-earn, game marketing and branding, monetization of creative ideas in the digital world, use of marketing communication technology, principles of social enterprises, social communication, social campaign and marketing, development communication and projects, sustainable communication and development, environmental and green communication, and health communication.
- CA 1110 Art and Beauty of Living 3 (2-2-5)
A study of understanding Arts in relation with beauty of living and life appreciation through various genres of Creative Arts; Visual Art, Music, Literature, Film and Performing Arts. Motivating conversations about ideas, concepts, images, development of sensitivity. Exploration of feeling and expression. To help enhancing integrated ideas, creativity, appreciation, and sharpening living happiness.
- CA 1201 Creative Photography 3 (2-2-5)
Learn the art of capturing image in a fun, curious and experimental way. Explore various styles of digital photo taking both in color and in black and white. Incorporate design principles, traditional photography techniques with digital post processing software to attain desirable look and feel. Use an art criticism process to evaluate, explain and measure artistic growth.
- CA 1202 Computer Graphic for Presentation Design for Pitching 3 (2-2-5)
Designing presentations and presentation elements layout to create effective, impactful, and professional marketing and campaign planning presentations in professional business contexts using computer graphic.

CA 2100	Psychology and Persuasion in Communication	3 (3-0-6)
Prerequisite:	CA 1100 Introduction to Communication	
Components, tools, and applications of basic psychology and social psychology for persuasive communication, audience behavior analysis, including the ethics in persuasive communication.		
CA 2101	Presentation and Public Speaking	3 (2-2-5)
Prerequisite:	CA 1100 Introduction to Communication	
Concept and practice in presentation and public speaking. Learners can use presentation aids to successfully communicate ideas and deliver effective presentation skills for both individual and business success.		
CA 2102	Introduction to Marketing Communication	3 (2-2-5)
Prerequisite:	BBA 1004 Essential Marketing for Entrepreneurs CA 1101 Introduction to Strategic Communication	
Market analysis, customer segmentation, targeting, and insights, marketing communication tools and functions, selection and integration of marketing communication tools to achieve integrated marketing communication objectives, identifying key performance indicators for evaluation that are essential for businesses.		
CA 2110	Media Literacy and Ethical Concerns	3 (3-0-6)
Prerequisite:	CA 1100 Introduction to Communication	
Elements and concepts of the macro-environment structure (political, economic, social, technological, legal, and environmental structures), relationship between media and individuals, media literacy, role of media in shaping and reflecting the social realities, ethical issues media industry.		
CA 2120	Interactive and Digital Platform Design	3 (2-2-5)
Prerequisite:	CA 1103 Computer Graphic Design	
Design interface of website and mobile application with the principles of UX/UI, sitemap, wire frame, and digital marketing. Design websites and mobile application aligns with upcoming trend by using prototype program, and create digital broadcasting or live streaming contents in order to enhance the interactive users' experience.		
CA 2130	Communication Arts Research and Tools	3 (3-0-6)
A study of basic research methodology for communication arts, including understanding the nature and its roles in designing and implementing different types of research tools and techniques to provide data in business decision making and communication campaigns.		
CA 3100	Consumer Insight and Tools	3 (3-0-6)
Prerequisite:	CA 1101 Introduction to Strategic Communication	
A study of consumer insight including concepts, principles, theories and case studies. Learners will use research tools and techniques to identify consumer insights for customer-focused plans and brand communications.		
CA 3101	Strategic Brand Communication	3 (3-0-6)
Prerequisite:	CA 2102 Principles of Marketing Communication	
Business, brand, and marketing analyses for branding and brand communication, crafting brand identity, brand position, brand personality, brand elements, using tools of brand communication to build brand equity.		

CA 3102	Media Planning	3 (3-0-6)
Prerequisite:	CA 1101 Introduction to Strategic Communication	
The study of media planning based on media brief. Learners will analyze types of target audience, marketing communication and brand communication objectives, timing and media cost in buying efficiently, including strategies and assessment.		
CA 3110	Storytelling for Creative Communication	3 (2-2-5)
Prerequisite:	CA 1102 Introduction to Creative Communication	
An understanding and practice in storytelling for creative communication. Learners will use idea generation techniques and inspirational sources to design storytelling creatively for communication.		
CA 3111	Creative Entrepreneurial Project Management	3 (2-2-5)
Prerequisite:	CA 1104 Creative Production Management	
Integration of knowledge, skills, and techniques in order to conduct research for creative entrepreneurial project proposal, management and to create plan and campaign for live event project pitching. Process of show directing in live events and performance, script analysis; conveying theme, concept & idea. Stage composition and blocking design, rehearsal process.		
CA 3112	Sound Design for Communication	3 (2-2-5)
Prerequisite:	CA 1104 Creative Production Management	
Principles of sound design. Sound analyzing, recording on set, synthesizing; such as music, environmental sound, ambience sound, automated dialogue replacement (ADR), including sound editing and mastering. To have knowledge and skills for using audio equipment, such as, wireless microphone, boom microphone, and the recording studio. To design sound and music for video production and live events.		
CA 3120	Entrepreneurial Principles and Practices for Communication Arts	3 (3-0-6)
Prerequisite:	BBA 1004 Essential Marketing for Entrepreneurs	
A study of concepts, principles, theories, and case studies in strategic and creative entrepreneurship for communication arts students. Ability to integrate knowledge and skills to manage communication arts and entrepreneurship projects.		
CA 3130	Creative Commercial Communication Internship	1 (160 Hours)
An internship program assigning students to train with professionals in the communication arts industry and related fields. Students are required to continuously work for at least 160 working hours and present the training results to the instructors.		
CA 4100	Creative Commercial Communication Workshop	3 (2-2-5)
Prerequisite:	CA 3120 Entrepreneurial Principles and Practices for Communication Arts	
A workshop training in creative commercial communication under the supervision of the instructor.		
CDI 2202	Motion Graphics and Storytelling	3 (2-2-5)
Prerequisite:	CA 1103 Introduction to Computer Graphic Design	
Basic motion design, audio assets and integration, effects control, 3D space and compositing, rotoscoping, key frame interpolation, pre-composition, narrative structure,		

concept, and storyboard. The design concept to promote understanding of the human heritage and globalization sustainability idea.

CDI 3206	Sound Production	3 (2-2-5)
Sound equipment and material, fundamental concepts and techniques, relationship of sound and moving images, ambiance, foley, audio effects, voice-over, sound recording and reproduction, sound editing and mixing, digital sound creation and post-production		

CDI 3203	Animation Foundation and Pre-production	3 (2-2-5)
Basic animation principles, narrative script, beat board, storyboard, character and storytelling visual development, body and animation mechanics, animatics		

CDI 3204	3D Modeling	3 (2-2-5)
Prerequisite:	AAD 1004 3D Foundation	
Three-dimensional space principles, topology and polygon theory, mechanical and organic modeling, SLR (Shade, Lighting, And Rendering), turntables, image sequences, file output		

CDI 3205	Short Animation	3 (2-2-5)
Research on story development, beat board, storyboard, block shot, conceptual development, animatics, staging, straight ahead and pose to pose movement, animation test, final animation with sound. The story development will be integrated to the green design concept, social concern and human crisis, world heritage, Thai art and culture, and the idea of sustainability.		

CDI 3206	Sound Production	3 (2-2-5)
Sound equipment and material, fundamental concepts and techniques, relationship of sound and moving images, ambiance, foley, audio effects, voice-over, sound recording and reproduction, sound editing and mixing, digital sound creation and post-production.		

CDI 3207	Concept Art and Visual Development Design	3 (2-2-5)
Conceptual development and storyline, character and scene development, preliminary sketch and point of reference, mood, tone, and color palette of imaginary worlds. The concept design can be concerned to the world and local heritage.		

CDI 3208	3D Animation and Movement Analysis	3 (2-2-5)
Prerequisite:	CDI 3204 3D Modeling	
12	Principle of animation, turntable, walk cycle, jumping, primary movement and secondary movement in a shot, apply principle to the scene, facial expression and lip sync	

CDI 3209	Shading Lighting and Rendering for Game	3 (2-2-5)
Prerequisite:	CDI 3204 3D Modeling	
Ambient occlusion, shadow projection and volume, studio and exterior lighting, pixels and color interpolation, vertices and texture maps, screen space projection and rasterization		

CDI 3210	Digital Compositing and Matte Painting	3 (2-2-5)
Prerequisite:	CA 1103 Introduction to Computer Graphic Design	
Fundamental image processing techniques, matte painting, image-based lighting, modeling and rendering, transparency and specularities, visual effects workflow and pipeline		

CDI 3211	Game Design	3 (2-2-5)
Fundamentals of game design, elements of games and narrative design, game criticism and analysis, system mechanics and dynamics, development process and playful experiences, playable prototype		
CDI 3270-74	Selected Topics in Digital Imagery Practices	3 (2-2-5)
An exposure and exploration of selected topics in digital imagery practices. The topics will be announced semester by semester.		
CDI 4212	AR and VR Concept Design	3 (2-2-5)
User interface and user experience design, 3D interactive and procedural graphics, spatial design, virtual and augmented reality, rapid prototyping, immersive reality technologies and applications		
CDI 4213	Character and Props Design	3 (2-2-5)
Designing characters, functional character designs, designing variety styles for characters and what it needs to make appealing and iconic character design.		
CDI 4214	3D Sculpting	3 (2-2-5)
Modeling, sculpting, texturing, and posing models in high resolution detail. This will also include the creation of normal and displacement maps that will allow the model to be displayed correctly in Maya.		
CDI 4215	Digital Texture and Material	3 (2-2-5)
Foundation concept in texturing material, hard surface, organic object texture, advance UV setup for 3Dpainting texture software		
CDI 4216	3D Character Animation	3 (2-2-5)
3D character animation, weight and physic, pose and mechanics of character movement, variety of movement situation		
CDI 4217	Lip Sync and Facial Expressions	3 (2-2-5)
Facial expression, lip sync techniques, fundamental of emotion, animating with the recorded dialogue, referencing footage, Timing and Spacing, lip syncing, graph editor		
CE 1000	Digital Literacy for Engineers	3 (3-0-6)
Basic digital tools and digital skills for engineers in office environments; online collaboration; the internet including internetworking; information security		
CE 2102	Data Structures and Algorithms	3 (3-0-6)
Prerequisite:	BG1221 Computer Programming	
Various type of data structure: array, string, stack, queue, dequeue, tree, binary tree, B-tree, AVL-tree; data searching and sorting; storage allocation; coding; table handling		
CE 2103	Object-Oriented Programming	3 (3-0-6)
Prerequisite:	BG1221 Computer Programming	
Object-oriented software coding paradigm and implementation through hands-on experience using a cross platform compiler. Basic syntax, data structures, operators, loops, functions, arrays, strings, pointers. Class design, Object instances, data encapsulation (public, private, protected), operator overloading, pass by reference/value, use of		

inheritance and interfaces, using polymorphism with up/down casting, applying abstraction in the design process separating code into interface and implementation.

CE 2104 Software Design and Development 3 (3-0-6)

Prerequisite: CE 2103 Object-Oriented Programming

Software design principles and practices; design patterns; software reuse; testing; event driven programming and concurrency; graphical user interface design and development; Team development.

CE 2703 Introduction to Computer Systems 3 (3-0-6)

Digital computer organization, memory unit, input-output device units, A/D conversion, D/A conversion, computer interface, procedure control, multiutilization, multiprogramming, multiprocessing, on-line computer systems, processing program, system design.

CE 2704 Digital Logic Design 3 (3-0-6)

Prerequisite: BG 1213 Physics II or

BG 2208 Discrete Mathematics

Number system; logic combination: logic systems and Boolean algebra, comparator; Karnaugh map, tabulation method; combination logic circuits: adder, subtract, multiple output circuits, encoder, decoder, multiplexer, demultiplexer, ROMD, sequential circuits: synchronous and asynchronous circuits, flip-flops, counter circuits, registers

CE 2705 Digital Logic Design Laboratory 1 (0-3-2)

Prerequisite or Co-requisite: CE 2704 Digital Logic Design

Experiments on the designs of gate, digital and switching circuits; interconnection of logic modules; counter; control circuits; arithmetic units; memories; small computer circuits.

CE 2709 Computer Architecture 3 (3-0-6)

Prerequisite: CE 2703 Introduction to Computer Systems or
CE 2704 Digital Logic Design

Architecture of a general-purpose computer, design methodology, basic concepts of computer control, memory hierarchies, input-output organization, advanced computer architecture.

CE 3003 Mobile Applications Development 3 (3-0-6)

Prerequisite: CE 2103 Object-Oriented Programming

Principles of mobile application design and development including mobile application development life-cycle, tools and frameworks for development, user interface design, user experience, programming techniques, data management, design patterns, network handling, development of standalone applications and applications interface to enterprise or cloud systems.

CE 3103 Computer Operating Systems 3 (3-0-6)

Prerequisite: BG 1205 Calculus II or

CE 2102 Data Structures and Algorithms

Components and types of operating systems, command interpreter, management of main storage, file storage, data management, I/O management, device management; resource protecting; freestanding systems, disk operating systems, real-time operating systems, multiprocessor operating systems.

CE 3104	Software Engineering	3 (2-3-6)
Prerequisite:	CE 2102 Data Structures and Algorithms	
Software design techniques; problem definition; function design; modular program; program design; hierarchy input and output process; detailed design; decision tables; pseudo code; debugging test data; software reliability; software maintenance; design and development of large scale software.		
CE 3106	Programming Languages	3 (3-0-6)
Prerequisite:	CE 2102 Data Structures and Algorithms	
Definition of language including specification of syntax and semantics; programming techniques of selected modern languages; language structures; data types; run-time environment.		
CE 3109	Database Management Systems	3 (3-0-6)
Prerequisite:	CE 2102 Data Structures and Algorithms	
Models and theories of database design: hierarchical, network, and relational/nonrelational models; data description languages and relational query languages; query facilities, data integrity and file security; related database technologies such as XML, JSON, and NoSQL databases.		
CE 3111	Design and Analysis of Algorithms	3 (3-0-6)
Prerequisite:	CE 2102 Data Structures and Algorithms	
Problem solving processes and data structures review; design and analysis of algorithms such as correctness, amount of work done, best-case, average and worst-case analysis, space usage, simplicity, and optimality; algorithm design techniques; sorting and searching techniques; randomized algorithm.		
CE 3222	Computer Networks	3 (3-0-6)
Introduction to data communications and computer networks; layered network architecture; point-to-point protocols and links; delay models in data networks; medium-access control protocols; flow control; error control; local area network; switching network; routing in data networks; TCP/IP protocol and the Internet; network security; cloud network, architecture, and system; standardization.		
CE 3901	Digital Audio/Video Coding Technique	3 (3-0-6)
Basic techniques of audio/video encoding, standardization, compression techniques, and multimedia technology.		
CE 4108	Operations Research	3 (3-0-6)
Prerequisite:	G 2207 Engineering Mathematics	
Scientific methods of operations research; linear programming; dynamic programming; game theory; queuing theory; simulation; applications of these techniques to industrial operations.		
CE 4109	Information Systems Analysis and Design	3 (3-0-6)
Prerequisite:	CE 2102 Data Structures and Algorithms	
Data and information; data processing system; information system design; data storage and data classification; error detection; file and form design, sequential, indexed, VSAM, ISAM.		

CE 4114	Data Mining	3 (3-0-6)
Prerequisite:	CE 3109 Database Management Systems	
Fundamental concepts of data mining; data mining methodologies; classification; association rules; clustering.		
CE 4201	Image Processing and Computer Vision	3 (3-0-6)
Prerequisite:	BG 1221 Computer Programming or Equivalent	
Introduction to digital image processing including such topics as digital image representation, analysis of images represented in different formats, edge detection, image segmentation, object recognition, motion analysis.		
CE 4207	System and Network Programming	3 (3-0-6)
Prerequisite:	CE 2102 Data Structures and Algorithms	
General introduction to UNIX operating system, UNIX file system, the use of UNIX system calls, programming on UNIX including network programming, UNIX system maintenance and monitoring.		
CE 4221	Network Applications and Technology	3 (3-0-6)
Prerequisite:	CE 2102 Data Structures and Algorithms	
Internet/Intranet technologies; web technologies; protocols and applications: HTML, JavaScript, modern scripting languages; web Services; REST, XML, JSON; relational and non relational databases; emerging Internet's applications and technologies.		
CE 4223	Advanced Computer Networks	3 (3-0-6)
Prerequisite:	CE 3222 Computer Networks or CE 4228 Data Communications and Networking	
Hardware and software organization for computer communication networks, using the 7-layer Open System Interconnection Reference Model and IP protocol suite as a basis for study, typical designs for computer network protocols from the hardware through the communications software and application software levels, using LAN, TCP/IP and OSI protocols as examples including internetworking concept and technology.		
CE 4224	Telecommunication Network Laboratory	1 (0-3-2)
Prerequisite:	Completion of 60 credits	
Internetworking, setup and test of LAN network (Ethernet), Network Operating System, network security, network management system, setup and operation of Internet-based applications.		
CE 4225	Computer and Network Security	3 (3-0-6)
Prerequisite:	CE 3222 Computer Networks or CE 4228 Data Communications and Networking	
Security techniques for both computer network and application including database system; cryptography technique; concept, scheme, secret key; public key, Hash algorithm, authentication, and digital signature; Firewalls World Wide Web security, and Internet security protocol.		
CE 4226	Network Systems Analysis and Design	3 (3-0-6)
Prerequisite:	CE 3222 Computer Networks or CE 4228 Data Communications and Networking	
Analysis and design of networks; methods to analyze the existing networks, redesign the		

existing network or design and evaluate the network; queuing theory, traffic analysis, security, reliability, availability and flexibility.

CE 4227 Mobile and Wireless Networks 3 (3-0-6)

Prerequisite: CE 3222 Computer Networks or
CE 4228 Data Communications and Networking

Wireless communication system; theory, principle of mobile communication system; characteristic and impact of radio propagation; modulation techniques; speech coding; diversity channel coding; multiplexing technique; interconnection components for mobile communication system; standards of current mobile communication, 3G, 4G, 5G and beyond; cellular systems: multiple access and interference management, capacity of wireless channels, multiuser capacity; MIMO system; wireless data networks with an emphasis on protocols above the physical layer.

CE 4229 Introduction to Cloud Computing 3 (3-0-6)

Prerequisite: CE 3222 Computer Networks or
CE 4228 Data Communications and Networking

Concepts of Cloud Computing: terminology, principles, and applications; technological aspects of distributed systems and databases; virtualization; data parallelism; performance analysis; cloud services; networking; and security.

CE 4301 Fundamentals of Internet of Things 3 (3-0-6)

Prerequisite: CE 4221 Network Applications and Technologies
EE 3705 Microprocessors and Microcontrollers

Introduction to the Internet of Things (IoT); microcontroller or microprocessor based systems; key components of IoT and networking; fullstack software development; IoT design considerations and constraints; interfacing between devices and physical world.

CE 4303 Introduction to Big-Data 3 (3-0-6)

Prerequisite: CE 3109 Database Management Systems

Big data analysis, tools, and techniques; Management of structured and unstructured data; Processing and Querying large data sets.

CE 4304 Programming for Data Analytics 3 (3-0-6)

Prerequisite: BG1221 Computer Programming
BG 2212 Applied Statistics

Fundamentals of programming for data analytics and management of data with modern programming languages and tools; the use of related libraries or tools for data collection; data visualization; data analytics

CE 4310 Introduction to Financial Technology 3 (3-0-6)

Prerequisite: CE 3222 Computer Networks or Equivalent

Introduction to financial technology such as digital payment, blockchain, cryptocurrencies, alternative lending, and smart contract including regulation and data security.

CE 4715 Artificial Intelligence I 3 (3-0-6)

Prerequisite: CE 2102 Data Structures and Algorithms

Intelligent Agents; Problem solving by searching, DFS, BFS, A* search, Greedy search; proposition logic, first order logic, forward chaining backward chaining, basic probability and Bayesian logic, Fuzzy logic, Decision networks, learning: Supervised learning, theory of

learning, neural networks; support vector machines; machine language translation, visual perception.

CE 4716 Artificial Intelligence II 3 (3-0-6)

Prerequisite: CE 2102 Data Structures and Algorithms

Fundamentals of machine learning, supervised learning, unsupervised learning, reinforcement Learning, neural network, deep learning; computer vision, object detection; modern techniques in artificial intelligence and machine learning, modern programming languages and tools for artificial intelligence and machine learning, applications of artificial intelligence and machine learning such as in cyber-physical systems; digital twins, metaverses; robots, autonomous vehicles; healthcare.

CE 4801 Computer Graphics Programming 3 (3-0-6)

Principles of computer graphics, graphics systems and models, graphics programming, graphic devices and their controls, color model, geometric objects and transformations, viewing, shading, clipping, and hidden-surface removal

CE 4802 Fundamentals of Virtual Reality 3 (3-0-6)

Prerequisite: CE 2102 Data Structures and Algorithms

Introduction to virtual reality, output/input devices, virtual reality APIs, 3D interaction techniques, modeling and simulation, experimental design and user studies, effects of system fidelity, augmented reality, real-world applications of virtual reality.

CE 4803 Fundamentals of Game Development 3 (3-0-6)

Prerequisite: CE 2102 Data Structures and Algorithms

Principles of 2D and 3D graphics, animation, sound, collision detection, game flow, game state, game engine, game programming and tools for game development.

CE 4804 Introduction to GPU Computing 3 (3-0-6)

Prerequisite: CE 2102 Data Structures and Algorithms

Principles of Graphics Processing Unit (GPU), GPU programming, parallel computing, and applications of GPU computing.

CE 4810 Advanced Topics in Game Development 3 (3-0-6)

Topic of current interest and new developments on game development.

CE 4811 Special Problems in Game Development 3 (3-0-6)

Investigation of special problems assigned by the instructor with the consent of the Faculty; a written report is required.

CE 4901 Computer Engineering Project I 1 (0-3-2)

Prerequisite: Completion of 100 credits

Study and development of project in Computer and Network Engineering. Students must submit reports at the end of the semester.

CE 4902 Computer Engineering Project II 2 (0-6-3)

Prerequisite: CE 4901 Computer Engineering Project I

Continuation of project done in Computer Engineering Project I. Report is also required at the end of the semester.

CE 4903	Advanced Topics in Computer Engineering	3 (3-0-6)
Prerequisite:	Completion of 90 credits with the consent of the Chairperson	
Topic of current interest and new developments on computer engineering.		
CE 4904	Special Problems in Computer Engineering	3 (3-0-6)
Prerequisite:	Completion of 90 credits with the consent of the Chairperson	
Investigation of special problems assigned by the instructor with the consent of the Faculty; a written report is required.		
CE 4907	Computer Engineering Industrial Training	3 (0-9-6)
Prerequisite:	Consent of the Chairperson	
Engineering practice related to computer engineering in private sectors or government agencies. Students need to submit reports regarding their duty assigned to the responsible faculty.		
CIB 2433	Oral Comprehension and Expression in Chinese I	3 (3-0-6)
Prerequisite:	CN 1401 Chinese I	
Listening to topics of general interests and Chinese oral summary practice on the selected topics.		
CIB 2434	Oral Comprehension and Expression in Chinese II	3 (3-0-6)
Prerequisite:	CIB 2433 Oral Comprehension and Expression in Chinese I	
Listening to conversations and texts related to Chinese culture and current situations and practice of recounting stories and events from the selected topics and actual experience.		
CIB 3438	Chinese from Social and Entertainment Media	3 (3-0-6)
Prerequisite:	CN 2402 Chinese III	
Practice of listening, recounting, analytical, and discussion skills on topics from entertainment media.		
CIB 3439	Chinese from Digital Media	3 (3-0-6)
Prerequisite:	CN 2402 Chinese III	
Practice of Chinese reading and writing skills on topics from digital media.		
CIB 3486	Chinese for Airline Services	3 (3-0-6)
Prerequisite:	CN 2402 Chinese III	
Chinese communicative skills used in airline business, basic knowledge of the aviation industry and airline works, and specific terminology for airline business.		
CIB 4437	Chinese Negotiation for Entrepreneurs	3 (3-0-6)
Prerequisite :	CN 2402 Chinese III	
Practice of conversations for business purposes and negotiation to become skilled entrepreneurs in business start-ups.		
CIB 4445	Reading Chinese Media	3 (3-0-6)
Prerequisite:	CN 3403 Chinese IV	
Chinese reading skills and understanding of expressions and styles used in written Chinese.		
CIB 4446	Chinese for Digital Media	3 (3-0-6)
Prerequisite:	CN 2402 Chinese III	
Enhancement of Chinese listening, speaking, reading, and writing skills focusing on terms		

and phrases used in Chinese digital media.

CIB 4488	Chinese for Business in Digital Age II	3 (3-0-6)
Prerequisite:	IBC 3487 Chinese for Business in Digital Age I	
Enhancement of Chinese proficiency skills for business purposes in the digital age and practice of presenting information, ideas, and arguments concisely and systematically.		
CN 0400	Chinese for Beginners I	3 (3-0-6)
Chinese sound system and pronunciation, focusing on Pinyin (Chinese Romanization system), basic Chinese characters and simple conversation.		
CN 0401	Chinese for Beginners II	3 (3-0-6)
Prerequisite:	CN 0400 Chinese for Beginners I	
Basic vocabulary and sentence patterns to develop the listening and speaking skills in daily life.		
CN 1400	Introduction to Chinese	3 (3-0-6)
Mandarin sound system, pronunciation, writing of Chinese characters, fundamental Chinese grammar and everyday sentence patterns.		
CN 1401	Chinese I	3 (3-0-6)
Prerequisite:	CN 1400 Introduction to Chinese	
Basic conversations and texts concerning everyday life to broaden basic vocabulary and Chinese grammar.		
CN 1430	Listening and Speaking in Chinese I	1 (1-0-2)
Practice of listening and speaking simple sentences and daily-life conversations with emphasis on correct pronunciation.		
CN 1431	Listening and Speaking in Chinese II	1 (1-0-2)
Prerequisite:	CN 1430 Listening and Speaking in Chinese I	
Practice of listening and speaking conversations in everyday situation focusing on fluency.		
CN 2401	Chinese II	3 (3-0-6)
Prerequisite:	CN 1401 Chinese I	
Conversations and texts in the intermediate level to expand vocabulary and grammatical structures.		
CN 2402	Chinese III	3 (3-0-6)
Prerequisite:	CN 2401 Chinese II	
Reading texts on Chinese life and culture focusing on advanced grammatical points and oral expressions.		
CN 2431	Chinese Oral Comprehension and Expression I	2 (2-0-4)
Prerequisite:	CN 1431 Listening and Speaking in Chinese II	
Listening to topics related to general interests and oral practice of summary on the selected topics.		

CN 2432	Chinese Oral Comprehension and Expression II	2 (2-0-4)
Prerequisite:	CN 2431 Chinese Oral Comprehension and Expression I	
Listening to conversations and texts related to Chinese culture and current situations and practice of recounting events and stories from the selected topics and actual experience.		
CN 3403	Chinese IV	3 (3-0-6)
Prerequisite:	CN 2402 Chinese III	
Reading of academic texts, practice of writing a short paragraph, and introduction to literary Chinese: vocabulary, expressions, sentence structures, and idiomatic usage.		
CN 3420	Integrated Chinese Skills	3 (3-0-6)
Prerequisite:	CN 3403 Chinese IV	
Enhancement of four Chinese language skills in daily and business application.		
CN 3433	Chinese from Audio-Visual Media	3 (3-0-6)
Prerequisite:	CN 3436 Chinese Business Conversation I	
Modern Chinese ways of life from audio-visual aids, and practice of recounting, analytical and discussion skills.		
CN 3436	Chinese Business Conversation I	3 (3-0-6)
Prerequisite:	CN 2432 Chinese Oral Comprehension and Expression II	
Practice of conversations on topics related to business context.		
CN 3437	Chinese Business Conversation II	3 (3-0-6)
Prerequisite:	CN 3436 Chinese Business Conversation I	
Further practice of conversations on business topics and development of fluency and accuracy of the speech.		
CN 3441	Chinese Reading and Oral Report	3 (3-0-6)
Prerequisite:	ECD 3911 Progressive Chinese for Communication	
Development of reading skills of texts related to current social, economic situations and practice of gathering information and presenting oral reports.		
CN 3450	Introduction to Chinese Writing	3 (3-0-6)
Prerequisite:	CN 2402 Chinese III	
	ECD 3911 Progressive Chinese for Communication	
Practice of writing different kinds of sentences including simple, compound and complex sentences, book reports, summaries, diaries, letters and essays in the given topic.		
CN 3451	Communicative Writing in Chinese	3 (3-0-6)
Prerequisite:	CN 3450 Introduction to Chinese Writing	
Practice of writing descriptions, passages, notes, announcements, invitation, agenda, minutes, product description, product instructions and advertisement.		
CN 3463	Introduction to Chinese Culture	3 (3-0-6)
Prerequisite:	CN 3403 Chinese IV	
Development of Chinese culture from the Xia dynasty to the modern era focusing on significant historical events, ways of life and main accomplishments in the science, arts and literature and specific features of Chinese influence on the world.		

CN 3470	Translation I: Chinese-Thai	3 (3-0-6)
Prerequisite:	CN 2402 Chinese III	
Methods and techniques of translation from Chinese to Thai and practice of translation of sentences, paragraphs, articles and texts.		
CN 3481	Chinese for Tourism	3 (3-0-6)
Prerequisite:	ECD 3911 Progressive Chinese for Communication	
General knowledge and Chinese terminology in tourism industry, description of Thailand's tourist attractions in Chinese, duties and responsibilities of tour guides and practice of Chinese oral communication as a tour guide.		
CN 3483	Chinese for Service Industries	3 (3-0-6)
Prerequisite:	ECD 3911 Progressive Chinese for Communication	
Vocabulary, expressions, and conversations used in service industries: airlines, hospitals, restaurants, banks, and Immigration.		
CN 3484	Chinese for Office Management	3 (3-0-6)
Prerequisite:	ECD 3911 Progressive Chinese for Communication	
Knowledge and skills for office management in Chinese, work etiquettes, practice of spoken Chinese in office and writing messages, work schedules, memoranda, agenda and minutes.		
CN 3485	Chinese for Hotel Services	3 (3-0-6)
Prerequisite:	ECD 3911 Progressive Chinese for Communication	
General knowledge and Chinese terminology in hotel industry, duties and responsibilities of personnel in hotel industry and practice of Chinese communication in hotel industry context.		
CN 3487	Chinese for Business in Digital Age I	3 (3-0-6)
Prerequisite :	CN 2402 Chinese III	
Development of Chinese proficiency related to business in the digital age, reading, writing summaries and reviews.		
CN 4433	Public Speaking in Chinese	3 (3-0-6)
Prerequisite:	CN 3437 Chinese Business Conversation II	
Basic principles and practice of public speaking for persuasive purposes, selection and evaluation of materials for speech, thought organization, voice and non-verbal communicative means.		
CN 4436	Advanced Business Conversation in Chinese	3 (3-0-6)
Prerequisite:	CN 3437 Chinese Business Conversation II	
Practice of conversations for business purposes and oral practice of presenting the information, idea and argumentation concisely and systematically.		
CN 4440	Reading in Business Chinese	3 (3-0-6)
Prerequisite:	CN 3403 Chinese IV	
Development of reading proficiency in business-related materials, writing summaries and reviews.		

CN 4442	Reading in Chinese Newspapers	3 (3-0-6)
Prerequisite:	CN 3403 Chinese IV	
Chinese newspaper reading skills and understanding of expressions and styles used in news writing.		
CN 4452	Business Writing in Chinese	3 (3-0-6)
Prerequisite:	CN3451 Communicative Writing in Chinese	
Technical terms and formats in business writings, various forms of correspondences and business correspondences including resumes and applications.		
CN 4453	Business Writing in Chinese	3 (3-0-6)
Prerequisite :	CN3451 Communicative Writing in Chinese	
Technical terms and formats in business writings, various forms of correspondences and business correspondences including resumes and applications.		
CN 4460	Survey of Chinese Literature	3 (3-0-6)
Prerequisite:	CN 3403 Chinese IV	
Overall development of Chinese literature from the beginning to the present day, and reading selections in prose, poetry, fiction and drama.		
CN 4471	Translation II: Thai-Chinese	3 (3-0-6)
Prerequisite:	CN 3470 Translation I: Chinese-Thai	
Methods and techniques of translation from Thai to Chinese and practice of translation of sentences, paragraphs, articles and texts.		
CN 4471	Translation II: Thai-Chinese	3 (3-0-6)
Prerequisite :	CN 3470 Translation I: Chinese-Thai	
Methods and techniques of translation from Thai to Chinese and practice of translation of sentences, paragraphs, articles and various writing.		
CN 4491	Seminar on Selected Topics	3 (3-0-6)
Prerequisite:	Consent of Instructor	
Discussion of selected topics in using Chinese or business Chinese and current issues of interest.		
CN 4493	Business Chinese Internship	3 (0-9-3)
Prerequisite:	Completion of at least 105 credits and approval from the Department	
Opportunity to practice of Chinese and application of business knowledge in the real business settings, either private or public organizations under the direct supervision of a designated supervisor and Faculty members.		
CSX 2001	Introduction to Information Technology	3 (3-0-6)
Components of IT systems, its' usage and applications, computer hardware and software and its' operations, communication systems and computer networks basic, applications of current technology, emerging IT-related technologies.		
CSX 2003	Principles of Statistics	3 (3-0-6)
Basic probability theory, random variables, sampling distributions, statistical inference for one population and two populations, Analysis of Variance, and analysis of categorical data.		

- CSX 2006 Mathematics and Statistic for Data Science 3 (3-0-6)
 Linear algebra such as vector spaces in n-space, inner product, norm and distance, orthogonal vector, vector product, Orthogonal functions and Fourier series, including various techniques in multivariate data analysis such as multiple regression analysis, discriminant analysis, logistic regression analysis, principal component analysis, factor analysis, and cluster analysis.
- CSX 2008 Mathematics Foundation for Computer Science 3 (3-0-6)
 Discrete mathematics as the basis of computer science, set theory, relation and function, recursive functions, logic and logical proving, mathematical reasoning, graph theory, tree, algebraic structure, probability, model of computation and automata.
- CSX 2009 Cloud Computing 3 (3-0-6)
 Cloud computing concepts and capabilities, cloud service models; IaaS, PaaS and SaaS, cloud containers, virtualization technologies, infrastructure migration approaches, cloud security and protection mechanisms, cloud resource management and monitoring capabilities, current trends and research in cloud computing.
- CSX 3001 Fundamentals of Computer Programming 3 (3-0-6)
 History of computer, components of a computer system, coding and numbering systems, algorithm and development process of algorithms and expression of algorithms in terms of flowchart and pseudo code, implementation of algorithms using one of the high level languages that are used widely in the industry with emphasis on the nature and structure of the language, techniques of programming for both numerical and non-numerical processing, structure of the programming languages and how to develop structured programming.
- CSX 3002 Object-Oriented Concepts and Programming 3 (3-0-6)
 Prerequisite: CSX 3001 Fundamentals of Computer Programming
 Different software development methods emphasizing on object-oriented methods, fundamental concepts of object oriented programming, inheritance, polymorphism, encapsulation, object oriented programming tools, class libraries, application development using object oriented concept, analysis and design of object-oriented data architecture.
- CSX 3003 Data Structures and Algorithms 3 (3-0-6)
 Prerequisite: CSX 3002 Object-Oriented Concepts and Programming
 Analysis of complexity of algorithms, various data structures including array, string, stack, queue, dequeue, tree, graph, set and heap, applications and analysis of algorithms developed employing the data structures mentioned above including time and memory requirement analysis of various searching and sorting algorithms.
- CSX 3004 Programming Languages 3 (3-0-6)
 Prerequisite: CSX 3002 Object-Oriented Concepts and Programming
 Computer programming languages on comparative basis with special consideration on syntax, semantics, and implementation, emphasizing on suitability of programming languages for various data manipulations and situations: exception handling, subroutines, visibility rules, concurrency and memory management.

- CSX 3005 Computer Networks 3 (3-0-6)
 Fundamentals of computer networks, network devices and services, role of protocol layers, protocol basics and network protocols, inter-operability issues, Open System Interconnection (OSI) reference model and TCP/IP, addressing and naming schemes, network types and topologies, wired and wireless networks, network media, Local Area Network (LAN) and Wide Area Network (WAN) technologies, network security basics.
- CSX 3006 Database Systems 3 (3-0-6)
 Prerequisite: CSX 3001 Fundamentals of Computer Programming
 Database systems and database management, types of database systems emphasizing on relational database, functional dependency, normalization, query optimization, integrity and security of database systems, and concurrency control.
- CSX 3007 Computer Architecture 3 (3-0-6)
 Computer system components, combinatory circuits, sequential circuits, micro-operations using flip-flop, registers, adder and counter, computational operations and control of micro-operations, design of memory unit, design of set of instructions, design of parallel processing as well as SISD, SIMD, MISD, and MIMD architectures.
- CSX 3008 Operating Systems 3 (3-0-6)
 Components and functions of operating systems, uniprogramming, multi-programming, multitasking, multithreading, resource management functions of operating systems, process scheduling algorithms, device management algorithms, virtual memory management, and
 classical problems related to operating systems such as deadlock, starvation, and concurrency.
- CSX 3009 Algorithm Design 3 (3-0-6)
 Prerequisite: CSX 3003 Data Structures and Algorithms
 Techniques for designing algorithms using divide and conquer, greedy method, dynamic programming and backtracking by emphasizing on analysis of efficiency, design techniques for NP problem domain.
- CSX 3010 Senior Project I 3 (0-9-0)
 Prerequisite: Third-year student status with at least 72 credits completed
 Specific project which requires students to design and develop a concrete program or system, analyze the problem, define the solution and design the system by applying the various computer science concepts. The advisor whom the students select will guide them throughout the project development. The students must give presentation which includes oral examination.
- CSX 3011 Senior Project II 3 (0-9-0)
 Prerequisite: Fourth-year student status with at least 100 credits completed
 System development project from the industry, students have to work with the companies under the supervision of their advisor throughout the project. The students must give presentation which includes oral examination.
- CSX 4107 Web Application Development 3 (3-0-6)
 Prerequisite: CSX 3002 Object-Oriented Concepts and Programming
 Web application design and development, model view controller (MVC) framework,

Hypertext Markup Language (HTML), Dynamic HTML (DHTML), scripting languages (such as VB Script, Jscript), knowledge and skills required to develop web application using n-tiers architecture, designing, building, and deploying web application.

CSX 4108 iOS Application Development 3 (3-0-6)

Prerequisite: CSX 3002 Object-Oriented Concepts and Programming

Introduction to software development for hand-held devices, iOS application development for ubiquitous devices such as iPhone and iPad, developing iOS applications using Xcode with Swift programming language, emphasizing of hands-on project works, and development of small-scale applications.

CSX 4109 Android Application Development 3(3-0-6)

Prerequisite: CSX 3002 Object-Oriented Concepts and Programming

Introduction to Android application development for ubiquitous devices such as phones and tablets, developing Android application on Android Studio with Kotlin programming language, emphasizing of hands-on project works, and development of small-scale applications.

CSX 4110 Backend Application Development 3 (3-0-6)

Prerequisite: CSX 3002 Object-Oriented Concepts and Programming

Foundational skills of back-end application development, developing applications using the modern server-side programming languages and frameworks, back-end application. Development process including connecting databases, testing, building, and using of APIs such as RESTful, and implementing security features to the applications.

CSX 4180-4199 Selected Topic [in Software Engineering] 3(3-0-6)

Prerequisite: Junior or senior students with the consent of the instructors

Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements and is in accordance with the current changes in software engineering and development in that period.

CSX 4201 Artificial Intelligence Concepts 3 (3-0-6)

Prerequisite: CSX 3001 Fundamentals of Computer Programming

Fundamental concepts in AI and its purpose as well as different disciplines in the field, mathematical theorem proving, natural language processing, image processing, robotics, expert system and various techniques used in knowledge representation, searching, induction and heuristic algorithms, foundations of intelligent systems, intelligent agents, intelligent application development, use of popular programming languages such as Python, Prolog and LISP to solve AI related problems.

CSX 4202 Data Mining 3 (3-0-6)

Prerequisites: CSX 3001 Fundamentals of Computer Programming
ITX 2007 Data Science

Fundamental concepts of data mining, widely used techniques/algorithms and tools, pre-processing, exploratory data analysis, classification, clustering, association analysis and region discovery.

CSX 4203	Machine Learning	3 (3-0-6)
Prerequisites:	CSX 3001 Fundamentals of Computer Programming ITX 2007 Data Science	
Construction of computer programs that will automatically improve their performance through experience, primary approaches to machine learning, including inductive inference of decision trees, case-based learning, neural network learning, statistical learning methods, and Bayesian learning.		
CSX 4205	Big Data Analytics	3 (3-0-6)
Prerequisites:	CSX 3001 Fundamentals of Computer Programming ITX 2007 Data Science	
Foundational techniques and tools required for big data analytics, deployment of structured approach to big data analytics projects, visualization techniques and tools to analyze big data and create statistical models, usage of tools such as Hadoop, MapReduce, Spark, and Graph.		
CSX 4206	Data Warehousing and Business Intelligence	3 (3-0-6)
Prerequisite:	CSX 3006 Database Systems	
Fundamental and evolution of data warehouse concepts including data warehouse architecture, development methodology, data modelling, data conversion, OLAP, ETL processes, data access, business intelligence applications.		
CSX 4207	Decision Support and Recommender Systems	3 (3-0-6)
Prerequisites:	CSX 3001 Fundamentals of Computer Programming ITX 2007 Data Science	
Recommender systems concepts, classical techniques for building recommender systems such as collaborative based, content-based, knowledge-based and hybrid recommendation approaches, techniques and approaches used to evaluate the quality of the recommendations, guidelines on matching recommendation technologies and domains, recent developments and applications of recommender systems.		
CSX 4208	Deep Learning	3 (3-0-6)
Prerequisites:	CSX 3001 Fundamentals of Computer Programming ITX 2007 Data Science	
Introduction to deep learning concepts and techniques including perceptron, artificial neural networks, activation function, learning techniques, back propagation, problem of traditional neural network; vanishing/exploding gradient, regularization, pre-processing, deep feed forward networks, convolutional networks, recurrent neural networks, and their applications.		
CSX 4210	Natural Language Processing and Social Interactions	3 (3-0-6)
Prerequisites:	CSX 3001 Fundamentals of Computer Programming ITX 2007 Data Science	
Human language from a computational perspective, syntactic analysis, semantic interpretation, and discourse processing (both symbolic and statistical approaches), information extraction, natural language generation, and applications of NLP in social interactions.		

CSX 4211	Data Engineering	3 (3-0-6)
Prerequisite:	CSX 3006 Database Systems OR ITX 3006 Database Management Systems	
Data ecosystem, data engineering lifecycle, types of databases, data processing, data processing scheduling, Extract-Transform and Load (ETL) process, data warehouse and data lake, cloud technologies and platforms in data engineering, data engineering toolbox.		
CSX 4212	Data Analytics	3 (3-0-6)
Prerequisites:	CSX 3001 Fundamentals of Computer Programming ITX 2007 Data Science	
Fundamental of big data, data pre-processing, analytics algorithms, descriptive analytics, diagnostic analytics, predictive analytics, prescriptive analytics, case studies on data analysis, design theory and study of communication, visualization tools and techniques, big data business use cases, and business intelligence tool and report.		
CSX 4213	Computer Vision	3 (3-0-6)
Prerequisites:	CSX 3001 Fundamentals of Computer Programming ITX 2007 Data Science	
Fundamental problems and techniques in computer vision: image formation, camera image geometry, feature detection in images, edge/line detection, recovery of shape from images, forming image mosaics; video surveillance techniques; recognizing, classifying and tracking objects in images.		
CSX 4280-4299	Selected Topic [in Data Science]	3 (3-0-6)
Prerequisite:	Junior or senior students with the consent of the instructors	
Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements and is in accordance with the current changes in Informatics and data science in that period.		
CSX 4306	Internet of Things	3 (3-0-6)
Prerequisite:	CSX 3005 Computer Networks	
Introduction to Internet, Internet of Things, technological trends leading toward IoT, embedded system and its interface, common hardware components of IoT devices, IoT devices' software and hardware interaction, IoT protocols, IoT and cloud service/computing.		
CSX 4407	Enterprise Application Development	3 (3-0-6)
Prerequisite:	CSX 3006 Database Systems or ITX 3006 Database Management Systems	
High-level overview of enterprise application architecture; analyzing, designing, and developing enterprise application on selected architecture and platform; use of DevOps tool chain to develop, test, integrate, and deploy enterprise software; designing and developing interoperability among applications.		
CSX 4501	Theory of Computation	3 (3-0-6)
Prerequisite:	CSX 2008 Mathematics Foundation for Computer Science	
Methods of computation, sequential computation, parallel computation, logic circuits, finite-state machine, deterministic and non-deterministic machine, regular and non-regular set, context-free grammars, push-down automata, Turing machine, computability and non-computability, halting problem, examples of class P and class NP problems, theories and		

CSX 4510	Neural Networks	3 (3-0-6)
Prerequisites:	CSX 3001 Fundamentals of Computer Programming ITX 2007 Data Science	

CSX 4513	AR/VR Application Development	3 (3-0-6)
Prerequisite:	CSX 3002 Object-Oriented Concepts and Programming	

CSX 4514	Cross-platform Application Development	3 (3-0-6)
Prerequisite:	CSX 3002 Object-Oriented Concepts and Programming	

CSX 4515	Game Design and Development	3 (3-0-6)
Prerequisite:	CSX 3002 Object-Oriented Concepts and Programming	

CSX 4516	Reusability and Design Patterns	3 (3-0-6)
Prerequisite:	CSX 3002 Object-Oriented Concepts and Programming	

CSX 4600-4699	Selected Topics	3 (3-0-6)
Prerequisite:	Junior or senior students with the consent of the instructors	

DDI 1111	Entrepreneurial Inspiration	1 (1-0-2)

Process of being mentally stimulated to be an entrepreneur including self-discovering, goal setting, opportunity identification, self-preparation and development, life-long learning, and acknowledgement of the social value of their businesses.

- DDI 1112 Digital Mindset and Sustainability 2 (2-0-4)
 Training of attitudes and behaviors to foresee the impact of digital disruptions and also build new culture that enables people in organization to create new business possibilities and learn how to sustain business through digital mindset and innovation.
- DDI 1113 Data and Digital Literacy 2 (2-0-4)
 Essential skills needed to navigate and interpret data in the digital age, focusing on data literacy, critical thinking, and the responsible use of digital tools to analyze, evaluate, and communicate information effectively.
- DDI 1114 Business Innovation and Design Thinking 2 (2-0-4)
 Systematic approach to business innovation and creative problem solving that can be used in developing new products, new services and new organizations of business. Design thinking tools are introduced to have self-development to become innovative thinker and to uncover business opportunities.
- DDI 1115 Digital Consumer Insights 2 (2-0-4)
 Coverage of a broad range of theories, concepts and apply digital tools to highlight the potential of qualitative research to uncover behavior and insights of consumers to build a base knowledge that can be used to create strategies and competitive advantage in the evolving digital marketing landscape.
- DDI 1121 Digital Marketing 2 (2-0-4)
 Fundamental concepts of digital marketing, including digital environment, cyber laws, ethical issues, challenges, trends, channels, tools, platforms, and digital strategy formulation to implement and enhance marketing performance of goods and services.
- DDI 1122 Consumer Research for Strategic Decision Making 2 (2-0-4)
 Advanced methods for gaining a deep understanding of consumer behavior through effective question formulation and research design. Students will learn qualitative and quantitative techniques, including in-depth interviews, focus groups, and advanced survey design. The course emphasizes the transformation of collected data into actionable insights using analysis and data visualization. Topics include thematic analysis and strategic decision-making frameworks. With these skills, students will be able to derive meaningful insights from consumer data and apply them to develop strategic business decisions and innovative solutions in the digital age.
- DDI 1123 Global Business and Commercialization 3 (3-0-6)
 Process of developing and introducing new products and brands for different culture markets, global product and brand strategies, brand valuation and impacts on building global brand image, global pricing strategies, international competition and negotiation on pricing, global marketing plan, market selection techniques and global positioning strategies.
- DDI 1211 Design Exploration 2 (2-0-4)
 Design Exploration is a foundational course which immerse students in the fundamental principles and practices of design. The course is primarily organized around three core modules; design comprehension and fundamentals, creative culture and trends, and design exploration and proposal. Through a series of lectures, assignments, critique and field-trip, student will grasp basic understanding of general design ideas and contemporary

trends/practices on design. Yet, gaining practical skill in design thinking and project execution.

DDI 1212 Photography and Cinematography 2 (2-0-4)
Basic photography and cinematography histories, fundamental concepts and techniques, usage of photographic equipment and materials, basic software and hardware used in post-production for digital photography and cinematography to create various types of communication.

DDI 1221 Graphic Communication and Presentation 2 (2-0-4)
Essential methods of presentation, emphasizing upon concepts, theories and skills of using various media and techniques, ranging from two-dimensional presentation to three-dimensional modeling for communicating ideas.

DDI 1222 Design Thinking for Creatives 2 (2-0-4)
Introduction to the various fundamental aspects of design processes and working methodologies through an investigation on subjects including; design-thinking steps/processes, contextual analysis, human-centred design, materiality, and principles of a good design. Simultaneously, developing design-related skillsets and a critical mindset through heuristic practices and design-related exercises.

DDI 1311 Tech Startups 3 (3-0-6)
Overview of tech startup, innovations, design thinking, ideation, persona, user interface design, UX/UI, lean startup, lean canvas, value propositions, UVP, agile manifesto, business modeling, entrepreneurship, marketing, pitching, growth hacking, angel investors, venture capital.

DDI 1312 UI/UX Design in Technology 2 (2-0-4)
Overview of user interface and user experience design in technology, including interactive systems, user capabilities, interface technology, design thinking process, user stories and scenarios, wireframes and storyboards, prototyping, interaction design, usability design and testing.

DDI 1321 Agile Methods 2 (2-0-4)
Agile concept and methodologies as applied in software engineering process and its significance in modern technology innovations. Students learn how agile is used to design and develop rapid prototypes and products that meet the changing needs of the customers.

DDI 1322 Application Design and Coding 2 (2-0-4)
A practical approach to application development and coding for beginners, focusing on the design and development of real-world software, using modern development methods and tools. Students learn about the architecture, the development process, and the actual hands-on implementation of web and mobile applications.

DDI 2130 Workshop I Non-Credit
Individual/group project on an area or a topic of interest.

DDI 2131 Leadership for a Digital Age 2 (2-0-4)
Training of leadership skills that empower people to lead others and create self-organized teams that optimize business operation in digital age.

- DDI 2132 Digital Media Analytics 3 (3-0-6)
Tools and techniques to analyze and interpret data from digital media platforms, covering metrics, KPIs, data visualization, sentiment analysis, and audience segmentation, with a focus on using insights to drive business decisions and optimize digital marketing strategies.
- DDI 2133 Global Strategy and Communication 2 (2-0-4)
An introductory course to the global business environment, provides a systematic understanding of globalization and its implication to businesses, the principles, practices and processes of conducting businesses in a globalized environment, introduces decision making tools and framework to formulate strategic decisions for businesses. Emphasizes on developing soft skills in making professional presentations and communication in a competitive multicultural global setting. The course is designed to be delivered in a blended format which involves a combination of in-class activities and online interactions.
- DDI 2134 Entrepreneurial Finance 2 (2-0-4)
Integrated set of theories and application of finance for entrepreneurs are emphasized. Finance issues for entrepreneurs related to capital raising, short-term and long-term financial plan, and financial management are included.
- DDI 2140 Workshop II Non-Credit
Prerequisite: DDI 2130 Workshop I
Implementation of the proposed individual/group project on an area or a topic of interest.
- DDI 2141 Business Networking 2 (2-0-4)
Fundamentals of business networking, focusing on how to build and maintain professional relationships, with a focus on networking etiquette, personal branding, leveraging social media, attending business events, and fostering long-term connections.
- DDI 2142 Brand-Driven Innovation 2 (2-0-4)
The integration of branding, design and innovation, bringing brand strategy to life through a value proposition and tangible customer experience for the sustainable growth. Emphasizing on brand building process, brand insights, brand touch points, customer journey mapping, brand archetype and brand identity, brand personality, brand communications and essential brand strategies to maximize brand equity through continuous innovation.
- DDI 2143 Entrepreneurial Accounting 2 (2-0-4)
Integrated set of theories and application of accounting for entrepreneurs are emphasized. Accounting issues for entrepreneurs related to fundamental accounting, cash flow and balance sheet management, and managerial accounting are included.
- DDI 2144 Economics for Entrepreneur 2 (2-0-4)
Integrated set of theories and application of economics for entrepreneurs are emphasized. Economic issues for entrepreneurs related to the cost-benefit analysis, opportunity cost, technology, gross domestic product, aggregate demand, and factors affecting macroeconomic environment are included.

DDI 2231	Design Studio I	2 (2-0-4)

A hands-on exploration into the principles and practices of design. This course aim to provide students with the chance to engage in the creative process, from conceptualization to execution, within a collaborative studio environment. Through a combination of lectures, hands-on workshops, and project-based learning, student will gain first-hand experience in essential design skills.

DDI 2241 Design Studio II 2 (2-0-4)

Design Studio II builds upon the fundamental skills acquired in Design Studio 1, challenging students to engage in more multifaceted and interdisciplinary projects. The course delves deeper into advanced design techniques, digital tools, and innovative design solutions. Students will work in individual and collaborative projects which require higher level of critical thinking, technical proficiency and creative problem-solving. The course emphasize the importance of technical feasibility and real-world applications, facilitating the students for their sandbox project or personal design-related endeavors.

DDI 2331	Practical Data Science for Entrepreneurs	2 (2-0-4)

Comprehensive problem-solving mindset, principles, techniques and tools to deal with various facets of data science practices in the business world of entrepreneurs. Topics include data preparation and visualization, exploration, description and prediction required for knowledge extraction in both science and business domains.

DDI 2332 AI for Business 2 (2-0-4)

Fundamental concepts of artificial intelligence and its applications in modern business operations, from sales & marketing to customer support operations. Students learn how AI can be applied to realworld business scenarios, AI tools and technologies in the market, and legal and social acceptance of AI technologies.

DDI 2341 Digital Transformation 2 (2-0-4)

Fundamental operations of businesses and industries, paradigms and management practices of digital-centric businesses, digital revolution, management disciplines for successful business transformation, digital technologies enabling development of new operational process, customer experience and business model, use of digital technologies for established organizations or new ventures.

DDI 3400-3499	Selected Topic in Multidisciplinary Skills	3 (3-0-6)

Contemporary concepts, approaches, applications and practices in multidisciplinary areas equipping students with knowledge to solve problems, fostering adaptability, and collaboration in diverse professional settings.

DEX 1112	Photography and Cinematography	2 (2-0-4)

Basic photography and cinematography histories, fundamental concepts and techniques, usage of photographic equipment and materials, basic software and hardware used in post-production for digital photography and cinematography to create various types of communication

DM 3200	Media Context Analysis in the Digital Age	3 (3-0-6)

Prerequisite: CA 2100 Persuasive Communication

An analysis of audience, media, and context including narrative, branded content, transculturalism, postmodernism, critical theory, and media effects to strategically plan and

manage communication for digital media.

DM 3201 Digital Content Resource Management 3 (2-2-5)

Prerequisite: CA 2120 Interactive and Digital Platform Design

An exploration of several methods of managing resources on a digital content production, including management of time, budget, production crew, online resources such as social media platform, and business requirements in order to operate online media channels as an entrepreneur.

DM 3202 Story Development in Digital Motion Picture 3 (2-2-5)

Prerequisite: AAD 2008 Photography

CA 3110 Storytelling for Creative Communication

Developing skills of visual storytelling through practices of story development and video content production, comprise refining idea and concept, character development, story structure, dialogue, digital motion picture language, production technique, cinematography, framing, camera movement, and digital editing to create a video content for digital platform.

DM 3203 Aesthetics of Narrative and Motion Design 3 (2-2-5)

Prerequisite: CA 2120 Interactive and Digital Platform Design

Mastering of digital narrative through motion graphic composed by principles of art direction and essential techniques, movement design, space and time, motion concept, 2D objects in 3D space, creative content which the outcome interpolate both aesthetic and meaning into the motion design for a video content or motion infographic.

DM 3260-64 Selected Topics in Digital Media Communication 3 (3-0-6)
Concepts

An exploration and study of selected topics in digital media communication concepts. The topic will be announced semester by semester.

DM 3270-74 Selected Topics in Digital Media Communication 3 (2-2-5)
Practices

An exploration and practice of selected topics in digital media communication practices. The topic will be announced semester by semester.

DM 3280 Digital Art in Data Visualization 3 (2-2-5)

The study, the understanding, and the realization in the field of digital art specialized in data visualization which explore the proficiency in data analysis, aesthetic design, traditional data to visual communication thus a path to decision-making by visual language.

DM 3281 Arts of Cinematography 3 (2-2-5)

Fundamentals of the technical and conceptual aspects of cinematography through short format filmmaking. Explore the tools and techniques, visual language of cinematography, directing, director of photography, storyboarding, role and responsibilities for each production crew, Hands-on experience with a professional cinematographer.

DM 3282 Live Streaming Media 3 (2-2-5)

Planning communication with online live streaming, including finding an ideal streaming platform and software, selecting the right presenter for the business, interacting with live online audiences, increasing engagement, and analyzing audience data in order to

maximize understanding how to incorporate live streaming as part of a business's media communication strategy.

DM 3283 Online Application Design 3 (2-2-5)
An overview and practice of interactive design workflows, an interactive prototype, website creation, and application design on a digital platform from the foundation.

DM 3284 Innovative Digital Technology and Business Applications 3 (2-2-5)
Focusing on trends and upcoming innovation and digital technology, creativity, roles, functions and implements the knowledge of the digital media for communication in various platforms.

DM 4200 Rhythm of Narration 3 (2-2-5)
Prerequisite: AAD 2008 Photography
CA 2120 Interactive and Digital Platform Design
An arrangement of narrative events, principles of editing, creative editing techniques, meaningful transitions, color correction, graphical element, story pacing, rhythm and music synchronization in video contents to maximize the power of digital storytelling with an emotional involvement of the target audience.

DM 4201 User Experience Design 3 (2-2-5)
Prerequisite: CA 1103 Computer Graphic Design
CA 2120 Interactive and Digital Platform Design
Understanding target audiences' behavior when interacting or consuming digital media from user research, user journey, information architecture, and testing out the hypotheses to design or select a digital platform for the best digital user experience.

DM 4202 Digital Media Communication Workshop 3 (2-2-5)
Prerequisite: DM 3201 Digital Content Resource Management DM 3202 Story Development in Digital Motion Picture DM 3203 Aesthetics of Narrative and Motion Design
ELE 2000 Academic English A workshop training in digital media communication under the supervision of the instructor.

ECD 1900 Chinese Intercultural Communication 3 (3-0-6)
(Only for native Chinese students, or students who have certificate of HSK level 5 with score of 200)
Chinese language for communication across different cultures in diverse context, with an emphasis on cross-cultural attitudes, practices and communication skills.

ECD 2902 Developing Comprehensive Chinese 3 (3-0-6)
Prerequisite: CN 2401 Chinese II
Higher level of grammar, vocabularies and expressions used in communication, including views and attitudes of intercultural communication, and practice of reading and writing skills.

ECD 2930 English Listening and Speaking in Digital Era 3 (3-0-6)
Prerequisite: ELE 1002 Communicative English II
Intermediate skills in listening and speaking in contexts related to both business and academic, practice in listening, speaking, and note-taking strategies, exposure to global English and authentic materials in digital era

ECD 3911	Progressive Chinese for Communication	3 (3-0-6)
Prerequisite:	ECD 2902 Developing Comprehensive Chinese	
Advanced grammatical points, further practice of reading and writing complicated texts and topics. Practice of translation from Chinese to English and from English to Chinese.		
ECD 3912	Communicative Chinese in Digital Media	3 (3-0-6)
Prerequisite:	ECD 3911 Progressive Chinese for Communication	
Enhancement of Chinese listening, speaking, reading and writing skills on the topics related to digital media contexts, focusing on terms and phrases commonly used in Chinese digital media		
ECD 3931	Media Storytelling	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Critical comprehension and analysis of various forms of digital media, discussion on visual representations, visual design production in digital communication and communication through storytelling.		
ECD 3932	Media Content Writing	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Advanced skills in digital content writing that involves writing, developing, editing, and publishing content and copy for a variety of platforms, including websites, blogs, videos, email marketing campaigns, social media posts, infographics, and more.		
ECD 4913	Trends in Chinese Digital Media	3 (3-0-6)
Prerequisite:	ECD 3912 Communicative Chinese in Digital Media	
Overview of trends and current issues in Chinese digital media. Analysis of various forms of Chinese digital media.		
ECD 4933	Art of Persuasion	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
The theory and practice of written and spoken persuasive communication in the digital age through task-based activities.		
ECD 4934	English/Chinese Internship	3 (3-0-6)
Prerequisite:	By consent of the instructor	
Practice English/Chinese communication skills in a real world setting and gain practical experience in digital field.		
ECD 4935	Trends in Communicative Digitalization	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Overview of current uses of Internet-based media, such as websites, YouTube and other forms of social media, in public relations. Critical comprehension of social trends and practices in digital technologies, as well as the influence of traditional and digital media.		
EE 1000	Basic Engineering Tools	3 (3-0-6)
Basic tools for engineering purposes such as simulation applications; designing and prototyping applications; soldering; measurement tools.		

EE 2201	Electric Circuits	3 (3-0-6)
Prerequisite:	BG 1205 Calculus II BG 1213 Physics II	
Circuit elements; node and mesh analysis; circuit theorems, resistance, inductance, capacitance; first and second order circuits; phasor diagram; AC power circuits; three-phase systems.		
EE 2202	Electric Circuits Laboratory	1 (0-3-2)
Prerequisite:	BG 1214 Physics Laboratory II	
Co-requisite:	EE 2201 Electric Circuits	
Laboratory works to be done according to EE 2201 Electric Circuits.		
EE 2410	Electrical Machine Systems	3 (3-0-6)
Prerequisite:	EE 2201 Electric Circuits	
Principles of electromechanical energy conversion, induced force and voltage; principles of single/three-phase transformer; equivalent circuit; phasor diagram and calculations; principles of simple DC/ AC machines; generators and motors with equivalent circuits and characteristics; principles and construction of synchronous generators and induction motors along with equivalent circuits; phasor diagrams and characteristics.		
EE 2411	Electrical Machine System Laboratory	1 (0-3-2)
Prerequisite or Co-requisite:	EE 2410 Electrical Machine Systems	
Laboratory works to be done according to EE 2410 Electrical Machine Systems.		
EE 2605	Engineering Electronics	3 (3-0-6)
Prerequisite:	BG 1213 Physics II	
Semiconductor devices; device current-voltage and frequency characteristics; analysis and design of diode circuits; analysis and design of BJT, MOS, CMOS, and BiCMOS transistor circuits; operational amplifier and its applications.		
EE 2606	Engineering Electronics Laboratory	1 (0-3-2)
Prerequisite or Co-requisite:	EE 2605 Engineering Electronics	
Laboratory works to be done according to EE 2605 Engineering Electronics.		
EE 3301	Electromagnetic Fields	3 (3-0-6)
Prerequisite:	BG 1205 Calculus II BG 1213 Physics II	
Electrostatic fields; conductors and dielectrics; capacitance; convection and conduction currents; resistance, magnetostatic fields; magnetic materials; inductance, time-varying electromagnetic fields; Maxwell's equations.		
EE 3310	Signals, Systems and Communications	3 (3-0-6)
Prerequisite:	EE 2201 Electric Circuits	
Continuous-time and discrete-time signal and system; signal analysis using Fourier transform, Laplace transform, and Z-transform; applications of signal and system; modern techniques in signal and system analysis; Communication models; wire/cable and wireless/radio; analog modulation: AM, DSB, SSB, FM, NB/WBFM, PM; noises in analog communication; binary baseband modulation; Nyquist's sampling theory and quantization: PAM, PCM, DM; multiplexing techniques; introduction to transmission lines; radio wave propagation; microwave components and communication; satellite communications; optical		

communication

EE 3405 Digital Control Systems 3 (3-0-6)

Prerequisite: EE 3406 Control Systems

Computer-based control; control theory; basic digital control scheme; principles of signal conversion; basic discrete-time signals; time-domain models for discrete-time systems; z-transform technique; stability on the z-plane; sampling as impulse modulation; sampled spectra and aliasing; filtering; principles of discretization; z-domain description of sampled continuous-time plants; implementation of digital controllers; z-plane specifications of control system design; digital compensator design using frequency response plots; and digital compensate or design using root locus plots

EE 3406 Control Systems 3 (3-0-6)

Prerequisite: EE 2201 Electric Circuits or
BG 2207 Engineering Mathematics

Mathematical models of systems; closed-loop and open-loop control system; transfer function, signal flow graphs; time-domain and frequency-domain analysis; design of control system; system stability: root locus, Nyquist plots, Bode plots.

EE 3601 Electronic Circuit Design 3 (3-0-6)

Prerequisite: EE 2605 Engineering Electronics

Components of design process of electronic circuits; multiple-input Operational Amplifiers circuit design; power supply design; voltage regulator circuit design; wave shaping circuit design, Bipolar Junction Transistor (BJT) amplifier design, Field-effect Transistor (FET) amplifier design; power amplifier design; digital logic families and their circuits design.

EE 3602 Electronic Circuit Design Laboratory 1 (0-3-2)

Prerequisite or Co-requisite: EE 3601 Electronic Circuit Design

Laboratory works to be done according to EE 3601 Electronic Circuit Design.

EE 3606 Electrical Instruments and Measurements 3 (3-0-6)

Prerequisite: EE 2201 Electric Circuits and
EE 2601 Electronic Devices and Circuits OR
EE 2605 Engineering Electronics

Units and standard of electrical measurement; instrument classification and characteristics; measurement analysis; measurement of dc and ac current and voltage using analog and digital instruments; power, power factor, energy measurement; the measurement of resistance, inductance, capacitance; frequency and period/time-interval measurement; noises; transducers; calibration

EE 3704 Embedded Systems 3 (3-0-6)

Prerequisite: EE 3705 Microprocessors and Microcontrollers

Architecture; features and instruction sets of microcontrollers and DSP processors; interfacing techniques; requirements of power applications; external memory; peripherals; timers; DAC and ADC; sampling and real time considerations; programming; data acquisition; introduction and development of micro-electro-mechanical systems (MEMS) technology

EE 3705	Microprocessors and Microcontrollers	3 (3-0-6)
Prerequisite:	CE 2704 Digital Logic Design	
Basic architecture of microprocessor and microcontroller; CPU, bus, memory, and I/O units, software for interfacing; interfacing peripherals; high-level language programming; Interrupt and memory management; the design of embedded systems using microcontroller and interfacing peripherals with external components; microprocessor applications in automatic control system : power control systems, inverter for solar cell systems, and electrical control for robotic systems.		
EE 4305	Digital Signal Processing	3 (3-0-6)
Prerequisite:	BG 2207 Engineering Mathematics	
Continuous-time and discrete-time signals, spectral analysis; decimation and interpolation; sampling rate conversion; DFT; probabilistic methods in DSP; design of FIR, IIR digital filters, multirate systems and filter Banks; Discrete Wavelet Transform; introduction to some DSP applications such as image processing, speech and audio processing, array processing and further current applications.		
EE 4401	Electric Drive	3 (3-0-6)
Prerequisite:	EE 2410 Electrical Machine Systems	
Development of electric drives; moment of electric drives; types of duties; electric braking, energy relation during starting and braking; calculation of motions of electric machines using analytical and graphical methods; calculations of motor ratings; important tracking machines; electric circuits and controls of traction machines; sample calculations; industrial applications of electric motors		
EE 4403	Basic Mechatronics	3 (3-0-6)
Prerequisite:	ME 2210 Engineering Mechanics OR ME 2211 Engineering Mechanics I OR EE 2410 Electrical Machines System	
Introduction to mechatronics with emphasis on PLC or industrial robots that used in automated manufacturing. Basic knowledge of Pneumatic and Hydraulic equipment will be overviewed.		
EE 4501	Power System Analysis	3 (3-0-6)
Prerequisite:	EE 2410 Electrical Machines System	
Electrical power system structure; AC power circuits; per unit system; generator characteristics and models; power transformer characteristics and models; transmission line parameters and models; cable parameters and models; fundamental of load flow; fundamental of fault calculation; symmetrical and unsymmetrical fault analysis.		
EE 4503	Electrical Systems Design	3 (3-0-6)
Prerequisite:	EE 2410 Electrical Machines System	
Basic design concepts, codes and standards, power distribution schemes, electrical wires and cables, raceways; electrical equipment and apparatus, load calculation, power factor improvement and capacitor bank circuit design, lighting and appliances circuit design, motor circuit design; load, feeder, and main schedule, emergency power system, short circuit calculation, grounding system for electrical installation.		
EE 4505	Power System Protection	3 (3-0-6)
Prerequisite:	EE 4501 Power System Analysis	
Fundamental of protection practices; instrument transformer and transducers; protection		

devices and protection systems; overcurrent and earth fault protection; differential protection; transmission line protection by distance relaying; transmission line protection by pilot relaying; motor protection; transformer protection; generator protection; bus zone protection; introduction to digital protection devices.

EE 4506 High Voltage Engineering 3 (3-0-6)

Prerequisite: EE 3301 Electromagnetic Fields

Uses of high voltage and overvoltage in power systems; generation of high voltage for testing; high voltage measurement techniques; electric field stress and insulation techniques, breakdown of gas; liquid and solid dielectric; high voltage testing techniques; lightning and protection; insulation coordination.

EE 4511 Renewable Energy 3 (3-0-6)

Pre-requisite: EE 2410 Electrical Machine Systems

Principles on clean combustion technologies; solar and wind energy; bio-(hydrogen) energy and production; fuel cells; energy planning and policy; energy efficiency in buildings & industries; energy economics; energy and environmental effects on humans; co2 mitigation and sequestration.

EE 4512 Smart Grid 3 (3-0-6)

Pre-requisite: EE 2201 Electric Circuits and
EE2605 Engineering Electronics

Study and practice about definition of smart grid, communication technology for smart grid, smart metering, demand side integration, distribution automation equipment, distribution management systems, power electronics in smart grid, flexible AC transmission system (FACTS), high- voltage direct current, energy source and storage technologies, smart grid to CO2 and Green Society.

EE 4518 Electrical Power Generation, Transmission 3 (3-0-6)
and Distribution

Prerequisite: EE 2410 Electrical Machines System

Load curve, diesel power plant, steam power plant; gas turbine power plant, combined cycle power plant, hydro power plant, nuclear power plant, renewable energy sources, type of substation, substation equipment, substation layout, lightning protection, grounding system.

EE 4705 Power Electronics 3 (3-0-6)

Prerequisite: EE 2410 Electrical Machines System and
EE 2605 Engineering Electronics

Characteristics of power electronics devices, power diode, thyristors, power bipolar junction transistor (BJT); MOSFET, IGBT, characteristics of magnetic material, power transformer core, ferrite core, iron powder core, converters, ac to dc converter, dc to dc converter, ac to ac converter, dc to ac converter.

EE 4706 Power Electronics Laboratory 1 (0-3-2)

Prerequisite or Co-requisite: EE 4705 Power Electronics

Experiments to be done according to EE 4705 Power Electronics.

EE 4901	Electrical and Electronics Engineering Project I	1 (0-3-2)
Prerequisite:	Completion of 100 credits	
Study and development of project in electrical and electronics engineering. Students must submit a report at the end of the semester.		
EE 4902	Electrical and Electronics Engineering Project II	2 (0-6-3)
Prerequisite:	EE 4901 Electrical and Electronics Engineering Project I	
Continuation of project done in electrical and electronics engineering Project I. Report is also required at the end of the semester.		
EE 4903	Advanced Topics in Electrical and/or Electronics Engineering	3 (3-0-6)
Prerequisite:	Completion of 90 credits with the consent of the Chairperson	
Topics of current interest and new developments on Electrical and/or Electronics Engineering.		
EE 4904	Special Problems in Electrical and/or Electronics Engineering	3 (3-0-6)
Prerequisite:	Completion of 90 credits with the consent of the Chairperson	
Investigation of special problems assigned by the instructor with the consent of the chairperson: a written report is required.		
EE 4907	Electrical Engineering Industrial Training	3 (0-9-6)
Prerequisite:	Consent of the Chairperson	
Engineering practice related to electrical engineering in private sectors or government agencies. Students need to submit reports regarding their duty assigned to the responsible faculty.		
EFE 4001	Selected Study in Engineering I	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons		
EFE 4002	Selected Study in Engineering II	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons		
EFE 4003	Selected Study in Engineering III	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons		
EFE 4004	Selected Study in Engineering IV	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons		
EFE 4005	Selected Study in Engineering V	3 (3-0-6)
Selected study of an engineering course of interest for students' broadened engineering horizons		
EG 1001	Digital Literacy	3 (3-0-6)
Basic digital tools and digital skills for office environments, online collaboration, the		

Internet including interworking and information security.

EG 1002 Application Design for Everyone Literacy 3 (3-0-6)
Basic concept for mobile/tablet application design, sensors and utensils implementation, basic programming tools, block based programming and User Interface design.

EG 1003 Introduction to Internet of Things (IoTs) Literacy 3 (3-0-6)
Introduction to fundamentals building blocks and concepts of Internet of Things such as computer systems, microprocessor, microcontroller, sensor, actuator, computer network, the Internet, network applications, various types of communication technologies including modern Internet of Things applications in various industries.

EG 1004 Artificial Intelligence for Beginners 3 (3-0-6)
Introduction to the basic concepts and techniques of artificial intelligence and machine learning including its usage in today's everyday life and modern real-world applications in various domains such as business, healthcare, engineering, etc.

EG 1005 3D Modelling and 3D Printing Technology 3 (3-0-6)
Computer-aided design; basic CAD tools; 3D part modelling and assembly; 3D printing technology; project using CAD and 3D printing technology.

EIB 2101 Fundamentals of Speech Communication 3 (3-0-6)
Prerequisite: ELE 1001 Communicative English I
Principles and practices of effective oral communication and aspects of speech communication, including the importance of audience analysis, message development, and delivery techniques. Development of critical listening skills, as well as strategies for effective interpersonal communication.

EIB 2102 Grammar Fundamentals for Business 3 (3-0-6)
Prerequisite: ELE 1002 Communicative English II
The fundamental principles of grammar and their practical application in various contexts. Importance of grammar in building credibility and professionalism in business interactions.

EIB 2103 Writing Skill Development 3 (3-0-6)
Prerequisite: ELE 1002 Communicative English II
Effective writing skill development, language structure improvement and basic conventions of academic writing in business contexts.

EIB 2104 Entrepreneurial English 3 (3-0-6)
Prerequisite: ELE 1002 Communicative English II
Study and practice English for work and negotiation to become skilled entrepreneurs in business start-ups.

EIB 2105 Trends in International Business English 3 (3-0-6)
Prerequisite: ELE 1002 Communicative English II
Language skills and cultural awareness necessary to thrive in the rapidly evolving in international business environment. Discussion of emerging trends, challenges and contemporary practices that shape communication in the corporate world.

EIB 2106	English for International Travel Industry	3 (3-0-6)
Prerequisite:	ELE 1002 Communicative English II	
English Language skills, cultural awareness, and knowledge to excel in the international travel industry for effective communication.		
EIB 2201	English Skills for ATC (Air Traffic Controllers)	3 (3-0-6)
Prerequisite:	ELE 1002 Communicative English II	
English language skills and knowledge to effectively communicate and ensure safe and efficient air traffic operations. Aviation terminology, phraseology, ICAO language proficiency, emergency communication ATC procedures, meteorology and regulations.		
EIB 2202	English Essentials for Healthcare and Nutrition	3 (3-0-6)
Prerequisite:	ELE 1002 Communicative English II	
General concepts of healthcare and nutrition, including essential medical and nutritional terminology. Enhancement of English communication in diverse healthcare and nutrition environments, including healthcare communication, medical consultation, and patient education.		
EIB 2203	English for Startups	3 (3-0-6)
Prerequisite:	ELE 1002 Communicative English II	
Enhancement of English language proficiency in various business contexts, focusing on key areas such as pitching ideas, networking, negotiating, and presenting to potential investors or clients with emphasis on developing effective communication skills to convey ideas, and drive business growth.		
EIB 2204	Language for Financial Literacy	3 (3-0-6)
Prerequisite:	ELE 1002 Communicative English II	
Essential language skills, including reading, writing, listening, and speaking, with a specific focus on finance-related contexts. Engagement in interactive activities, discussions, and case studies to reinforce comprehension and application of financial language.		
EIB 2205	Language for Entertainment Industry	3 (3-0-6)
Prerequisite:	ELE 1002 Communicative English II	
Development of a comprehensive understanding of the terminology, jargon, and specific language used in these domains. Exploration of the cultural nuances and trends that shape the entertainment industry.		
EIB 2206	Language for Music Lovers	3 (3-0-6)
Prerequisite:	ELE 1002 Communicative English II	
Exploration of various music genres, artists, and musical terminology, different musical styles, analyze song lyrics, and discuss the cultural significance of music.		
EIB 2207	Business English Internship	3 (0-9-3)
Prerequisite:	By consent of the instructor	
Practice English communication skills in a real world setting and gain practical experience in one of the business fields such as hotel, tourism, airline.		

EIB 3101	English Communication for People Operations	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
The development of communication and English language skills needed to perform in a variety of people operation situations including the enhancement of terminologies and phrases used in the international people operation context.		
EIB 3102	Public Speaking and Emceeing	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
The development of fundamental skills of English public speaking, including speech organization, delivery techniques, vocal variety, and body language to deliver impactful speeches; Master essential skills for MC, including the role of an MC (master of ceremonies), audience engagement, and effective transitions between segments to create a seamless and engaging experience.		
EIB 3103	International Trade and E-Commerce in English	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Fundamental principles and theories of international trade, including import-export procedure, international trade practices, export documentation, international trade terminology, and the role of e-commerce in facilitating global business transactions in the digital age. Enhancement of communicative English skills within the context of international trade and e-commerce.		
EIB 4101	News Literacy	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English	
Analysis of various forms of news media including domestic and international media, business content, columns, editorial, and feature stories with the impact of new media on society both online and offline.		
EIB 4102	Critical Thinking and Reading in Business English	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English	
Analysis of business texts through structured strategies for critical reading, including essential narrative, relevant and productive body of contemporary discourses in business articles and incorporate concepts, constructing from business articles to produce informed critiques of the text.		
EIB 4103	Art of Business English Translation (Thai students only)	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English OR EIB 2101 Grammar Fundamentals for Business	
Methods and techniques of translation of business contents in printed materials and media from English to Thai and Thai into English, development of competency to produce equivalent business texts in Thai and English.		
ELE 1001	Communicative English I	3 (2-3-6)
English skills in listening, speaking, reading, and writing for efficient communication in various contexts.		

ELE 1002	Communicative English II	3 (2-3-6)
Prerequisite:	ELE 1001 Communicative English I	
Communicative English using various language learning strategies, reinforcing listening, speaking, reading, and writing skills through interactive activities in various contexts.		
ELE 2000	Academic English	3 (2-3-6)
Prerequisite:	ELE 1002 Communicative English II	
Academic English with a multidisciplinary approach, emphasizing high-level reading, writing, listening, and speaking skills essential for effective learning at the university level.		
ELE 2001	Advanced Academic English	3 (2-3-6)
Prerequisite:	ELE 2000 Academic English	
Advanced English for academic purposes with a multidisciplinary approach, emphasizing critical and analytical thinking in reading, writing, listening, and speaking essential for effective learning at the university level.		
EN 2230	Listening and Speaking	3 (3-0-6)
Prerequisite:	ELE 1002 Communicative English II	
Intermediate English skills in listening and speaking within the contexts of daily usage, academic and business.		
EN 3212	Communicative Writing Skill Development	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Effective writing skill development in business and academic contexts and language structure improvement.		
EN 3213	Business Communication in English	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English OR EN 3212 Communicative Writing Development	
Overview of organizational communication, basic principles of Corporate Social Responsibility (CSR) and business English communication using various forms of media.		
EN 3214	Fundamental Writing Development	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Fundamental writing skill development, language structure improvement and conventions of academic writing		
EN 3234	English Pronunciation	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Correct American English pronunciation with emphasis on individual sounds, sounds in words, phrases, and sentences for speech intelligibility in academic, social and professional settings.		
EN 3272	Art of Translation	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
The purposes, types of text, methods and techniques of translation from English into Thai and from Thai into English, development of skills in analyzing sentence patterns of Thai and English languages, use of words, idioms and structures for accuracy in meaning and style of original document, and development of competency to produce equivalent texts in Thai and English		

EN 3281	English for Tourism	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Practice in English for correct and efficient communication in all aspects of travel and tourism.		
EN 3283	English for International Trade	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
English communicative skills and general concepts of import/export and international business.		
EN 3287	English for Office Management	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
English skills and proficiency for office management, practice in office work arrangement, meeting organization and minutes taking, appropriate work etiquette and professionalism.		
EN 3288	English for Airline Business	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
English communicative skills used in airline business, basic knowledge of the aviation industry and airline works, and specific terminology for airline business.		
EN 3289	English for Music Business	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
English communicative skills for effective learning and participating in music related topics. Discussion of music terminology and journalistic texts of various music genre and music business.		
EN 3290	English for Entrepreneurship	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Study and practice English for work and negotiation to become skilled entrepreneurs in business start-ups.		
EN 3291	Intercultural Business Communication	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Basic elements of culture and communication skills with an emphasis on cross-cultural interpretation and interpersonal communication.		
EN 3292	Grammar Essentials for Professional Life	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Review of the rules of grammar, identifying common grammar errors and refining business writing styles.		
EN 3293	English for Human Resources	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
The development of communication and English language skills needed to perform in a variety of human resources situations including the enhancement of human resources terminologies and phrases used in the international human resources context.		
EN 3294	English for Hotel Services	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Practice in English as used in hotel administration, reception, services and business contacts.		

EN 3295	English for Online Business	3 (3-0-6)
Prerequisite:	ELE 1002 Communicative English II	
English communication skills associated with online business concepts and practice including the use of language in blogging, e-commerce, and online advertising. Discussion of online business terminology and various genres of online texts.		
EN 3296	English for Diplomatic Affairs	3 (3-0-6)
Prerequisite:	ELE 2000 Academic English	
Use of spoken and written communication in bilateral and multilateral discussions and correspondence in various aspects of diplomatic affairs.		
EN 4232	Business Conversation	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English	
Practice in conversation on topics related to business, development of efficiency in the oral application of the language in business settings, and effective problem-solving in small groups.		
EN 4233	Public Speaking in English	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English	
Develop skills for effective public speaking in English. Focus on methods and practices for better informative and persuasive speaking, speech organization and visual aids.		
EN 4241	Critical and Analytical Reading	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English	
Development of critical and analytical reading skills, identification of various types of rhetorical strategies, analysis of global current socio-economic and humanitarian issues.		
EN 4254	Academic Writing(only for foreign students)	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English and EN3212 Communicative Writing	
Advanced writing skills for communication within academic and business contexts in an internationally accepted documented format.		
EN 4256	Introduction to Business Research Writing	3 (3-0-6)
Prerequisite:	EN 3214 Fundamental Writing Development or EIB 2103 Writing Skill Development	
Methodology and tools in business research, practice in writing for clarity and efficiency with correct terminology, and summaries in business research documents.		
EN 4259	New Media Literacy	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English	
Analysis of various forms of new media including domestic and international media, business content, columns, editorial, and feature stories with the impact of new media on society both online and offline.		
EN 4262	Reading of Modern Viewpoints	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English	
Reading and discussions of texts representing recent thoughts and views on human civilization, global citizenship, international affairs and analysis of articles published in a variety of fields.		

EN 4272	Translation in Business English	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English OR EN 3272 Art of Translation	
Translation of business contents in printed materials and media from English into Thai and Thai into English.		
EN 4292	Business Article Writing (only for foreign students)	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English	
Theories and practice of business article writing for various types of media.		
EN 4294	Business English Internship I	3 (3-0-6)
Prerequisite:	By consent of the instructor	
Practice English communication skills in a real world setting and gain practical experience in one of business fields such as hotel, tourism, airline, etc.		
EN 4295	Business English Internship II	3 (3-0-6)
Prerequisite:	By consent of the instructor	
In-depth practice English communication skills in a real world setting and gain extensive practical experience in one of business fields such as hotel, tourism, airline, etc.		
EN 4296	Advanced Listening and Note-taking in Business	3 (3-0-6)
Prerequisite:	ELE 2001 Advanced Academic English	
Advanced listening and note-taking skills in a variety of business context such as business interviews, international news, and international business conferences.		
ENX 1111	Digital Mindset and Sustainability	2 (2-0-4)
Training of attitudes and behaviors to foresee the impact of digital disruptions and also build new culture that enables people in organization to create new business possibilities and learn how to sustain business through digital mindset and innovation.		
ENX 1112	Entrepreneurial Inspiration	1 (1-0-2)
Process of being mentally stimulated to be an entrepreneur including self-discovering, goal setting, opportunity identification, self-preparation and development, life-long learning, and acknowledgement of the social value of their businesses.		
ENX1113	Business Innovation and Design Thinking	2 (2-0-4)
Systematic approach to business innovation and creative problem solving that can be used in developing new products, new services and new organizations of business. Design thinking tools are introduced to have self-development to become innovative thinker and to uncover business opportunities.		
ENX 1211	Leadership for a Digital Age	2 (2-0-4)
Training of leadership skills that empower people to lead others and create self-organized teams that optimize business operation in digital age.		
ENX 2222	Entrepreneurial Accounting	2 (2-0-4)
Integrated set of theories and application of accounting for entrepreneurs are emphasized. Accounting issues for entrepreneurs related to fundamental accounting, cash flow, and balance sheet management, and managerial accounting are included.		

- FBT 4002 Molecular Genetic and Recombinant DNA Technology 3 (2-3-5)
 Basic molecular biology and basic techniques in recombinant DNA technology, application of enzymes, vectors, and host gene isolation, detection of recombinant genes, strategies of gene cloning, genomic libraries, cDNA synthesis, gene identification, application of genetic engineering, ethical issues in genetic engineering, and corresponding laboratory sessions.
- FBT 4003 Natural Antioxidant and Toxicology 3 (2-3-5)
 Biochemistry of free radicals and natural antioxidants, type of reactive oxygen species (ROS), type of antioxidants, enzymatic and nonenzymatic antioxidants, the sources and origin of antioxidant which include fruits, vegetables and meat, estimation of antioxidants level, basic of toxicology and mechanism of toxicity, toxicology in the society and corresponding laboratory sessions.
- FBT 4004 Biopharmaceuticals 3 (2-3-5)
 Primary difference between biopharmaceuticals and traditional pharmaceuticals, biopharmaceutical classification system, drug discovery and drug development, recombinant technology, types of biopharmaceuticals, delivery of biopharmaceuticals, biopharmaceutical technology and manufacturing, characterization techniques of biopharmaceuticals, bioactivity determination of bioactive compounds, proteomics and molecular modeling, and corresponding laboratory sessions.
- FBT 4005 Nanomaterials for Life Science and 3 (3-0-6)
 Industrial Applications
 Introduction to nanoscience and nanotechnology, nanomaterial fabrication: top-down vs. bottom-up approaches, various types of nanostructured materials and their biomedical and biotechnological applications including drug delivery, biosensor and bio-separation, nanomaterials for agriculture, food and environmental protection, nano-cosmetics for skin applications, case studies of industrial nano-projects, toxicological impacts of nanomaterials on agriculture, food, and environment.
- FBT 4008 Eco-Friendly Bioproducts 3 (3-0-6)
 Sustainable development by becoming part of produces and making products on Zero Waste, end of product disposal, environmentally friendly packaging on advance zero waste practices, awareness on the connections between materials used for end products, develop recycled content to be valuable items, and environmental product labels.
- FIB 1515 Fundamental French 3 (3-0-6)
 Basic skills in listening, speaking, reading, and writing in French with a focus on everyday communication; exploration of essential vocabulary and grammatical structures to construct meaningful sentences; application of language skills to real-life scenarios. Basic skills in listening, speaking, reading, and writing in French with a focus on everyday communication; exploration of essential vocabulary and grammatical structures to construct meaningful sentences; application of language skills to real-life scenarios.
- FIB 1516 Communicative French I 3 (3-0-6)
 Prerequisite: FIB 1515 Fundamental French
 Development of students' intermediate-level proficiency in listening, speaking, reading, and writing in French with a focus on everyday communication. Acquisition of vocabulary and grammatical structures necessary for achieving conversational fluency.

FIB 2517	French Culture and Society	3 (3-0-6)
Introduction to contemporary French society and culture through discussions and authentic documents, focus on contemporary social issues and insights on arts, literature, gastronomy, and various aspects of French culture. This course is taught in English.		

FIB 2518	Communicative French II	3 (3-0-6)
Prerequisite:	FIB 1516 Communicative French I	
Enhancement of students' communication skills in French, vocabulary expansion and acquisition of complex grammatical structures, through discussions and in various contexts.		

FIB 2519	French Pronunciation	3 (3-0-6)
Prerequisite:	FIB 1516 Communicative French I	
Improvement of oral French skills and acquisition of tools and techniques for a clear and authentic pronunciation. Focus on intonation, vowels, consonants, elision, enchainment and liaison, symbols of IPA and transcriptions, listening and pronunciation drills.		

FIB 2520	Advanced French	3 (3-0-6)
Prerequisite:	FIB 2518 Communicative French II	
Development of advanced communicative skills in French for various contexts, including professional and academic. Focus on vocabulary expansion and acquisition of complex grammatical structures through reading and listening of authentic documents, class discussion and debates, and essay writing.		

FIB 2521	Listening and Speaking Skills in French	3 (3-0-6)
Prerequisite:	FIB 2518 Communicative French II	
Intermediate listening and speaking skills in French for various contexts. Focus on listening comprehension, conversational fluency, ability to express oneself in proper French.		

FIB 2522	Reading and Writing Skills in French	3 (3-0-6)
Prerequisite:	FR 2518 Communicative French II	
Intermediate reading and writing skills in French for various contexts. Focus on reading comprehension, proofreading techniques, textual grammar, and ways of improving writing with clarity.		

FIB 3523	Business French I	3 (3-0-6)
Prerequisite:	FIB 2520 Advanced French	
Acquisition of the linguistic and cultural competencies needed in the French-speaking business world through real-world tasks and case studies. Development of effective communication skills for business meetings, negotiations, and professional correspondence.		

FIB 3524	French Media Literacy	3 (3-0-6)
Prerequisite:	FIB 2520 Advanced French.	
Exploration of the media in French society, analysis of newspapers, magazines, television, radio, and digital platforms. Development of critical thinking skills to evaluate and deconstruct media messages, understand biases, and interpret news and entertainment content.		

FIB 3525	Translation Studies (for Thai students)	3 (3-0-6)
Prerequisite:	FIB 2520 Advanced French	
Practice skills of translating from French into clear and correct Thai, and vice versa through authentic and varied texts written in French and Thai (journalistic, cultural, scientific, etc.).		
FIB 3526	Intercultural communication strategies for French-speaking contexts (For non-Thai students)	3 (3-0-6)
Prerequisite:	FIB 2520 Advanced French.	
Acquisition of the language skills and cultural insights necessary for effective intercultural communication in the French-speaking world. Focus on the nuances of communication styles, etiquette, and values across different French-speaking regions and communities through real-world scenarios, case studies, and interactive exercises.		
FIB 3527	Advanced Listening and Speaking Skills in French	3 (3-0-6)
Prerequisite:	FIB 3523 Business French I	
Development of advanced listening and speaking skills in French for various contexts, including professional and academic. Focus on understanding nuances and acquisition of public speaking techniques.		
FIB 3528	Advanced Reading and Writing Skills in French	3 (3-0-6)
Prerequisite:	FIB 3523 Business French I	
Development of advanced reading and writing skills in French for various contexts, including professional and academic. Focus on comprehension of authentic texts, writing and summarization techniques.		
FIB 3529	Advanced French Grammar	3 (3-0-6)
Prerequisite:	FIB 3523 Business French I	
Acquisition of advanced grammar knowledge and skills in French. Focus on complex grammar structures, textual grammar, accurate use of tenses and modes, through exercises and proofreading activities.		
FIB 3634	French for Hotel Services	3 (3-0-6)
Prerequisite :	FIB 1516 Communicative French I	
Various dialogues of French as used in hotels and restaurants, reception, services and message taking from inside and outside calls, French-Thai foods and beverages, French wine.		
FIB 3635	French for Airline Services	3 (3-0-6)
Prerequisite :	FIB 1516 Communicative French I	
Development of French language skills to communicate clearly and concisely with native French speakers, including passengers, flight attendants, etc. Acquisition of a wide range of aviation-specific vocabulary and expressions essential for a successful career in the airline industry.		
FIB 3636	French for Workplace Communication	3 (3-0-6)
Prerequisite :	FIB 1516 Communicative French I	
Development of listening, reading, speaking and writing skills in French for workplace communication with an emphasis on corporate culture.		

FIB 3637	DELF Exam A1/A2 Preparation	3 (3-0-6)
Prerequisite :	FIB 1516 Communicative French I	
Development of students' readiness for listening, reading, writing, and speaking parts of the DELF exam at the level A1/A2 of the CEFR through practices and mock exams.		
FIB 3638	Business French Internship	3 (0-9-3)
Prerequisite :	By Consent of instructor	
Practice of French communication skills in a real world setting and gain practical experience in one of business fields such as hotel, tourism, airline, etc.		
FIB 3639	French for Luxury Fashion Industry	3 (3-0-6)
Prerequisite :	FIB 1516 Communicative French I	
Definition of luxury fashion industry in French-speaking regions. Development of French communication skills specific to this industry, including terminology, etiquette, and cultural nuances.		
FIB 3640	French for Digital Communication	3 (3-0-6)
Prerequisite :	FIB 1516 Communicative French I	
Development of oral and written skills in French for digital communication, including email, social media messaging, and online content creation. Explore the language of the digital sphere and effective online communication strategies.		
FIB 3641	French for Social Media Marketing	3 (3-0-6)
Prerequisite :	FIB 2518 Communicative French II	
Definition of social media marketing. Development of French communication skills specific to social media marketing, including vocabulary, etiquette, responding to online inquiries and creation of engaging digital content.		
FIB 3642	Survey of French Entertainment Industry	3 (3-0-6)
Prerequisite :	FIB 2518 Communicative French II	
An overview of the French entertainment industry, with a focus on audiovisual production, including French cinema, television, music, and digital content, and an exploration of its influence on the global cultural landscape.		
FIB 3643	Survey of French Literature	3 (3-0-6)
Prerequisite :	FIB 1516 Communicative French I	
An overview of French classical and modern literature and culture, including an exploration of major literary trends through the study of representative works from each period.		
FIB 3644	French for Media and Journalism	3 (3-0-6)
Prerequisite :	FIB 2520 Advanced French	
Development of skills for effectively reporting, writing, and communicating news and stories in French, along with an introduction to the language of journalism. Range of topics, including reporting, interviews, news writing, and media ethics, through practical exercises, news analysis, and reporting assignments.		
FIB 3645	Romance Language Intercomprehension	3 (3-0-6)
Prerequisite :	FIB 1516 Communicative French I	
Identify lexical and grammatical similarities between French and Spanish, and simultaneously develop reading skills in both languages.		

FIB 3646	DELF Exam B1 Preparation	3 (3-0-6)
Prerequisite :	FIB 2518 Communicative French II	
Preparation for the DELF exam at CEFR level B1, focusing on enhancing students' proficiency in listening, reading, writing, and speaking through practice, mock exams, and personalized feedback.		
FIB 4530	Business French II	3 (3-0-6)
Prerequisite :	FIB 3523 Business French I	
Development of competencies necessary for business communication in French. Improvement of communicative effectiveness and accuracy through specific vocabulary acquisition, real-world tasks and case studies.		
FIB 4531	Aspects of French-Speaking countries	3 (3-0-6)
Prerequisite :	FIB 3523 Business French I	
Acquisition of extensive knowledge and understanding of French history and civilization, impact of colonization and place and importance of the French language in the world today, through discussions and studies of authentic documents.		
FIB 4532	French for Academic Purposes	3 (3-0-6)
Prerequisite :	FIB 3529 Advanced French Grammar	
This course aims to equip students with French academic language skills that meet the requirements for studying in French-speaking countries.		
FR 0510	Basic French (Non-Business French Major)	3 (3-0-6)
Initiation to listening, speaking, writing and reading in French, in an interactive and communicative way.		
FR 1510	French I	4 (3-2-6)
Introduction to French language through listening, speaking, reading, and writing in everyday life situations.		
FR 1511	French II	4 (3-2-6)
Prerequisite:	FR 1510 French I	
Development of listening, speaking, reading, and writing skills through activities.		
FR 2512	French III	4 (3-2-6)
Prerequisite:	FR 1511 French II	
Development of intermediate listening, speaking, reading, and writing skills in French with various contexts.		
FR 2513	French IV	4 (3-2-6)
Prerequisite :	FR 2512 French III	
Development of upper intermediate listening, speaking, reading, and writing skills in French focusing on professional contexts.		
FR 2514	French Pronunciation	3 (3-0-6)
Prerequisite:	FR 2512 French III	
French speech sound system: vowels, consonants, elision, enchainment and liaison, symbols of IPA and transcriptions; listening and pronunciation drills.		

FR 3501	Business French I	3 (3-0-6)
Prerequisite:	FR 2513 French IV	
Understanding of various contexts in business communication, practice of reading, speaking and writing by using business vocabulary.		
FR 3512	Business Communication in French	3 (3-0-6)
Prerequisite:	FR 2513 French IV	
Review of technical terms in business, various types and forms of letters, practice of listening, reading and writing texts and letters in business context.		
FR 3514	Writing Workshop	2 (1-2-2)
Prerequisite:	FR 2513 French IV	
Practice of writing short essays, then articles, brochures, etc.		
FR 3530	Oral Comprehension and Expression	3 (3-0-6)
Prerequisite:	FR 2513 French IV	
Practice of listening, oral comprehension and discussion, technique of giving opinion and argument on various topics.		
FR 3532	French Conversation and Discussion (for foreign students)	3 (3-0-6)
Prerequisite:	FR3530 Oral Comprehension and Expression	
Practice of speaking skills on daily life and business topics, through individual presentations, group and panel discussion pattern.		
FR 3537	Communicative Skills in French	3 (3-0-6)
Prerequisite:	FR 2512 French III	
A thorough structure review, vocabulary enrichment, and development of the four core competencies. It focuses on real-life language use.		
FR 3539	French for Workplace Communication	3 (3-0-6)
Prerequisite:	FR 2512 French III	
Development of 4 French skills in workplace communication.		
FR 3570	Translation: French-Thai (for Thai students) (or FR3532 French Conversation and Discussion-for foreign students)	3 (3-0-6)
Prerequisite:	FR 2513 French IV	
Translation of sentences, paragraphs and articles from various sources: extracts from articles, newspapers, books, advertisement and websites, selection of proper words, idioms and structures to convey the accurate meanings and style levels of the original documents.		
FR 3581	French for Tourism	3 (3-0-6)
Prerequisite:	FR 2513 French IV	
Use of the French language in tourism, a field trip with the professional guide, general knowledge of tourism business.		
FR 3583	French for Hotel Services	3 (3-0-6)
Prerequisite:	FR 2513 French IV	
Various dialogues of French as used in hotels and restaurants, reception, services and message taking from inside and outside calls, French-Thai foods and beverages, French		

wine.

- FR 4502 Business French II 3 (3-0-6)
Prerequisite : FR 3501 Business French I
In-depth study of business French and advanced French vocabulary through practice of listening, speaking, reading and writing skills.
- FR 4540 Reading in Business French 3 (3-0-6)
Prerequisite: FR 2513 French IV
Techniques of reading articles in business contexts, interpretation of factors and purposes used in the articles, developing outlines and short synopses of selected material and leading discussions on the assigned topics.
- FR4541 Business French Internship 3 (3-0-6)
Prerequisite: Consent of instructors
Practice French communication skills in a real world setting and gain practical experience in one of business fields such as hotel, tourism, airline, etc.
- FR 4543 Reading French Media 3 (3-0-6)
Prerequisite: FR 3501 Business French I
Readings and analyses various articles, with the study of the vocabulary and the context of the articles on the current interest and business oriented. A study of French language press in particular: newspapers, magazines and articles through the internet.
- FR 4572 Translation in Business French 3 (3-0-6)
Prerequisite: FR 3501 Business French I
Practice of translation from French into Thai: various types of articles and business data from newspapers, texts, magazines and internet articles, etc.
- FR 4573 Aspect of French-Speaking Countries 3 (3-0-6)
Prerequisite : FR 2513 French IV
French speaking countries' life style and culture, thought patterns, mentality, civilization and interdisciplinary studies.
- FR 4590 Seminar 3 (3-0-6)
Prerequisite: FR 4502 Business French II
Various problems in using Business French. Development of students' French language skills. Workshop and panel discussions.
- FR 4591 Selected Topics in French Studies 3 (3-0-6)
Prerequisite: FR 2513 French IV
Critical analysis of French language or culture on assigned topics.
- FT 1001 Food Technology Exploration 3 (3-0-6)
An introduction to scientific principles of how and why foods are processed, prepared, and stored for human consumption. From raw commodities, plants, animals, and agricultural products are transformed to products on supermarket shelves. Exploration of foods and science related to food safety, organic food, herbalism, food preservation, and nutritional enhancement. Discover how the food industry and regulatory agencies deal with potential health hazards associated with toxic chemicals and disease-causing organisms that can be

present in foods.

FT 1002	Calculus for Biotechnology	3 (3-0-6)
Limit and evaluation of limit. Introduction to differentiation, differentiation rules, chain rule and implicit function differentiation, higher order differentiation. Application of differentiation in biotechnology, including related rate, extrema determination, process optimization by both calculus principle and software. Introduction to integration and integration techniques. Application of integration in biotechnology, including area under curve, volume of solid of revolution by disc and shell method. Calculus for multivariable function and its application.		

FT 1003	Food Factory Explore Trip (Special Course)	3 (3-0-6)
Exclusive trip to visit popular food, dessert, or beverage factories. Understanding from the production process to packaging and logistics.		

FT 1004A	Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
Up-to-date information and innovation on food technology, agriculture technology and biotechnology		

FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
Recent innovation for the deployment of Food-Agri-Biotechnologies at commercialization stage.		

FT 1005	Sustainability and Circular Living	3 (3-0-6)
Goal of sustainability, guidelines, and concept of Bio-Circular Green (BCG) economy including the importance and benefits of BCG to business, society, and the environment.		

FT 2001	Genetic inheritance and Molecular Genetic in Food application	3 (2-3-5)
Principles of classical genetics, Mendel's principles, exception of Mendel, chromosome mapping, molecular genetics which includes the structure and functions of DNA, extra chromosomal inheritance, central dogma, control of gene expression, evolutionary genetics, and quantitative and qualitative genetics. Introduction to genetically modified (GM) foods and its safety, detection of genetic contaminants using PCR and other food applications along with corresponding laboratory sessions.		

FT 2002	Advanced Chemistry	3 (2-3-5)
Connection between organic and biological chemistry, weak interactions in organic and biological world, proximity effect in organic chemistry, molecular recognition, analogy between biochemical and organic reaction, chemical analysis, and physicochemical method of analysis.		

FT 2003	Foods Changing the World	3 (3-0-6)
The appreciation and connection of food as a cultural force. Revolution History through food and drink. Social structure in dimension of consumption, food culture, food and conflict in world history. A challenge of food on health and sustainability. Industrial farming, agricultural subsidies, and diminishing water supplies.		

- FT 2003A Foods Changing the World (Part A) 2 (2-0-4)
The appreciation and connection of food as a cultural force. Revolution History through food and drink. Social structure in dimension of consumption, food culture, food and conflict in world history
- FT 2003B Foods Changing the World (Part B) 1 (1-0-2)
A challenge of food on health and sustainability. How the food system is broken. Industrial farming, agricultural subsidies, and diminishing water supplies.
- FT 2004 Drinkology: The Art of drinking 3 (3-0-6)
All about cocktails, soda, wine, beer, and other beverages; extraordinary range of materials, making process, and packaging. How to drink and how to evaluate the taste of each beverage.
- FT 2005 Food Zodiac 3 (3-0-6)
Identify your zodiac sign and lord of house elements. Zodiac and personality traits, food habits and how it affects health. Foods to eat and to avoid based on zodiac signs and lord of house elements.
- FT 2006 Functional Food and Nutrition for Health 3 (3-0-6)
Concept of functional food, bioactivity of various functional compounds and their role in health promotion, health attributes and claims, consumer behavior and attitudes related to functional foods and health claims and non-regulated claims, and market trends including their role in the food and health industries.
- FT 2007 Food Composition and Analysis 3 (2-3-5)
Food system and structure. Basic food components, water, carbohydrate, protein and lipid, their chemistry governing properties and functions in different foods, changes of food components during processing and storing, food additives, phytochemicals, trend and innovation in food system and composition and corresponding laboratory sessions.
- FT 3115 Food Safety and Microbiology Technology 3 (2-3-5)
Understanding the scope of food microbiology and food safety; to obtain the knowledge about important genera of microorganisms associated with food and their characteristics; to learn various techniques for enumeration and control of microorganisms in food; to understand the role of different microorganisms in food spoilage, food fermentation and food-
- FT 3117 Food Processing Innovation and Technologies 3 (2-3-5)
Commercial food processing techniques such as thermal process, drying, freezing, irradiation, and chemical preservation techniques as well as food material variability and raw material preparation. Advances in innovative and nonthermal processing, such as high pressure, pulsed electric fields, radiofrequency, high intensity pulsed light, ultrasound, and hurdle technology.
- FT 3118 Properties of Food and Engineering 3 (2-3-5)
Unit conversion. Mass and energy balance. Basic knowledge in fluid mechanics, heat transfer, mass transfer, and rate kinetics. Design and engineering principles of various unit operations. Topics include pumps, heat exchangers, evaporators, dryers, refrigerators, freezers, size reduction units, and homogenizers. Recent advances in drying technology,

microwave technology, ultrasonication technology, and other related technologies. Laboratory session is provided.

FT 3119 Advanced Food Physical and Chemistry 3 (2-3-5)
Theory and application of physical and chemical methods for determining the constituents of foods, innovative separation, and various instrumental analysis techniques.

FT 3120 Protein and Enzyme Technology 3 (2-3-5)
Protein types, their sources, basic properties, functional properties. Structure and functions of enzymes, including enzyme kinetics, regulation and inhibition, effect of pH and temperature, production, and extraction of enzymes by means of mechanical, physical or chemical disruption of plant, animal or microbial cells, techniques such as purification, immobilization and isolation of enzymes as catalysts, and corresponding laboratory sessions

FT 4133 Introduction to Wine Appreciation 3 (3-0-6)
Introduction to the major wine-producing regions of the world and traditions involved in wine making, history of wine, different components of wine sensory properties (appearance, aroma, and flavor), wine evaluation techniques, factors influence sensory properties of wine, terms on wine label, food and wine pairing, wine etiquette and responsible consumption, and hands on experience in wine tasting and pairing.

FT 4143 Food Quality and Regulation 3 (2-3-5)
A general overview of the laws, regulations, practical applications and standard of the food quality and safety system, food laws and regulations including Thai and/or international regulatory compliance, codex, risk analysis, nutritional labeling and food quality and safety system (GMP, HACCP, ISO 22000 etc.) and corresponding laboratory sessions.

FT 4144 Food Ingredients Functionality 3 (3-0-6)
Overview of ingredients and their applications, relationships between the structure of food ingredients and their techno-functional and bio-functional properties, influence of process on the food structure and food properties, food ingredients design, and ingredient modification to improve food functionality.

FT 4145 Packaging Design Innovation 3 (3-0-6)
Innovation of packaging, function, importance, identity, advertising, safety, and communication. Developing and executing materials, concepts, and graphics appropriate for effective packaging, including creative design process, technical and production areas of packaging and label design.

FT 4146 Food Product Design and Development 3 (2-3-5)
Prerequisite: FT 3117 Food Processing Innovation and Technologies
New products idea and new product development process for food industry and its concept generation using design thinking techniques and tools, how to convert its concept into actual product ready for commercialization which include idea screening, product concept development, product formulation and process development, product quality testing, shelf-life evaluation, product launching and evaluation, food entrepreneur cases, and corresponding laboratory sessions.

- FT 4147 Industrial Fermentation Innovation and Products 3 (2-3-5)
Use of microorganism for producing important industrial fermentation products, metabolic regulation of the pathways that generate products from yeast and other microbial fermentations for industrial applications, with corresponding laboratory sessions.
- FT 4148 Consumer Food Marketing 3 (3-0-6)
Knowledge, concepts and theories of basic marketing environment, customer types, buyer behavior, market segmentation and marketing mix and their application in consumer food choice and behavior.
- FT 4149 Sensory Marketing and Consumer Behavior 3 (3-0-6)
Concept of marketing uses five senses (sight, smell, taste, sound, and touch) to influence buying behavior. Principles of how psychological, sociological, personal, and cultural factors influence buying behavior.
- FT 4151 Internship for biotechnology students 3 (0-9-4)
Student could be prepared as a trainee or a temporary employee in the selected training organizations, including Government or Non-Government sector, one semester. After finishing, students have to send a report and presentation to course coordinator. The evaluation criteria are based on the evaluation results from supervisor of working place, intern' report and course coordinator.
- FT 4152 Bioinformatics for Food Technology 3 (3-0-6)
Using bioinformatics software, internet, management of primary biological database of DNA and protein, study structure of DNA, gene and protein, utilization of biological databases for food industry.
- FT 4153 Integrated IOT to Smart and Green Food Industry 3 (3-0-6)
Integration of IOT system to food production system in digital network for Smart and Green Food Industry
- FT 4154 Intelligent Packaging Technology 3 (3-0-6)
Packaging technology in the food industry to save data during transportation, storage, and communication with consumers; sales system for important information showing food quality and food safety.
- FT 4155 Gastronomy Tourism 3 (3-0-6)
Social and cultural aspects of Thai foods, tourist food consumption, road trip, Thai food culture, identity of Thai foods and their ingredients, Thai food diversity, and health benefits.
- FT 4157 Advanced Food Processing Innovations and Technologies 3 (2-3-5)
Innovative system and its integration in the preparation, production, optimization, and scale-up to create the high production rate, flexibility, and efficiency food production process.
- FT 4158 Sweet and Bitter Tasty Café 3 (2-3-5)
Confectioneries and Thai desserts, sweets fusion, coffee, and tea; types, production, brewing, taste, coffee/tea culture, and the pair of coffee or tea with sweets.

- FT 4161 Intelligent Food for the Future 3 (3-0-6)
Four groups of Food for Future Industry in Thailand S-Curve including Functional Food, Medical Food, Organic Food, and Novel Food.
- FT 4162 Bakery Technology and Entrepreneur Management 3 (2-3-5)
Type and properties of baking ingredients; formula balance, bakery products, processing and their keeping qualities, packaging and storage, quality control and management of industries, including bakery business plan and bakery business preparation.
- FT 4163 Dairy and Plant-Based Dairy Alternatives Innovation 3 (2-3-5)
Milk biosynthesis and factors affecting milk biosynthesis. Chemical, physical, and microbiological properties of milk and milk products, spoilage, storage, and processing methods of milk products. Determination of milk quality and standards of milk and milk products as well as dairy plant sanitation and plant-based dairy alternatives innovation.
- FT 4164 Plant-Based Meat, Lab Grown and Meat Innovation 3 (2-3-5)
Principles and technology of farm to table of meat industry, principle of meat science and muscle structure, understand meat technology such as cooked meat, frozen meat, dried meat, cured meat and sausages products etc., standard of meat safety and quality for human consumption. Understand innovation meat technology and related products such as lab grown meat or cultured meat technology, planted based meat products including corresponding laboratory sessions.
- FT 4165 Nutritional therapy 3 (3-0-6)
General nutritional concepts in health and disease, nutrients and their functions, food sources, digestion, absorption, and metabolism, application in the promotion of health, the current nutrition theory and evidence-based practice in prevention and treatment of disease, special needs for different groups, and current and update in the field.
- FT 4166 Bitter n Sweet Sonata 3 (2-3-5)
Chocolate, confectioneries and Thai desserts, sweets fusion, chocolate drink, coffee, and tea; categories, process, brewing, taste, coffee/tea culture, and the pairing of bitter drink with sweets.
- FT 4190 Special project 3 (0-9-4)
A project involving an aspect of food technology knowledge, experimental design, collection, and data analysis will be done under the faculty member's supervision. A report and presentation of the research work is compulsory.
- FT 4191 Field Trip 3 (0-3-1)
Visit to food and agro-industrial production facilities to view specific aspects of processing and management. A written report of the tour is required.
- FT 4301 Selected Topic I 3 (3-0-6)
Discussion and advanced study of a selected topic in the field of food technology and others
- FT 4302 Selected Topic II 3 (2-3-5)
Discussion and advanced study of a selected topic in the field of food technology and others including corresponding laboratory sessions.

FT 4303	Selected Topic III	3 (3-0-6)
Advanced study of a selected topic in the field of food technology and related fields.		
FT 4304	Selected Topic IV	3 (2-3-5)
Advanced study of a selected topic in the field of food technology and related fields including corresponding laboratory sessions.		
FT 4305	Selected Topic V	3 (3-0-6)
Study of a trendy topic in the field of food technology, biotechnology, and others related field.		
FT 4306	Selected Topic VI	3 (2-3-5)
Study of a trendy topic in the field of food technology, biotechnology, and others related field including corresponding laboratory sessions.		
FTC 4001	Discover the Circular Economy	3 (3-0-6)
Global issues, guidelines, and concept of circular economy, understand its history, its nuances, impacts, the benefits it offers to business, society, and the environment, and learn how the concept can be applied to different parts of the economy.		
FTC 4003	Sustainable Food Security	3 (3-0-6)
Goals of food sustainability, security, and safety. Hierarchy of strategies for reducing food losses, waste, and resource footprints, solution and major contribution to the future food security, climate-resilient food supply, inclusive and efficient market, and trade system, and transforming agricultural economy.		
FTC 4004	Scents and Sense Symphony	3 (2-3-5)
Human sensation, physiological and evolutionary implication of the senses, the resemblances and the differences between flavor and taste, sense stimulation by color and flavor, overview of essential oil therapy, and current aromatherapy practices.		
FTC 4005	Food Communication	3 (3-0-6)
Role and evolution of media in food business and industry, food-centric communication, and marketing from social media, blogging and PR to recipe writing including other food-related communications.		
FTC 4006	Analysis and Insight of Food Business	3 (3-0-6)
Big data analytics for food business, awareness, consideration, conversion, data collection, and its industrial applications including strategies for pricing, product promotion, product development as well as demand forecasting.		
FTC 4009	Molecular Gastronomy	3 (2-3-5)
Innovative food transformation, integrating science into cooking and dining, ingredients, and technical innovation of molecular gastronomy.		
GDC 3101	Packaging Design	3 (2-2-5)
Prerequisite:	AAD 1004 3D Foundation	
Structure, primary and secondary package design, substrates, materials, methods, practical and production consideration, manufacturing processes, marketing and brand identity integration, 3Ddesign and prototyping, information design, commercial and		

governmental regulations, green packaging design, sustainable packaging, problem-solving and innovative solutions

GDC 3102 Digital Typeface Design 3 (2-2-5)

Prerequisite: AAD 1005 Fundamental of Typography

Structure, type design hierarchy, handwritten script, revival and standard typeface, letter form digitization, kerning and spacing, type specimens, current professional font editor software

GDC 3103 Infographic Design 3 (2-2-5)

Prerequisite: AAD 2010 Corporate Visual Identity

Data management, information analysis, infographic structure, quantitative data, interactive data visualization, visual storytelling and display, visual representation of commercial and private venues

GDC 3104 Digital Publication Design 3 (2-2-5)

Prerequisite: AAD 1005 Fundamental of Typography

Typographic manipulation, advanced typographic grid system, interactive publication, practical and experimental typographic solutions, current layout, and interactive design software.

GDC 3105 Brand Identity System 3 (2-2-5)

Prerequisite: AAD 2010 Corporate Visual Identity

Visual brand assets and extensions, brand and design strategy, problem solving and creative solutions, design process and effective communication, comprehensive visual experience for a business, organization, green design for brand identity system and social campaign, online design system, product, person

GDC 3106 Environmental Graphic & Exhibition Design 3 (2-2-5)

Prerequisite: AAD 1004 3D Foundation

Environmental graphic design systems, integrated signage and way finding design, multimedia display methodologies, narrative structure and visual storytelling, audience perception and understanding, interactive experience, spatial planning, construction and organization, sustainable materials for exhibition design

GDC 3107 User Interface and User Experiences Design 3 (2-2-5)

Prerequisite: CA 1103 Introduction to Computer Graphic Design

User-centered design, usability analysis, digital interface and interaction, industry-standard digital methods and software, content management system platform, prototype concepts in business, social, and cultural contexts.

GDC 3108 Photograph Manipulation 3 (2-2-5)

Prerequisite: AAD 2008 Digital Photography

CA 1103 Introduction to Computer Graphic Design

Advanced digital image editing techniques, professional digital imaging workflow, color corrections and color management systems, images of various formats and styles, digital imaging restoration, enhancement, and manipulation.

GDC 3270-74 Selected Topics in Graphic Design Practices 3 (2-2-5)

An exposure and exploration of selected topics in communication design practices. The

topics will be announced semester by semester.

- GDC 4109 Applied Motion Graphic Design 3 (2-2-5)
Prerequisite: CDI 2202 Motion Graphics and Storytelling
Integration of design, typography, photo imaging, sound, video and two-dimensional animation, role of motion in digital communication, storyboard and animatic planning, creative strategies for commercial usage, digital visual effect and compositing design software.
- GDC 4110 History of Modern Art and Design 3 (3-0-6)
Modern design 1900-present, applied arts and industrial design, pioneers to modernism and the expansion of design, dynamic relationship between design, manufacturing, technology, social and commercial contexts.
- GDC 4111 Surface Pattern Design 3 (2-2-5)
Mark making, repetition, layout, color palette, traditional processes to contemporary media, applied arts and industrial design application.
- GDC 4112 Paper Arts and Craft 3 (2-2-5)
Paper art, cutting, card, origami, layer arts, folding technique, paper craft, quilling art, paper structure, paper peepshow.
- GDC 4113 Printmaking 3 (2-2-5)
History of printmaking, basic printmaking methods (intaglio, relief, planography, stencil), processes and techniques (mono print, linocut, collagraph, dry point, emboss, silkscreen), exploration and experimentation, technical and conceptual consideration.
- GDC 4114 Graphic Design for Startup 3 (2-2-5)
Logo design, basic graphic design theory: color usage, page layout, photo retouching, graphic software.
- GE 1102 Introduction to Philosophy 3 (3-0-6)
History of Western, Greek, modern, and contemporary philosophy, focusing on metaphysics, epistemology, life value and application.
- GE 1103 Thai Historical Perspectives 3 (3-0-6)
Foundation and evolution of the Thai race from prehistoric, and historical periods in the Sukhothai, Ayudhaya, Thonburi, and Rattanakosin periods. Thai culture and society during the present period under King Rama IX. The implementation of the Self-sufficiency Economy and other royal projects.
- GE 1104 Thai Historical Perspectives 3 (3-0-6)
The origin and evolution of the Thai race from prehistoric, and historical periods in the Sukhothai, Ayudhaya, Thonburi, and Rattanakosin periods. culture and diversity of thoughts in current Thai society. The implementation of the philosophy of Sufficiency Economy and other royal projects.
- GE 1105 Contemporary Philosophy 3 (3-0-6)
Development of Eastern and Western philosophy from ancient Greek philosophy to contemporary philosophy, focusing on the influential ideas in the history of mankind and

the application in social current circumstances.

GE 1107 Perspectives in Politics and Economy 3 (3-0-6)
Political ideologies; human nature; social contract; political systems; monarchy; aristocracy; democracy; communism; roles and responsibilities of government and citizen; political change, social organization of property; economic value, capitalism, socialism.

GE 1201 Information and Literacy Skills. 1 (1-0-3)
Definition and importance of information literacy skills, values of information, determination of information need, selection of effective techniques in gathering information, evaluation, syntheses information utilization, media literacy.

GE 1202 Fundamental Psychology 3 (3-0-6)
Theories of psychology; sensations, perception, memorizing and forgetting processes; language and thought; motivation, stress and its effect on human behaviors; responding to difficult life situation.

GE 1203 Society, Politics and Economics 3 (3-0-6)
Culture and relationship between culture and individual, factors in social and cultural changes, social changes, contemporary social problems and social control, political and economic functions, the causes and consequences of World War I, II and the Cold War, political and economic changes, globalization and related problems.

GE 1204 Physical Education 1 (0-2-1)
Improving physical fitness and psychomotor skills, creating unity among students, and developing the sportive mind, sports injury precautions and prevention.

GE 1205 ASEAN Ways 3 (3-0-6)
Understanding ASEAN, valuing concepts of identity and diversity, connecting global and local issues, relationship among ASEAN member states, importance of working with other nations to overcome challenges, economic and resource policies, and practices, and practices to promote the well-being of nations and individuals.

GE 1206 Philosophy of Sufficiency Economy and Sustainability 3 (3-0-6)
Philosophy of Sufficiency Economy concept and its pillars, ways of life in urban society in accordance with the philosophy, Sufficiency Economy process-driven in society and daily life, applying Sufficiency Economy Philosophy to everyday life, Sufficiency Economy for sustainable development, Royal projects in accordance with the philosophy.

GE 1209 Psychology Application in Daily Life 3 (3-0-6)
Theories of psychology. sensations, perception, thoughts, motivation, stress and its effect on human behaviors, responding to difficult life situation, EQ, AQ, SQ, Stress Management, Resilience.

GE 1302 Ecology and Sustainability 3 (3-0-6)
General science, scientific approaches, understanding the interrelationships of the nature, identification and analysis of environmental problems, application and alternative solutions for preventing and solving environmental problems

GE 1303	Science for Sustainable Future	2 (2-0-4)
The interrelationship of human beings, science, technology, and nature, natural resources utilization on future environmental challenges, the importance of natural capital and ecosystem services on sustainability, the importance of sustainable natural resources for future.		
GE 1403	Thai Language for Professional Communication (For Thai Students)	3 (3-0-6)
Communication skills to enhance understanding by effective listening, reading, writing and public speaking, information search for academic writing.		
GE 1405	Thai Language and Culture (Required course for non-Thai students)	3 (3-0-6)
Thai language for basic communication, basic knowledge in listening, speaking, reading, and writing. Thai cultural and traditional patterns, ways of life, festivals and local culture in different parts of Thailand.		
GE 1406	Burmese Language	3 (3-0-6)
Basic Burmese language skills in listening, speaking, reading, and writing, Burmese language uses in daily life.		
GE 1407	Russian Language	3 (3-0-6)
Basics Russian language in alphabet, vocabulary, and grammar for communication, basic skills in listening, speaking, reading and writing.		
GE 1408	Thai Usage (Required course for Thai students from International Program)	3 (3-0-6)
Enhance listening and speaking skills in daily life, write and read Thai consonants, vowels, tones, and grammar and create accurate basic sentences		
GE 1409	Thai Language for Intercultural Communication (For Non-Thai Students)	3 (3-0-6)
Basic Thai language for communication across different culture, basic listening and speaking Thai in diverse context, Thai cultural and traditional background, ways of life, festivals and local culture in different parts of Thailand, Thai culture for competent intercultural relations		
GE 1410	Thai for Professional Communication (For Thai Students)	2 (2-0-4)
Communication skills in Thai language in listening, speaking, reading, and writing, active listening, comprehensive reading, analyze main idea and supporting details, write an article, project and meeting minute, public speaking, special occasion speeches.		
GE 1411	Thai Language for Multicultural Communication (For Non-Thai Students)	2 (2-0-4)
Thai language for basic communication in multicultural social setting, integrative culture perspective in listening and speaking on talk at work. Thai cultural and traditional patterns in each professional setting, Thai ways of life, Thai ceremony, and festivals.		

GE 1412	Introductory Thai Usage (For Thai Students from International Program)	2 (2-0-4)
Enhance listening and speaking skills in daily life, write and read Thai consonants, vowels, tones, and grammar and create accurate basic sentences.		
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
Basic communication skills in Korean language through learning primary conversation and phrases, basic grammar and sentence structure, some sociocultural aspects related to the Korean language. read and write simple phases.		
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
Understanding and learning Spanish pronunciation and accent, speaking and listening basic Spanish conversations, a useful range of vocabulary and basic grammatical structures, real life situation		
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
Mastering skills in telling stories and giving presentations in English to build confidence in communication		
GE 2102	Human Heritage and Globalization	3 (3-0-6)
Development of human society, rise and fall of civilizations, achievements and heritages of Western and Eastern civilizations since ancient times in order to understand their roots; globalization impacts on modern societies; cross-cultural society.		
GE 2103	Art of Reasoning	3 (3-0-6)
Fundamental analysis of logical elements and rational applications for daily life emphasizing on deductive and inductive methods of validity and fallacy.		
GE 2104	Thai Buddhism	3 (3-0-6)
General concepts of Buddhism, history of Buddhism in Thailand and influences of Buddhism towards Thai Buddhists' way of life.		
GE 2105	Introduction to World Religion	3 (3-0-6)
World religions, both Western and Eastern religions Judaism, Christianity, Islam, Hindu traditions, Sikhism, and Buddhism, theories of religions, ethical theories, understanding cultural varieties and religious ways of life.		
GE 2107	Applied Philosophy in Social Sciences and Humanities	3 (3-0-6)
Applied philosophy, value of life and real-life applications in social sciences and humanities; including political philosophy, social philosophy, philosophy of language, philosophy of education, philosophy of religion, philosophy of mind, feminist philosophy, and moral philosophy.		
GE 2109	Artistic Creation	3 (3-0-6)
The key philosophical ideas and theories relating to communication and artistic creation aesthetics and rhetoric in the context of Greek philosophy, semiology, hermeneutics, structuralism, and other postmodern ideas.		
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
The development of human society, achievements, and heritages of Western and Eastern		

civilizations since ancient times in order to understand their roots; globalization impacts on modern societies; cross-cultural society. It will help human beings to be aware of researching and searching for information that connects the past and the present.

GE 2202	Ethics	3 (3-0-6)
Teachings of major world religions, the role of conscience, self-development in the moral arena, building self-esteem, self-knowledge, and good habits, distinguishing the right from the wrong, doing the right and refraining from the wrong, attaining a more fulfilling life. Civil right and duties.		

GE 2203	Art of Living	3 (3-0-6)
Self-exploration, understanding ways to improve self-esteem, analyzing real-life problems, conflict and stress, breaking bad habits, power of positive thinking, designing plans to live a happy life.		

GE 2205	Communication and Multicultural society	3 (3-0-6)
Communication skills, effective interaction with other people, human relationship in a multicultural society, interpersonal intelligence, skills in learning and living with others.		

GE 2206	Personality Development	3 (3-0-6)
Improvement of one's self-confidence and self-esteem, think positively towards themselves, how to make friends, international table manners, dressing up oneself to match one's personality, keeping healthy, applying makeup, public speaking, interpersonal relationship skills.		

GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
Knowledge and understanding of sports, exercise, health promotion and fitness, principle of sport spectating, selection of sport activities, nutrition, self-care for good health and wellness development.		

GE 2208	Thai Politics and Government	3 (3-0-6)
Thai politics from monarchy to democracy, political reforms, development of democracy, involvement of civil and private sectors, election, political ethics		

GE 2209	The Power of Personality in Leadership	3 (3-0-6)
Improvement of one's self-confidence and self-esteem, think positively towards themselves. effective communication skills, art of storytelling, team working, leadership characteristics, interpersonal relationship skills, business etiquette required in profession and body language for confident leadership		

GE 2210	Love and Art of Living	3 (3-0-6)
Self-exploration, understanding ways to improve self-esteem analyzing the real-life problems, conflicts and stress, breaking the bad habits, power of growth mindset, designing thinking of their future life a happy life, Manage time effectively, Win and influence others and key habits to build relationship with others		

GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
Thai food is a reflection of cultural identity, social norms, and historical traditions, a fusion of Southeast Asian and Chinese food, the connection between culture food and society, Thai culture of cooking and eating, Thai dining etiquette, the flavor balance of Thai dish,		

Thai street food, regional delicacies.

GE 2213 Thai Market Vendor Exposure 3 (3-0-6)
Characteristics of Thai market vendor and their salient features, types of Thai market vendor, an influence of Thai culture on market vendor, Thai lifestyles vendor in market, keys benefit of market vendor to Thai society, idea for market vendor, Thai market vendor as a community affair.

GE 2301 Lifestyles in Dynamic World 3 (3-0-6)
Relationship between lifestyle choices and impacts of these choices on individual's health and the global environment, scientific approaches to nutrition, supplements, sleep, rest, exercise, and sexuality. Evaluation of individual healthy and eco- friendly lifestyles.

GE 2302 Climate Change and Human Life 3 (3-0-6)
Scientific foundation of global climate change, linkages between global climate change and potential impacts to human health and ways of life, application of mitigation and adaptation strategies to minimize the impacts of climate change on health.

GE 2303 Building Brilliant Brain 3 (3-0-6)
Scientific knowledge about daily living factors promoting brilliant brain function, applying neuroscience research findings to brain healthy nutrition, fitness, attention adjustment and memory to improve individual's brain performance, creativity and success in everyday learning.

GE 2304 Lifestyles and Sustainability in Dynamic World 3 (3-0-6)
Interrelationships between lifestyle choices and impacts of these choices on individual's wellbeing, society, and the global environment, scientific approach, analysis, and evaluation power of choices on lifestyles, anticipation, and transition efforts of global sustainability.

GE 3401 Public Speaking in Thai 3 (3-0-6)
Basic knowledge and skills in communication in Thai, principles and techniques of effective speaking, practical experience, and development of speakers' personality

GL 1101 Elements of Spoken Language 3 (3-0-6)
Essential elements of Spoken language; concepts and principles of phonetics; use of International Phonetic Association (IPA) system of phonetic transcription and practice in speech sound production and identification, analysis of problems of pronunciations.

GL 2101 Introduction to Language 3 (3-0-6)
Prerequisite : GL1101 Elements of Spoken Language
Characteristics, functions, concepts and principles of the human language, four major structural components of language and the relationship to one another; language change, language acquisition and the relationship of language and society.

GL 2102 Communication in International Business 3 (3-0-6)
Prerequisite : ELE 1002 Communicative English II
Exploration of effective communication strategies in the global business landscape and cross cultural communication, negotiation, and presentation skills essential for international success.

GL 3102	Introduction to Linguistics	3 (3-0-6)
Prerequisite:	BG 2000 English III	
Characteristics, functions, concepts and principles of the human language, four major structural components of language and the relationship to one another; language change, language acquisition and the relationship of language and society.		
GL 3104	Language, Culture and Society	3 (3-0-6)
Prerequisite:	GL 2101 Introduction to Language	
Relationships between language, culture and society in an international environment; issues related to language, society and culture; language variations in different contexts, World English, cross-cultural communication.		
GL 3106	Trends in Business English	3 (3-0-6)
Prerequisite:	BG 2000 English III	
Current trends in business English and related topics, case studies, workshops, panel discussions in the era of globalization and digitalization.		
GS 2106	Logical Thinking and Application	3 (3-0-6)
Analytical study of complicate logic through symbolization, justification of argumentative validity via contingency of statements, and consistency of premises in Logical Formulae.		
IAD 1111	Technical Drawing	3 (2-2-5)
A fundamental drawing course introducing the knowledge, skills to demonstrate technical drawing and graphical communication commonly used in architecture and design profession from line weights in drawing to orthographic projection, perspective projection, Oblique Projection: Plans, Elevations and Sections via both pencil sketch and computer application drawing.		
IAD 1112	Design Fundamentals	3 (2-2-5)
Introduction to design of enclosure, space and form conceived by interior design components, spatial relationships, and ordering systems; anthropometric movements that impact to interior living functions, furniture scale, and area requirements.		
IAD 1221	Basic Building Construction	3 (2-2-5)
Basic knowledge on timber skeleton constructions, reinforce concrete and masonry construction for small residential building including principles of structural system, building components such as columns, floor, staircase, and basic construction materials through studio works in model making and drawings via both pencil sketch and computer application drawing.		
IAD 1231	Computer – Aided Design	3 (2-2-5)
Computer as a tool in assisting design process, basic drafting, construction drawing, elementary application in two- dimension drawing, three- dimensional modeling and graphic presentation.		
IAd 1241	Interior Design I	3 (2-2-5)
Interior design principles and related theories to articulate optimal design for both aesthetics and functional purposes of human activities and behaviors for small residential projects.		

Principles and theories of interior architectural design that articulate optimal aesthetics and functionality for large luxury residential projects, addressing human activities and behaviors.

Basic concepts, theories, principles, and case studies of branding and marketing in interior design. Using the tools of brand and marketing to create identity and experience for interior design projects.

Influenced by consumer behavior and perception research, unlike brick-and-mortar retail, through the retailtainment strategy, to create an interior space that enhances and creates an overall ambiance and aesthetic to attract customers and facilitate a unique shopping experience.

Human spatial perception, ergonomics, behavior, and aesthetic factors through multi-dimensional study including physics aspects to archive the appropriate pleasure, safety, and comfort of users in interior design environments.

Systematic approach in variety of material selections and factors including interior design elements, colors, material and applications, ecological material, and new innovative material. Experiment in the alternated creative possibility in composing variety of color schemes, material for interior design presentation.

Integrate brand character, emphasis on practical communication through implementing design concept with various functions, and an exploration of more complex of the Hospitality (Food & Beverage) programming, encompassing both functional aspects and user' needs.

Understand how to establish small businesses and create specific areas with distinct purposes for multiple users as well as more complex commercial and hospitality through the brand identity research, facilities, necessary element, social – community, context, human perception, and behavior in public spaces, materials and fabrications, environmental graphic design, under adherence to relevant building code regulations.

Historical overview and evolution of the Western architecture and interior design, furniture, and related decorative arts from Antiquity to Postmodernism encompassing socio-cultural issues, technological development, and intentions of architects, designers and patrons through the array of notable works that laid the foundation for the contemporary interior architectural practice.

IAD 2222	Lighting Design	3 (2-2-5)

Lighting design and its history, lighting components, aesthetic sense, health effects of light, properties of light, light technology, codes and law, reading and using light catalogs, practical aspects of lighting design lighting application and concern throughout various kinds of experimental project.

IAD 2241	Interior Design VI	3 (2-2-5)

Prerequisite: IAD 1241 Interior Design I

For city dwellers on a well – being lifestyle focused on passive and active activities, including spa, fitness centers, gyms, and approach on co- branding criteria to expand and incorporate marketing knowledge through the interior space.

IAD 2242	Interior Design VII	3 (2-2-5)

Prerequisite: IAD 1241 Interior Design I

For the necessary knowledge and skills to excel in the field of office design covering all the contents such as project programming including cooperate brand and marketing mix, space planning, furniture selection, technology integration, material selection.

IAD 2341	Advance Interior Architecture Design I	6 (2-8-8)

An in-depth interior architectural design course offering a practical framework that incorporates hybrid programming and building complexes to address various issues and ideas. This includes the creative transformation into well-being lifestyles, as well as critical analysis of branding, marketing, universal design, aesthetics, and site context.

IAD 3121	Interior Construction and Technical Drawing	3 (2-2-5)

Design principles in the construction of interior design through fundamental structural elements, working drawing techniques, symbols, construction terminology and definitions, and material use.

IAD 3232	Recreation Design for Personal Development	3 (0-6-3)

Design environment topics or events that are relate to society including, interior design, fine arts, furniture design, lighting design, design related business management, entrepreneurship in interior design business and other related field,. The approach will be topics analysis in specialized area with the faculty members from university, other public or private universities, representatives from design enterprises, or private sectors.

IAD 3233	Design Research and Marketing Study	3 (3-0-6)

Essential knowledge in how to conduct design based research that yields balancing results in interior design innovation, function, and aesthetics through understanding of how to collect data, social movement, advance in technology, site analysis, business market and design theories and principles.

IAD 3234	Professional Ethics and Management for Interior Design	3 (3-0-6)

Ethical conduct professional interior design, client's brief, service offered, design team, proposal for interior design project including, preparation of documents, written format, categories and contents scope of design works, scope of design services, estimated budget, work schedule forecast, determined design fees and contract types, contract documents, tender process, site inspection, project management, professional license and code of conduct.

- IAD 3331 Internship for Interior Design 2 (200 Hrs.)
Ethics and proper characters in workplace. The 200 working hours in professional training at interior design firm or related field under instructor and stakeholder visualization and evaluation to expose students to professional experiences in the real sector of interior design.
- IAD 4150 House Design by Interior Designer 3 (2-2-5)
A tailor-made design in compact simple house cope with conceptualize and design form to design functionality fabulous house.
- IAD 4151 Senior Project in Interior Design 6 (0-10-8)
Prerequisite: IAD 3233 Design Research and Marketing Study
Advance cognitive skills and design creativity integrating brand establishment, research, and interior design. Thai transdisciplinary course of well-contemplated design project through analysis of design environment which includes emerging design trends, social-cultural context, and environmental concerns resulting in a viable business plan and design schematics for a complex prototype interior design project of appropriate evaluation processes of IAD 4151 Senior Project in Interior Design are including pre- design programming, conceptual design, preliminary design, design development, and final presentation.
- IAD 4152 Artist Studio (Sculpture) 3 (2-2-5)
An introduction and practical experience in developing hands- on experimentation with differing approaches to three- dimensional form, explore distinguishable visual art's inherent use of space and reliance on an enormous range of materials such as clay, cardboard, wire, Styrofoam, paper-mache.
- IAD 4153 Artist Studio (Paper Technique) 3 (2-2-5)
Essential methods of paper technique, focusing on theories and skills related to working with flexible and easily foldable materials, by utilizing simple tools to create pleats, and cuts to craft a wide range of three-dimensional shapes, from the simplest to the most intricate ones.
- IAD 4154 Artist Studio (Flower Arrangement) 3 (2-2-5)
An exploration of space in design through an aromatic atmosphere, concentrate on the study of flower arrangement, emphasizes harmony, balance, and simplicity, establish a sense of serenity and tranquility in the environment with mindfulness and attentiveness, meditative approach.
- IAD 4155 Digital Design Studio 3 (2-25)
The combination of the art of interior design and the elements of scenography, to create spaces that are both functional and visually appealing by various aspects such as lighting, color schemes, furniture, décor, and spatial layout to achieve the desired atmosphere from digital technology.
- IAD 4156 Advance Lighting Design 3 (2-2-5)
Theoretical lighting, color, and illumination for interior design, practical functions, aesthetic sense, technical detailed drawing for lighting design session which is needed to be combined into interior design works, lighting design in different interior project scale and type, professional presentation technique for the lighting design package. Site excursion and

seminar are also provided.

IAD 4158 Advanced Computer – Aided Design 3 (2-2-5)
Advanced study of computer- aided design including all necessary update software to enhance the creative thinking of interior design students, interior space for exploration, methodologies: context, narrative, computation, and interactivity.

IAD 4159 Decorative Art 3 (2-2-5)
Variety of decorative art related to interior design that has emerged throughout the history, perception of arts with aesthetic appreciation, conceptual idea of imaginative interpretation, critical thinking of the artist's philosophy, inspiration, material, creative technique, and cultural influence to the art.

IAD 4160 Interactive Design 3 (2-2-5)
A seminar and workshop on interaction design, which is the study of systems and devices that a user can interact. The practice typically on embedding information and digital technology into various outputs. The discussion about human behaviors, social interactions, and the impact of digital media on built environments. A space for exploration, experimentation, and implementation pertain to development of learner interests.

IAD 4161 Furniture Design Production 3 (2-2-5)
Basic knowledge of furniture design and furniture production including, history and their implement culture, furniture component, ergonomics, design trends, conceptual and aesthetic approaches, form development process, occupation of existing tool and technique to produce practical furniture design, fabrication technology including, system, structure, and material selections in furniture, modular furniture.

IBE 1103 Business Laws for Entrepreneurs 3 (3-0-6)
Business laws for new age entrepreneurs who consider conducting business online. Begins with setting up a company, understanding legal issues concerning various types of business contracts, including tax liabilities incurred from business operation.

IBE 1122 Accounting for Entrepreneurs 3 (3-0-6)
This course will focus on understanding and interpreting financial accounting information on financial statements for Accounting and Taxation purposes. In addition, students will learn how to analyze financial statements and how financial information can be effectively used for planning, controlling, and making the intelligent decisions in business operation

IBE 3413 Data Preparation and Visualization 3 (3-0-6)
This course provides fundamental concepts and hands-on learning of data visualization and data storytelling. It covers practical issues in the creation, organization, dissemination and use of information in business and economics. Topics include locating and evaluating information such as literature and data; sampling design; questionnaire and survey design; database design and query; data cleaning; literature reviews; data visualization and presentation; professional presentation; and information ethics.

IE 1110 Engineering Materials 3 (3-0-6)
Relationship between structures, properties, production processes and applications of main groups of engineering materials: metals, polymers, ceramics and composites; phase equilibrium diagrams and their interpretation; mechanical properties; materials

degradation.

- IE 2101 Fundamentals of Manufacturing Processes 3 (3-0-6)
Prerequisite: IE 1110 Engineering Materials
Fundamental of theory and concept of manufacturing processes; casting; forming; machining; welding; 3D printing; laser cutting; CAD/CAM; material and manufacturing processes relationships; fundamental of manufacturing cost.
- IE 3100 Manufacturing Processes 3 (3-0-6)
Prerequisite: IE 1110 Engineering Materials
Theory and concept of manufacturing processes; casting; forming; machining; welding; 3D printing; laser cutting; CAD/CAM; material and manufacturing processes relationships; fundamental of manufacturing cost.
- IE 4101 Manufacturing and Information Technology 3 (3-0-6)
Prerequisite: Senior Standing
Basics of CAD/CAM; CAD modeling methods; Computer Aided Manufacturing, solid modeling; materials properties and fundamentals of Automation; Automation technology; Flexible manufacturing systems; knowledge based engineering; robotics technology; machine tools technology
- IE 4201 Engineering Management 3 (3-0-6)
Prerequisite: Completion of 90 credits with the consent of the Chairperson
Modern management principles; methods of increasing productivity; human relation; industrial safety; commercial laws; basic of engineering economy; finance; marketing; project management
- IE 4203 Engineering Economics 3 (3-0-6)
Prerequisite: Completion of 90 credits with the consent of the Chairperson
Methods of comparison, depreciation; evaluation of replacement; risk and uncertainty; estimating of income; tax consequences; processes of decision making for investment of challenging projects.
- IE 4410 Logistics 3 (3-0-6)
Prerequisite: Completion of 90 credits with the consent of the Chairperson
Concepts of logistics network design and configuration; planning and controlling of the flow of materials and inventory in the network; logistics network configuration; facility locations; distribution strategies, types of distribution systems and distribution channels; transportation, vehicle routing.
- IG 3200 Applied Gamification 3 (3-0-6)
Application of game like experiences in contexts outside of games. Gamification uses game elements such as narrative, challenges, puzzles, and collaborative play for fun and exciting business activities and social impact challenges to create engaging customer brand experiences.
- IG 3201 Creative Innovation 3 (3-0-6)
Innovation ecosystems, the nature of creativity and innovation, and the role of innovation loops that lead to the development of innovative platforms, the process, and tools of design thinking.

IG 3260-64	Selected Topics in Innovative Gamification and Content Management Concepts	3 (3-0-6)
An exploration and study of selected topics in innovative gamification and content management concepts. The topic will be announced semester by semester.		
IG 3270-74	Selected Topics in Innovative Gamification and Content Management Practices	3 (2-2-5)
An exploration and practice of selected topics in innovative gamification and content management practices. The topic will be announced semester by semester.		
IG 3280	E-sport Business Management	3 (3-0-6)
Application of business principles to build e-sport teams. This includes designing streaming strategies, partnerships, and fan engagement. Plan, manage, and promote e-sport events and tournaments.		
IG 3281	Content Creation for Game Streaming	3 (2-2-5)
Game streaming platform requirements, interaction with game stream, scheduling and consistency, production quality, and equipment. Develop the personal brand and content that attracts the audience, online community management.		
IG 3282	Introduction to Animation and Game	3 (3-0-6)
Basic principles of the game and its subsequent development including game mechanics, gameplay, and narrative player drive. This includes the technical and narrative developments of animated film.		
IG 4200	Innovative Gamification and Content Management Workshop	3 (2-2-5)
Prerequisite:	AD 3281 Micro Influencer Communication Strategy DM 4201 User Experience Design PR 3282 Personal Branding and Image Management ELE 2000 Academic English	
A workshop training in innovative gamification and content management under the supervision of the instructor.		
IME 1102	Philosophy of AI	2 (2-0-4)
Philosophical issues that emerge from the development of current and future of AI systems. Past and contemporary philosophical reflections on artificial intelligence to think critically about AI, ways of engaging with it, and moral obligations. AI and inequalities including societal consequences of the development of AI from its use in politics, social media, warfare or even the environment, to the ethical, moral and safety dilemmas.		
IME 1103	Overview of Data Science	1 (1-0-2)
Data science concepts and technologies including everyday data related issues, covering the data science supply chain from data collection, to processing, analysis, and visualization.		
IME 1104	Soft Power Culture	3 (3-0-6)
The concept of soft power, understanding of how soft power functions through cultural relations driven by non-state and city society actors. Examination of various case studies such as global events and tourism.		

- IME 1201 Computer Graphics Design 2 (1-2-3)
Foundation of Software Illustrator (Vector Graphic) and Photoshop (Raster Image) such as Photomontage, Basic image manipulation and retouching. Also learn how to manage Files Format, File Usage, to produce and present idea through Basic Layout to get appropriate design print and screen-based media.
- IME 1205 Design Thinking for Creative Innovation 3 (2-2-5)
Creative issues of the cultural, technological, and environmental influences of products/ services, research methodology, design research, current brand identities, organizational management, and factors in the creative industry.
- IME 1206 Design Fundamentals 2 (1-2-3)
A Basic knowledge and practical understanding of principle of design, such as Line, shape, texture, color/hue, value, saturation, size, space, continuation, proximity, direction, alignment, proportion, repetition, dimension, completion, symmetry, contrast, correspondence, hierarchy, balance, emphasis, unity, stylistic approaches, visual analysis, critical and design thinking, layout and design compositions, through hands-on experience in a variety of media.
- IME 1207 Digital Typeface and Typography 2 (1-2-3)
Principles of type and typesetting, history of typography, type anatomy and classification, characteristics of letterform, grid system, structure and type design hierarchy, font editing software.
- IME 2108 Consumer Insight and Experiential Marketing 2 (2-0-4)
Focus on social science theories that explain the behavior individuals, families, and groups acquire, consume and dispose of goods, services, ideas, brands, and experiences. Examine psychological, economic, communication, anthropological, and sociological perspectives on human action that provide insight into consumer behavior.
- IME 2110 Programming for Creative Experiences 2 (2-0-4)
Use LEGO Mind storms EV3 and Virtual LEGO EV3 for a structured sequence of programming activities in real-world project-based contexts. Learn patterns and structure not just for robotics but also programming and problem solving. Use program flow model, simple (wait for) sensor behaviors, and decision-making structures. Students build core programming and problem- solving skills that lead to more open-ended projects.
- IME 2112 Imagineering Research 3 (2-2-5)
Covers analytics methods and metrics to develop, execute, and evaluate communications. Design questionnaires and analyze survey results and evaluate customer behavior. Covers methods to evaluate media use including web analytics and social media metrics. Learn to use survey software and data analytics software.
- IME 2113 Digital Workflow 3 (2-2-5)
An exploration of several methods of managing resources on a digital content production, including management of time, budget, production crew, online resources such as social media platform, and business requirements in order to operate online media channels as an entrepreneur.

- IME 2114 Pitching Content 2 (2-0-4)
 Understanding of writing technique and apply it, drawing on your imagination and observation of film, TV productions, and other content. Explore the role of directors, producers, and companies and how they have different individual qualities to contribute towards the making of content.
- IME 2115 Digital Customer Journey Experiences 3 (2-2-5)
 Digital, social, and mobile marketing focuses on the tools, methodologies and programs used by companies to develop, justify, deploy, and measure their social and mobile marketing programs. Develop social marketing programs based on social monitoring, web analytics, social marketing systems based on consumer purchasing and post purchase behavior experiences.
- IME 2116 Marketing Communication Technology and Analytics 2 (2-0-4)
 Learn to program two statistical packages to use advanced methods that complement the statistical techniques begin with 20 essential commands and progress towards computer-intensive statistical methods such as simulation and advanced regression. Also learn introductory view of Bayesian statistical modelling, overview of statistical learning methods (machine learning or algorithms), and the ability to understand the use of these programs.
- IME 2209 Digital Layout 2 (1-2-3)
 Visual structure, design vocabulary and principles, typography, stylistic approaches, visual analysis, critical and design thinking, on-screen layout design, kinetic compositions.
- IME 2211 Creative Storytelling 3 (2-2-5)
 Prerequisite: CA 1102 Introduction to Creative Communication
 An understanding and practice in storytelling for creative communication. Learners will use idea generation techniques and inspirational sources to design storytelling creatively for communication.
- IME 2217 Gamification Concept Design in AR and VR 3 (2-2-5)
 Application of game elements and digital game design techniques to non-game problems such as business and social impact challenges. Art of engagement of using gamification design for creating intuitive and user-friendly experiences using mechanisms of gamification throughout the advance technologies of Virtual Reality, Augmented Reality, Mix-reality, and Metaverse.
- IME 2218 UI/UX Experiences and Narrative Space 3 (2-2-5)
 Design-centric approach to user interface and user experience design, skill-based instruction centered around a visual communication perspective. Study of the stages of UI/UX development process, information architecture, and compelling screen-based experiences for websites or applications. This includes understanding of user interface and user experience design in technology, including interactive systems, user capabilities, interface technology, design thinking process, user stories and scenarios, wireframes and storyboards, prototyping, interaction design, usability design and testing.
- IME 3119 Managing Innovative Technology 3 (2-2-5)
 Find, evaluate, and process innovative technologies for commercial value. Discover the systems and context behind open innovation, licensing, accessing markets and patent/IP

strategy.

IME 3220 AI Application for Creative Ideation 3 (2-2-5)
Generate creative ideas that are novel and useful for design creativity. Utilize current AI tools and practice design thinking methodologies that can be applied to design challenges.

IME 3121 Omni Channel Planning 3 (2-2-5)
Create effective media plans for both online and offline channels using analysis of data for insights. The study of media planning based on types of target audience, timing and media cost in buying efficiently, including strategies and assessment. Emphasize the development and execution of communications strategies and relationship building with numerous stakeholders using both traditional and contemporary communication channels including blogs, social media platforms and merging technologies.

IME 3222 Digital Editing and Effects 3 (2-2-5)
Basic understanding of Pre-Production, Production, Post-Production in film Production Management, Creative thinking design through group brainstorming to present interesting storytelling through film production by using Digital editing platform to manage basic creative production of movie.

IME 3223 Virtual Production 3 (2-2-5)
Remote production on the cinematography production, combine live-action on set shooting with the computer graphic elements and contribute it across the multiple location that can create and render out with digital environment in real-time.

IME 3124 Imagineering Project 3 (2-2-5)
Integration of knowledge, skills, and techniques in order to conduct research creative project proposal, management and to create plan & campaign for live event project pitching. Process of show directing in live events and performance, script analysis; conveying theme, concept & idea. Stage composition and blocking design, rehearsal process. Business networking that enables students to know and learn from others' experiences and to incubate them to be a successful entrepreneur with strong business network and partnership for growth and sustainability.

IME 3125 Optimization Methods for Entrepreneurship 3 (3-0-6)
Theory of algorithms and applications of optimization including data-driven modeling, theory and numerical algorithms for optimization with real variables with applications to marketing, project management, machine learning, and finance in order to achieve organizational goals. An internship program assigning students to train with professionals in the communication arts industry and related fields. Students are required to continuously work for at least 200 working hours and present the training results to the instructors.

IME 4227 Selected Topic in Media Studies 1 3 (2-2-5)
An exploration and study of selected topics in media concepts. The topic will be announced semester by semester.

IME 4228 Selected Topic in Media Studies 2 3 (2-2-5)
An exploration and study of selected topics in media concepts. The topic will be announced semester by semester.

IND 1101	Visual Design	3 (2-2-5)
Visual language, basic design elements, and design composition used in conveying desired messages of 2 dimensional and 3 dimensional designs with emphasis on actual application through a series of corresponding projects.		

IND 1111	Fundamentals for Design	3 (2-2-5)
Theory and architectural components and the basic design relationship between forms and function in order to fulfill the perfection of architectural design.		

IND 1112	Technical Drawing for Designer	3 (2-2-5)
A fundamental drawing course introducing the knowledge, skills to demonstrate technical drawing and graphical communication commonly used in architecture and design profession from line weights in drawing to orthographic projection, perspective projection, Oblique Projection: Plans, Elevations and Sections via both pencil sketch and computer application drawing.		

IND 1113	Artist Studio (Drawing)	3 (2-2-5)
Elementary concepts and techniques of freehand perspective sketch and rendering, training in perception of materials, form and spaces, various media and techniques of creation of artistic forms in light, shade and shadow, emphasizing upon conceptual development of personal skills.		

IND 1141	Home Stylist	3 (2-2-5)
Interior design principles and related theories to articulate optimal design for both aesthetics and functional purposes of human activities and behaviors for small residential.		

IND 1211	Human Factors for Interior Design	3 (3-0-6)
Interior design and furniture dimensions, ergonomics, and design trends, in collaboration with user-centered design philosophy. User's perception through multidimensional facets including physical, psychological, and social aspects in designing to achieve the appropriate health, safety, and comfort of users.		

IND 1231	Computer-Aided Design	3 (2-2-5)
Computer as a tool in assisting design process, basic drafting, construction drawings, elementary applications in two-dimension drawing, three-dimensional modeling and graphic presentation.		

IND 2111	Interior Design Theory and Practice	3 (3-2-5)
Significant design theories and concepts bridging with design methods and contribute to contemporary interior design process in order to provide a broad perspective of plausible applied design strategies.		

IND 1241	Interior Design Studio: Small Unit Commercial	4 (1-6-5)
Prerequisite:	IND 1141 Home Stylist	
Influence by consumer behavior and perception research, unlike brick-and-mortar retail, through the retailtainment strategy, to create an interior space that enhances and creates an overall ambiance and aesthetic to attract customers and facilitate a unique shopping experience.		

IND 1242 Interior Design Studio: Hospitality (Food & Beverage) 4 (1-6-5)
Integrate brand character, emphasis on practical communication through implementing design concepts with various functions, and an exploration of more complex of the Hospitality (Food & Beverage) programming, encompassing both functional aspects and users' needs.

IND 2121	Basic Building Construction	3 (2-2-5)
Basic knowledge on timber skeleton constructions, reinforce concrete and masonry construction for small residential building, including principles of structural system, building components such as columns, floor, staircase, and basic construction materials through studio works in model making and drawings via both pencil-sketch and computer application drawing.		

IND 2131	Branding and Marketing for Interior Design	3 (3-0-6)
Basic concepts, theories, principles, and case studies of branding and marketing in interior design. Using the tools of brand and marketing to create identity and experience for interior design projects.		

IND 2141	Interior Design Studio: Compact Hospitality	4 (1-6-5)
Understand how to establish small businesses and create specific areas with distinct purposes for multiple users as well as more complex commercial and hospitality through the brand identity research, facilities, necessary elements, social-community context, human perception and behavior in public spaces, materials and fabrications, environmental graphic design, under adherence to relevant building code regulations.		

IND 2142	Interior Design Studio: Recreation	4 (1-6-5)
For city dwellers on a well-being lifestyle focused on passive and active activities, including spa, fitness centers, gyms, an approach on co-branding criteria to expand and incorporate marketing knowledge through the interior space.		

IND 2221	Material & Applications for Interior Design	3 (2-2-5)
Systematic approach in variety of material selections and factors including interior design elements, colors, material and applications, ecological material, and new innovative material. Experiment in the alternated creative possibility in composing variety of color schemes, material for interior design presentation.		

IND 2222	Building Systems Study	3 (3-0-6)
Building systems related to interior design process to co-operate with the other parties in the design team for the project efficiency, such as structure system, mechanical system, electrical system, sanitary system, air conditioning system, security control, audio visual system, communication system, fire protection system, and building codes.		

IND 2241	Interior Design Studio: Workplace	4 (1-6-5)
For the necessary knowledge and skills to excel in the field of office design covering all the contents such as project programming including cooperate brand and marketing mix, space planning, furniture selection, technology integration, material selection with effective communication and presentation.		

- IND 2242 Interior Design Studio: Mix-Used 4 (1-6-5)
An in-depth interior design offering the practical framework for urbanism from district and neighborhood to small scale of the block and building complex of various issues, and ideas, including the creative transformation of urban commune into well-being lifestyle, the critical analysis of branding, marketing, universal design, aesthetics, and site context.
- IND 3111 History of Western Architecture and Design 3 (3-0-6)
A comprehensive survey of art, design, and architecture from antiquity to the postmodern era; contextual influences and key concepts that have shaped artistic development; Western aesthetics, styles, and cultural influences, exploring the creative expression throughout history.
- IND 3121 Interior Construction & Technical Drawing 3 (2-2-5)
Anthropometry and design principles in the construction of interior design through fundamental structural elements, working drawing techniques, symbols, construction terminology and definitions, and material use.
- IND 3122 Lighting Design for Designer 3 (2-2-5)
Lighting design and its history, lighting components, aesthetic sense, health effects of light, properties of light, light technology, codes and law, reading and using light catalogs, practical aspects of lighting design, lighting application and concern throughout various kinds of experimental project.
- IND 3141 Interior Design Studio: Upscale Hospitality 6 (2-8-8)
A more complex commercial and hospitality project in interior design, with innovative and new experiences beyond the traditional norms as well as integrating advanced technology and understanding consumer behaviors, established and emerging theories, design principles, material fabrications, sustainable design, and interior design codes and constraints.
- IND 3231 Professional Ethics and Management for Design 3 (3-0-6)
Ethical conduct on professional interior design, client's brief, service offered, design team, proposal for interior design project including, preparation of documents, written format, categories and contents scope of design works, scope of design services, estimated budget, work schedule forecast, determined design fees and contract types, contract documents, tender process, site inspection, project management, professional license and code of conduct.
- IND 3232 Recreation Design for Personal Development 3 (0-6-3)
Design environmental topics or events that are relate to society including, interior design, fine arts, furniture design, lighting design, design-related business management, entrepreneurship in interior design business and other related fields. The approach will be topics analysis in specialized area with the faculty members from university, other public or private universities, representatives from design enterprises, or private sectors.
- IND 3233 Design Research and Marketing Study 3 (3-0-6)
Essential knowledge in how to conduct design-based research that yields balancing results in interior design innovation, function, and aesthetics through understanding of how to collect data, social movement, advance in technology, site analysis, business market and design theories and principles.

- IND 3234 Internship for Interior Design 2 (200 Hrs.)
Ethics and proper characters in workplace. The 200 working hours in professional training at interior design firm or related field under instructor and stakeholder visualization and evaluation to expose students to professional experiences in the real sector of interior design.
- IND 3456 House Design by Interior Designer 3 (2-2-5)
A tailor-made design in compact simple house cope with conceptualize and design form to design functionality fabulous house.
- IND 4111 Senior Project in Interior Design 6 (0-10-8)
Prerequisite: IND 3233 Design Research and Marketing Study
Advanced cognitive skills and design creativity integrating brand establishment, research, and interior design. This transdisciplinary course of well-contemplated design project through analyses of design environment which includes emerging design trends, social-cultural context, and environmental concerns resulting in a viable business plan and design schematics for a complex prototype interior design project of appropriate function, aesthetic, and scale. The design and evaluation processes of IND 4111 Senior Project in Interior Design are including pre-design programing, conceptual design, preliminary design, design development, and final presentation.
- IND 4112 Artist Studio (Sculpture) 3 (1-4-4)
An introduction and practical experience in developing hands-on experimentation with differing approaches to three-dimensional form, explore distinguishable visual art's inherent use of space and reliance on an enormous range of materials such as clay, cardboard, wire, Styrofoam, paper-Mache.
- IND 4113 Artist Studio (Paper Technique) 3 (2-2-5)
Essential methods of paper technique, focusing on theories and skills related to working with flexible and easily foldable materials, by utilizing simple tools to create pleats, and cuts to craft a wide range of three-dimensional shapes, from the simplest to the most intricate ones.
- IND 4114 Artist Studio (Flower Arrangement) 3 (2-2-5)
An exploration of space in design through an aromatic atmosphere, concentrate on the study of flower arrangement, emphasizes harmony, balance, and simplicity, establish a sense of serenity and tranquility in the environment with mindfulness and attentiveness, meditative approach.
- IND 4115 Digital Scenes Design Studio 3 (2-2-5)
The combination of the art of interior design and the storytelling elements of scenography, to create spaces that are both functional and visually appealing and explore different design styles from historical influences to contemporary trends to broaden their creative repertoire, various aspects such as lighting, color schemes, furniture, decor, and spatial layout to achieve the desired atmosphere.
- IND 4116 Journey of Western Art History Exploration 3 (3-0-6)
Journey through an enchanting odyssey through the captivating realm of Western art, design, and architecture; the cultural weaving of cities, the realm of artistic expressions, and the majestic structures that have left an indelible mark on history; the heritage of

Western aesthetics, and the evolution of creativity and spatial expression of heritage site to be reference in design.

IND 4117 Project Management 3 (3-0-6)
Project management skills and the process of organizing, fundamental of design business for entrepreneur and project management principles, risk awareness, design thinking process from conceptualization to implementation. Recent worldviews and movements, to develop students' creativity through design thinking and brainstorming to meet client's needs and project time frame.

IND 4306 Advanced Lighting Design 3 (2-2-5)
Theoretical lighting, color, and illumination for interior design, practical functions, aesthetic sense, technical detailed drawing for lighting design session which is needed to be combined into interior design works, lighting design in different interior project scale and type, professional presentation technique for the lighting design package. Site excursion and seminar are also provided.

IND 4307 Interaction Design 3 (2-2-5)
A seminar and workshop on interaction design, which is the study of systems and devices that a user can interact. The practice typically on embedding information and digital technology into various outputs. The discussion about human behaviors, social interactions, and the impact of digital media on built environments. A space for exploration, experimentation, and implementation pertain to development of learner interests.

IND 4402 Advanced Computer-Aided Design 3 (2-2-5)
Advanced study of computer-aided design including all necessary update software to enhance the creative thinking of interior design students, interior space for exploration, methodologies, design and technology include; context, narrative, computation, and interactivity.

IND 4407 Decorative Art 3 (2-2-5)
Variety of decorative art related to interior design that has emerged throughout the history, perception of arts with aesthetic appreciation, conceptual idea of imaginative interpretation, critical thinking of the artist's philosophy, inspiration, material, creative technique, and cultural influence to the art.

IND 4410 Furniture Design and Production 3 (2-2-5)
Basic knowledge of furniture design and furniture production including, history and their implement culture, furniture component, ergonomics, design trends, conceptual and aesthetic approaches, form development process, occupation of existing tool and technique to produce practical furniture design, fabrication technology including, system, structure, and material selections in furniture, modular furniture.

IND 4415 Creative Storytelling for Design 3 (2-2-5)
Combination of strategy, storytelling, creative content, and design that are impactful and effective for presentation. Plus, with various techniques in presentation, public speaking, and the use of audio-visual equipment in presentation to help students develop communication skills for design.

INX 1111	Tech Startup	2 (2-0-4)
Overview of tech startup, innovations, design thinking, ideation, persona, user interface design, UX/UI, lean startup, lean canvas, value propositions, UVP, agile manifesto, business modeling, entrepreneurship, marketing, pitching, growth hacking, angel investors, venture capital.		
INX 1201	AI for Business	2 (2-0-4)
Fundamental concepts of artificial intelligence and its applications in modern business operations, from sales & marketing to customer support operations. Students learn how AI can be applied to real world business scenarios, AI tools and technologies in the market, and legal and social acceptance of AI technologies.		
INX 2101	Practical Data Science for Entrepreneurs	2 (2-0-4)
Comprehensive problem-solving mindset, principles, techniques and tools to deal with various facets of data science practices in the business world of entrepreneurs. Topics include data preparation and visualization, exploration, description and prediction required for knowledge extraction in both science and business domains.		
INX 2111	Application Design and Coding	2 (2-0-4)
A practical approach to application development and coding for beginners, focusing on the design and development of real-world software, using modern development methods and tools. Students learn about the architecture, the development process, and the actual hands-on implementation of web and mobile applications.		
INX 2121	Agile Methods	2 (2-0-4)
Agile concept and methodologies as applied in software engineering process and its significance in modern technology innovations. Students learn how agile is used to design and develop rapid prototypes and products that meet the changing needs of the customers.		
INX 2122	UI/UX Design and Prototyping	2 (2-0-4)
Overview of user interface and user experience design in technology, including interactive systems, user capabilities, interface technology, design thinking process, user stories and scenarios, wireframes and storyboards, prototyping, interaction design, usability design and testing.		
INX 2201	Business Intelligence for Strategic Planning	2 (2-0-4)
Fundamental concepts of business intelligence, and ways to produce high-level knowledge, or insights, from multiple sources of data, to support strategic business planning. Students learn how to determine the kind of data needed, and how to acquire and manipulate them, to allow business to obtain valuable insights for its strategic decisions.		
INX 4101	Software Engineering	3 (3-0-6)
Software life cycle, analysis of requirements, structured software design, development, implementation, testing, and maintenance of software, reusable software, documentation and software manuals, and software project management.		
INX 4102	IT Project Management	3 (3-0-6)
Overview of ICT system development methodologies in practice, including project planning, budgeting, prototyping, implementing, and monitoring; resource management, terms of reference, service level agreement, dispute resolution.		

- INX 4103 Web Application Development 3 (3-0-6)
Web application design and development, model view controller (VMC) framework, Hypertext Markup Language (HTML), dynamic HTML (DHTML), scripting language, such as VB Script, Jscript, etc., knowledge and skills required to develop web application using n-tiers architecture, designing, building, and deploying web application.
- INX 4104 iOS Application Development 3 (3-0-6)
Development fundamentals for handheld devices, mobile user experience and usability, designing and implementing applications efficiently under the restrictions of limited resources, programming development frameworks and life cycle on iOS Platform, iOS Software Development Kits (SDK), Xcode, development environment (IDE) and Objective-C programming language for iPhone/iPad, and deployment of application on iPhone/iPad.
- INX 4105 Android Application Development 3 (3-0-6)
Development fundamentals for handheld devices, mobile user experience and usability, designing and implementing applications efficiently under the restrictions of limited resources, programming development frameworks and life cycle on Android Platform, and deployment of application on Android devices.
- INX 4106 Internet of Things 3 (3-0-6)
Introduction to Internet, Internet of Things, technological trends leading toward IoT, embedded system and its interface, common hardware components of IoT devices, IoT devices' software and hardware interaction, IoT protocols, IoT and cloud service/computing.
- INX 4201 Data Mining 3 (3-0-6)
Fundamental concepts of data mining, widely used techniques/algorithms and tools, preprocessing, exploratory data analysis, classification, clustering, association analysis and region discovery.
- INX 4202 Machine Learning 3 (3-0-6)
Construction of computer programs that will automatically improve their performance through experience, primary approaches to machine learning, including inductive inference of decision trees, case-based learning, neural network learning, statistical learning methods, and Bayesian learning.
- INX 4203 Big Data Analytics 3 (3-0-6)
Foundational techniques and tools required for big data analytics, deployment of structured approach to big data analytics projects, visualization techniques and tools to analyze big data and create statistical models, usage of tools such as Hadoop, MapReduce, Spark, and Graph.
- INX 4204 Decision Support and Recommender Systems 3 (3-0-6)
Recommender systems concepts, classical techniques for building recommender systems such as collaborative based, content-based, knowledge-based and hybrid recommendation approaches, techniques and approaches used to evaluate the quality of the recommendations, guidelines on matching recommendation technologies and domains, recent developments and applications of recommender systems.

INX 4205	Intelligent System Development	3 (3-0-6)
Foundations of intelligent systems, intelligent agents, problem-solving by searching, stochastic searches, learning, genetic algorithms, and neural-networks.		
INX 4301	Sales and Distribution Management System	3 (3-0-6)
Introduction to Sales and Distribution Management System; fundamental processes in sales and distribution; logistic modules covering from sales forecast, sales promotion, price list, sales order, order management, inventory transactions related to sales, order delivery.		
INX 4302	Supply Chain Management System	3 (3-0-6)
Introduction to Supply Chain Management System, supply chain strategies, supply chain network design principles, planning and managing inventories, procurement and sourcing, innovative supply chain business models, supply chain performance.		
INX 4303	Finance and Accounting Management System	3 (3-0-6)
Introduction to Finance and Accounting Information System, the application of Accounting Information System (AIS) in businesses and organization, understanding of how AIS is used to record accounting transactions and how it facilitates business processes and transaction processing, hands-on experiences using accounting software in designing and configuring an accounting information system for small-to-medium sized businesses.		
INX 4304	Customer Relationship Management System	3 (3-0-6)
Introduction to Customer Relationship Management System, customer lifecycle management, customer lifetime value, processes and technologies for managing the relationships with potential and current customers and business partners, analytics in CRM, CRM data warehouse, CRM tools.		
INX 4305	FinTech and Blockchain Technology	3 (3-0-6)
Introduction to blockchain concept, how blockchain can help disrupting businesses, blockchain technological components, public and private blockchain, Bitcoin, coin mining, consensus protocols, blockchain security, cryptocurrencies, Initial Coin Offerings (ICOs), blockchain infrastructure and implementation, practical work on Ethereum and Hyperledger.		
INX 4400-4499	Selected Topics	3 (3-0-6)
Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements and is in accordance with the current changes in technology trends in that period.		
ITX 1007	Data Analytics for Entrepreneurs	3 (3-0-6)
Principles of Data Analytics and Data Science; Methodologies, tools, and techniques used to analyze and interpret data, for all data analytics' stages-including descriptive analytics; diagnostic analytics; predictive analytics; and prescriptive analytics, a practical cases and best practices of adoption.		
ITX 2004	UI/UX Design and Prototyping (For Non-Science Students)	3 (3-0-6)
Overview of interactive systems, user capabilities, interface technology, design thinking process, user stories and scenarios, wireframes and storyboards, prototyping, interaction design, usability design and testing.		

ITX 2005	Design Thinking (For Non-Science Students)	3 (3-0-6)
Overview of design process, problem interpretation, ideation, experimentation, solution discovery, design thinking approach to develop products, services, or solutions for complex problems; design thinking methodology, techniques, and supporting tools.		
ITX 2007	Data Science	3 (3-0-6)
Comprehensive problem-solving mindset, principles, techniques and tools to deal with various facets of data science practices including data preparation and visualization, exploration, description and prediction required for knowledge extraction in both science and business domains.		
ITX 2009	Presentation and Data Visualization Techniques	3 (3-0-6)
Introduction to the principles and techniques for data visualization, design principles for charts and graphs, common tools for data visualization, visual presentation methods and techniques that increase the understanding of complex data and models, identification of patterns, trends, and differences from data sets across categories, space, and time, practical uses of multimedia for presenting and conveying information.		
ITX 2011	Mathematical Foundations for Informatics	3 (3-0-6)
Principles of Statistics, including probability theory/distribution, inferential statistics, and analysis of variance. Linear algebra such as vector spaces in n-space, inner product, norm and distance, orthogonal vector, vector product, Orthogonal functions, and Fourier series, including various techniques in multivariate data analysis such as multiple regression analysis, discriminant analysis, logistic regression analysis, principal component analysis, factor analysis, and cluster analysis.		
ITX 3002	Introduction to Information Technology	3 (3-0-6)
Components of IT systems, its usage and applications, computer hardware and software and its operations, communication systems and computer networks basic, applications of current technology, emerging IT-related technologies.		
ITX 3003	Business Systems	3 (3-0-6)
Prerequisite:	ITX 3002 Introduction to Information Technology	
Business systems and their interrelationships including finance, accounting, sales, marketing, human resources, law and operations, inputs and outputs of information systems, potential for integration of the systems, and information systems security.		
ITX 3004	Information Systems Analysis and Design	3 (3-0-6)
Prerequisite:	CSX 3006 Database Systems or ITX 3006 Database Management Systems	
The information system development life cycle, methodologies in information system analysis and design, tools and techniques used in information system analyze and design.		
ITX 3006	Database Management Systems	3 (3-0-6)
Data structures, principles of database, database system, database management system, application of database in information systems.		
ITX 3007	Software Engineering	3 (3-0-6)
Software life cycle, analysis of requirements, structured software design, development, implementation, testing, and maintenance of software, reusable software, documentation		

and software manuals, and software project management.

ITX 3008	IT Project Management	3 (3-0-6)
Prerequisite:	ITX 3007 Software Engineering	
Project planning, budgeting, prototyping, implementing, and monitoring; resource management, terms of reference, service level agreement, dispute resolution, ICT system development methodologies in practice.		
ITX 3009	Senior Project I	3 (0-9-0)
Specific project which requires students to propose a project proposal, analyze the problem, define the solution and design the system by applying the various information technology concept or informatics approach. The advisor whom the students select will guide them throughout the project development. The students must give presentation which includes oral examination.		
ITX 3010	Senior Project II	3 (0-9-0)
Prerequisite:	ITX 3009 Senior Project I or approved by the Dean	
Implementation of the project proposed and approved in senior project 1. The advisor whom the students select will guide them throughout the project development. The students must give a presentation, which includes an oral examination.		
ITX 4103	Requirement Engineering	3 (3-0-6)
Prerequisite:	ITX 3004 System Analysis and Design	
Concepts and techniques needed in the eliciting, analyzing, documenting, validating, and managing requirements for an information system that will fit into a broader system development process.		
ITX 4104	Software Testing	3 (3-0-6)
Prerequisite:	ITX 3007 Software Engineering	
Detailed activities involved in testing a software, different approaches in testing various components of a software, appropriate testing methods for different problems, and utilization of testing reports effectively in order to improve quality of a software both during software development and after software implementation.		
ITX 4106	Enterprise Architectures	3 (3-0-6)
Prerequisite:	ITX 3003 Business Systems	
Enterprise Architecture basic elements, Enterprise Architecture Framework, Enterprise Architecture Domains, Architecture Development Method and Enterprise Continuum.		
ITX 4110	Enterprise System Integration	3 (3-0-6)
Prerequisite:	ITX 3003 Business Systems	
Introduction to the principles and methods of software architecture in an enterprise environment, with an emphasis on the design, management and integration of large-scale information and software systems, process of integrating different systems and software applications by examining current and emerging trends, strategies, techniques for developing systems integration solutions effectively, and techniques to enhance the alignment of information systems with business strategy, objectives and processes.		
ITX 4111	Software Architectures	3 (3-0-6)
Prerequisite:	ITX 3007 Software Engineering	
Fundamental of software architectures, software architectural design and process, business		

requirement gathering and understanding, software architecture patterns, tools for designing and evaluating software architectures, challenges and trends in software architecture discipline.

ITX 4112 Collaborative Applications for Informatics 3(3-0-6)

Prerequisite: CSX 3001 Fundamentals of Computer Programming

Collaborative applications Low Code No Code Platform – including Web application design and development, model view controller (VMC) framework, Hypertext Markup Language (HTML), dynamic HTML (DHTML), Extensible Markup Language (XML), JavaScript Object Notation (JSON), or other scripting languages, knowledge and skills required to develop web applications using n-tiers architecture, designing, building, and deploying a web application;

ITX 4113 Extended Reality Design and Development 3 (3-0-6)

Prerequisite: ITX 1007 Data Analytics for Entrepreneurs

Principles of Extended Reality (XR) – such as Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), technique, tools, platforms such as ARCore, ARKit, Unity; Design and develop skill in 3D modelling, animation and interaction design; Build and Deploy a reality application for various devices.

ITX 4180-4199 Selected Topic [in Software Engineering] 3 (3-0-6)

Prerequisite: Junior or senior students with the consent of the instructors

Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements and is in accordance with the current changes in software engineering and development in that period.

ITX 4202 Data Mining 3 (3-0-6)

Prerequisite: ITX 3006 Database Management Systems

Fundamental concepts of data mining; data mining methodologies; classification; association rules; clustering.

ITX 4205 Big Data Analytics 3 (3-0-6)

Prerequisite: ITX 2007 Data Science or

ITX 1007 Data Analytics for Entrepreneurs

Foundational techniques and tools required for big data analytics, deployment of structured approach to big data analytics projects, visualization techniques and tools to analyze big data and create statistical models, usage of tools such as Hadoop, MapReduce, Spark, and Graph.

ITX 4207 Decision Support and Recommender Systems 3 (3-0-6)

Prerequisites: CSX 3001 Fundamentals of Computer Programming and

CE 4304 Programming for Data Analytics

Recommender systems concepts, classical techniques for building recommender systems such as collaborative based, content-based, knowledge-based and hybrid recommendation approaches, techniques and approaches used to evaluate the quality of the recommendations, guidelines on matching recommendation technologies and domains, recent developments and applications of recommender systems.

ITX 4212	Predictive Analytics	3 (3-0-6)
Prerequisite:	ITX 2007 Data Science	
Predictive analytic, predictive techniques and tools, predictive modeling, model evaluation, model reasoning, suggestion, and adaptation.		
ITX 4213	Artificial Intelligence for Business	3 (3-0-6)
Prerequisite:	ITX 2007 Data Science	
Fundamental concepts of artificial intelligence and its applications in modern business operations, from sales and marketing to customer support operations, AI applications to real- world business scenarios, AI tools and technologies in the market, and legal and social acceptance of AI technologies.		
ITX 4214	Data Science Project Management	3 (3-0-6)
Prerequisite:	ITX 2007 Data Science OR ITX 1007 Data Analytics for Entrepreneurs	
Data science frameworks, knowledge discovery, cross-industry standard process, life cycle approach in project management, knowledge areas in project management: integration, cost, human resource, stakeholder management, scope, quality, communication, time, procurement, risk management, techniques and tools in data science project management.		
ITX 4215	Business Insights and Visualization	3 (3-0-6)
Prerequisite:	ITX 2007 Data Science OR ITX 1007 Data Analytics for Entrepreneurs	
Business insight and management strategy and decision, business data analysis, business intelligence, business data visualization, technology and tools in business data analysis and visualization, architecture of business insight visualization: data builder, designer, analytics, administrator and mobile.		
ITX 4216	Computer Vision	3 (3-0-6)
Prerequisites:	CSX 3001 Fundamentals of Computer Programming	
Fundamental problems and techniques in computer vision: image formation, camera image geometry, feature detection in images, edge/line detection, recovery of shape from images, forming image mosaics; video surveillance techniques; recognizing, classifying and tracking objects in images.		
ITX 4217	Natural Language Processing and Social Interactions	3 (3-0-6)
Prerequisites:	CSX 3001 Fundamentals of Computer Programming and CE 4304 Programming for Data Analytics	
Human language from a computational perspective, syntactic analysis, semantic interpretation, and discourse processing (both symbolic and statistical approaches), information extraction, natural language generation, and applications of NLP in social interactions.		
ITX 4218	AI Chatbot	3 (2-2-5)
Prerequisite:	ITX 1007 Data Analytics for Entrepreneurs	
Methodologies, techniques and tools of building AI Chatbot – including Conversational or Rule-based, Keyword Recognition-Based, and Machine/Deep Learning Chatbot; Design and develop conversational model; Design, build and deploy model to a suitable domain context.		

ITX 4219	Generative AI for Entrepreneurs	3 (2-2-5)
Prerequisite:	ITX 1007 Data Analytics for Entrepreneurs	
Fundamentals of generative AI, its various models such as Generative Adversarial Networks (GANs), Variational Auto-Encoder (VAEs), Transformers and contents creation such as text, image, audio, music; Innovative applications and Business use cases of adopting generative AI in different industries; Hands-on exercise with Generative AI Tools and Frameworks such as GPT, DALL, MidJourney, to design, train, and fine-tuning for specific business needs; Integrating generative AI with existing business system; Ethical considerations and responsible AI Usage		
ITX 4280-4299	Selected Topic [in Data Science and AI]	3 (3-0-6)
Prerequisite:	Junior or senior students with the consent of the instructors	
Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements and is in accordance with the current changes in Informatics and data science in that period.		
ITX 4403	Manufacturing Management System	3 (3-0-6)
Prerequisite:	ITX 3003 Business Systems	
Introduction to Manufacturing Management System, manufacturing processes, bill of materials (BOM), routing and work center, manufacturing resource planning (MRP), capacity planning, production scheduling, shop floor planning, work in process (WIP).		
ITX 4404	Supply Chain Management System	3 (3-0-6)
Prerequisite:	ITX 3003 Business Systems	
Introduction to Supply Chain Management System, supply chain strategies, supply chain network design principles, planning and managing inventories, procurement and sourcing, innovative supply chain business models, supply chain performance.		
ITX 4502	Tech Startup (For Non-Science Students)	3 (3-0-6)
Overview of tech startup, innovations, design thinking, ideation, persona, user interface design, UX/UI, lean startup, lean canvas, value propositions, UVP, agile manifesto, business modeling, entrepreneurship, marketing, pitching, growth hacking, angel investors, venture capital.		
ITX 4503	Information Systems Security	3 (3-0-6)
Prerequisite:	ITX 3002 Introduction to Information Technology	
Fundamentals of computer security including hardware security, software security, database security, computer networks and telecommunication security, physical protection, microcomputer security and viruses protection, cryptographic technology, disaster recovery and contingency planning, intrusion detection and other applications, legal and ethical issues in computer security.		
ITX 4504	Digital Marketing	3 (3-0-6)
Overview of digital marketing, affiliate marketing, digital marketing tools, social media marketing, search engine marketing, pay-per-click, search engine optimisation, branding, sentiment analysis, influencer marketing, website, inbound marketing, content marketing.		
ITX 4505	Digital Transformation	3 (3-0-6)
Prerequisite:	ITX 3002 Introduction to Information Technology	
Fundamental operations of businesses and industries, paradigms and management		

practices of digital-centric businesses, digital revolution, management disciplines for successful business transformation, digital technologies enabling development of new operational process, customer experience and business model, use of digital technologies for established organizations or new ventures.

ITX 4507 Information Retrieval and Search Engines 3 (3-0-6)

Prerequisite: CSX 3002 Object-Oriented Concepts and Programming

Principles of retrieval systems, dictionaries, indexing, various strategies and models for information retrieval, scoring and ranking, evaluation of information retrieval, web search

ITX 4508 Quantitative Research for Digital Business 3 (3-0-6)

Conducting quantitative research in business research including of defining research problems, questionnaire design, sampling methods, data gathering techniques, data analysis and reporting.

ITX 4509 Cybersecurity 3 (3-0-6)

Prerequisite: CSX 3005 Computer Networks

Overview of cybersecurity threats, different types of cyber-attacks, defense strategies to secure the infrastructure, devices, and networks of the organization.

ITX 4510 Data Policies and Governance 3 (3-0-6)

Prerequisite: ITX 2007 Data Science or

ITX 1007 Data Analytics for Entrepreneurs

Design, deploy and sustain an effective data governance, including data governance concept, its capabilities, data government, business case, data government development and deployment approaches, delivery framework and processes of engagement, strategy, architecture design, implementation, operation and changes.

ITX 4511 Internet of Behaviors 3 (3-0-6)

Approach for integrating IoT to consumer behavioral pattern including design of hardware components of IoT devices design, IoT devices' software and hardware interaction, IoT protocols and system infrastructure.

ITX 4512 Marketing Automation Systems 3 (3-0-6)

Prerequisite: ITX 2007 Data Science OR

ITX 1007 Data Analytics for Entrepreneurs

Marketing automation platforms including Customer Data Platform and Management (CDP&M), email marketing, Customer Relationship Management (CRM) integration, social media management, Search Engine Optimization (SEO), Chatbot, and related analytic tools.

ITX 4513 Social Media Analytics 3 (3-0-6)

Prerequisite: ITX 2007 Data Science OR

ITX 1007 Data Analytics for Entrepreneurs

Algorithms for Analyzing Online Social Networks, Fundamentals of Social Graph Theory. Fundamentals of Text Analysis and its Applications, Sentiment Classification, Information Extraction, Clustering, and Topic Modeling, Social Media Analytics Tools and Platforms.

ITX 4517 Software Configuration Management 3 (3-0-6)

Prerequisite: ITX 3007 Software Engineering

Issues in Software Configuration Management, Software Configuration Management

Process, Software Configuration Identification and Control Software Configuration Status Accounting and Auditing, Software Release Management and Delivery, Software Configuration Management Plan, Software Configuration Management Tools, Continuous Integration (CI), Continuous Delivery and Deployment (CD).

ITX 4518 Blockchain and Digital Currencies 3 (3-0-6)
Introduction to blockchain concept, business disruption with blockchain, blockchain technological components, public and private blockchain, Bitcoin, coin mining, consensus protocols, blockchain security, cryptocurrencies, Initial Coin Offerings (ICOs), blockchain infrastructure and implementation, practical work on Ethereum and Hyperledger Fabric.
Introduction to blockchain concept, business disruption with blockchain, blockchain technological components, public and private blockchain, Bitcoin, coin mining, consensus protocols, blockchain security, crypto currencies, Initial Coin Offerings (ICOs), blockchain infrastructure and implementation, practical work on Ethereum and Hyperledger Fabric.

ITX 4519 Internetworking Workshop 3 (3-0-6)
Models of the Internet and computer networks, IP addressing, Ethernet concepts, media, and operations, operations of routers and switches in a small network, simple LANs and internetworks implementation.

ITX 4521 Applied Informatics Industrial Training I 3 (0-9-6)
Prerequisite: Consent of the Chairperson or Dean
Engineering practice related to applied informatics and information technology in private sectors or government agencies. Students need to submit reports regarding their duty assigned to the responsible faculty.

ITX 4522 Applied Informatics Industrial Training II 3 (0-9-6)
Prerequisite: Consent of the Chairperson or Dean
Engineering practice related to applied informatics and information technology in private sectors or government agencies. Students need to submit reports regarding their duty assigned to the responsible faculty.

ITX 4523 Applied Informatics Industrial Training III 3 (0-9-6)
Prerequisite: Consent of the Chairperson or Dean
Engineering practice related to applied informatics and information technology in private sectors or government agencies. Students need to submit reports regarding their duty assigned to the responsible faculty.

ITX 4524 Applied Informatics Industrial Training IV 3 (0-9-6)
Prerequisite: Consent of the Chairperson or Dean
Engineering practice related to applied informatics and information technology in private sectors or government agencies. Students need to submit reports regarding their duty assigned to the responsible faculty.

ITX 4531 Cybersecurity Risk Management and Compliance 3 (3-0-6)
Fundamental principles of cybersecurity risk management and regulatory compliance; frameworks, strategies and tools used to identify, assess, and mitigate cybersecurity risks in organizations. Legal, ethical and regulatory landscape including compliance with industry standards.

ITX 4532	Ethical Hacking and Penetration Testing	3 (2-2-5)
Ethical hacking methodologies and penetration testing techniques including tools and practices.		
ITX 4533	Advanced Topics in Cybersecurity	3 (3-0-6)
Advanced topics in the field of cybersecurity		
ITX 4534	Special Problems in Cybersecurity	3 (3-0-6)
Topics of current interest within the field of cybersecurity.		
ITX 4900-4909	Selected Topic [in Innovative Marketing and Management Technology]	3 (3-0-6)
Prerequisite: Junior or senior students with the consent of the instructors		
Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements and is in accordance with the current changes in marketing technology in that period.		
ITX 4910-4919	Selected Topic [in Food and Agriculture Technology]	3 (3-0-6)
Prerequisite: Junior or senior students with the consent of the instructors		
Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements and is in accordance with the current changes in Food and Agriculture Technology in that period.		
ITX 4920-4929	Selected Topic [in Music Innovation]	3 (3-0-6)
Prerequisite: Junior or senior students with the consent of the instructors		
Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements and is in accordance with the current changes in music innovation technology in that period.		
ITX 4930-4939	Selected Topic [in Finance and Insurance Technologies]	3 (3-0-6)
Prerequisite: Junior or senior students with the consent of the instructors		
Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements and is in accordance with the current changes in Finance and Insurance Technologies in that period.		
ITX 4940-4949	Selected Topic [in Engineering]	3 (3-0-6)
Prerequisite: Junior or senior students with the consent of the instructors		
Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements and is in accordance with the current changes in Finance and Insurance Technologies in that period.		
JA 0721	Japanese for Beginners I	3 (3-0-6)
Japanese pronunciation, vocabulary and some basic sentence patterns focusing on the skills of listening and speaking in everyday Japanese language.		
JA 0722	Japanese for Beginners II	3 (3-0-6)
Prerequisite: JA 0721 Japanese for Beginners I or by the consent of the instructor		
Vocabulary, more basic sentence patterns to develop the skills of listening and speaking.		

JA 0723	Reading and Writing Japanese Scripts	3 (3-0-6)
Japanese scripts-Hiragana and Katakana, 50 basic kanji, greetings, and basic sentence patterns used in daily Japanese conversation.		
JA 1700	Introduction to Japanese	3 (3-0-6)
Basic of Japanese language, scripts, Japanese sound system, basic grammar, and listening and speaking.		
JA 1701	Japanese I	3 (3-0-6)
Prerequisite:	JA 1700 Introduction to Japanese	
Basic grammar, more vocabulary, kanji for daily use, and further development of listening and speaking.		
JA 2701	Japanese II	3 (3-0-6)
Prerequisite:	JA 1701 Japanese I	
Further practice in listening, speaking, grammatical structures and fundamental reading skills.		
JA 2702	Japanese III	3 (3-0-6)
Prerequisite:	JA 2701 Japanese II	
Further practice in listening, speaking, higher level of grammatical structures and fundamental reading and writing skills.		
JA 2703	Basic Reading and Writing I	3 (3-0-6)
Prerequisite:	JA 1701 Japanese I	
Principles of reading and writing, reading simple texts, types of sentences, and practice in writing topics of everyday life.		
JA 2704	Basic Reading and Writing II	3 (3-0-6)
Prerequisite:	JA 2703 Basic Reading and Writing I	
Reading and writing more complicated texts and topics.		
JIB 2705	Kanji Studies	3 (3-0-6)
Prerequisite:	JA 1701 Japanese I	
Kanji characters: history, types, dictionary usage, reading and writing's stroke order, the combination of Kanji characters, basic Kanji used in daily life.		
JIB3747	Oral Comprehension and Expression in Japanese	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III	
Demonstrating ideas and opinions with appropriate styles of Japanese in various social settings.		
JIB 3748	Intermediate Japanese Grammar I	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III	
Pre-Intermediate grammatical structures and vocabularies for reading and writing in complicated contexts.		
JIB 3749	Intermediate Japanese Grammar II	3 (3-0-6)
Prerequisite:	JIB 3748 Intermediate Japanese Grammar I	
Intermediate grammatical structures and more vocabularies for reading and writing more		

JIB 3750	Japanese in Business Communication	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III or JLPT N4 or by the consent of the instructor	
Equip with the language and cultural skills necessary for effective communication in a Japanese business context in speaking and writing, enhance the ability to engage in professional communication.		

JIB 3752	Japanese for Workplace Communication	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III or JLPT N4 or by the consent of the instructor	
Equip with essential language skills and cultural competence needed for effective communication in professional settings. Focus on practical language usage, including business etiquette, workplace vocabulary, and communication strategies such as meetings, presentations, emails, and negotiations.		

JIB 3754 JLPT N2 Exam Preparation 3 (3-0-6)
Prerequisite: JIB 3749 Intermediate Japanese Grammar II or by the consent of the instructor
Methods and techniques for preparation to JLPT exam level N2, master grammar, vocabulary, listening and reading comprehensions, mock exams for exam success.

JIB 3756 Japanese from audio visual media 3 (3-0-6)
Prerequisite: JA 2702 Japanese III or JLPT N4 or by the consent of the instructor
Using audiovisual media to enhance listening skill and practice Japanese pronunciation.

JIB 3758	Japanese Short Stories	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III or JLPT N4 or by the consent of the instructor	
Selected Japanese	short stories from renowned Japanese authors and the reflection of society and culture through stories.	

JIB 3759	Japanese in Digital Literacy	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III or JLPT N4 or by the consent of the instructor	
Introduction to essential digital skills, navigate the digital world with a focus on Japanese websites, applications, and communication platforms.		
JIB 3760	Business Japanese Internship	3 (0-9-3)
Prerequisite:	JIB 3750 Japanese in Business Communication or by the consent of the instructor	
Practical work experience in Business organizations for Business Japanese students.		
JA 3701	Intermediate Japanese Grammar	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III	
Intermediate grammatical structures and vocabularies for reading and writing in more complicated contexts.		
JA 3702	Business Japanese I	3 (3-0-6)
Prerequisites:	JA 2702 Japanese III	
JA2704 Basic Reading and Writing II		
Integrated skills of listening, speaking reading, and writing in business contexts.		
JA 3704	Oral Comprehension and Expression	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III	
Demonstrating ideas and opinions in various social situations with appropriate styles of Japanese.		
JA 3705	Japanese for Office Management	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III or by the consent of the instructor	
Skills and accuracy in listening, speaking, reading and writing for office management.		
JA 3721	Introduction to Japanese Linguistics	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III	
Vocal and consonantal systems of the Japanese language, special features of the language, phonetics, phonemics, sentence patterns and a complete grammatical analysis.		
JA 3722	Japanese Reading and Oral Report	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III	
Reading comprehension skills of various Japanese articles and summarizing through oral presentations.		
JA 3723	Introduction to Japanese Phonetics	3 (3-0-6)
Prerequisites:	JA 2702 Japanese III	
GL 1101 Elements of Spoken Language		
Accurate Japanese pronunciation, and Japanese phonological system and intensive practice on the articulation of various Japanese sounds.		
JA 3724	Aspects of Japan	3 (3-0-6)
Prerequisite:	JA 2701 Japanese II	
Japanese lifestyle, thought patterns, civilization, social and business trends in Japan.		
JA 3726	Japanese for Tourism	3 (3-0-6)
Prerequisite:	JA 2702 Japanese III or by the consent of the instructor	

Practice of Japanese language for tour management.

JA 3727 Japanese for Hotels 3 (3-0-6)
Prerequisite: JA 2702 Japanese III or by the consent of the instructor
Practice of Japanese language for hotel service and hospitality.

JA 3722 Japanese Reading and Oral Report 3 (3-0-6)
Prerequisite: JA 2702 Japanese III
Reading comprehension skills of various Japanese articles and summarizing through oral presentations.

JA 3728 Japanese for Airline Services 3 (3-0-6)
Prerequisite: JA 2702 Japanese III or by the consent of the instructor
Practice of Japanese language for airline service and hospitality.

JA 3729 Survey of Japanese Literature 3 (3-0-6)
Prerequisite: JA 2702 Japanese III or by the consent of the instructor
Survey of classical and modern Japanese literary works.

JA 4701 Reading in Business Japanese I 3 (3-0-6)
Prerequisite: JA 3702 Business Japanese I
Reading comprehension skills of various business-related Japanese articles.

JA 4702 Business Writing in Japanese I 3 (3-0-6)
Prerequisite: JA 3702 Business Japanese I
Practice of writing business-related documents.

JA 4703 Translation I: Japanese – Thai 3 (3-0-6)
Prerequisite: JA 3702 Business Japanese I
Methods and techniques of translation from Japanese into Thai.

JA 4704 Translation II: Thai – Japanese 3 (3-0-6)
Prerequisite: JA 3702 Business Japanese I
Methods and techniques of translation from Thai into Japanese.

JA 4721 Japanese Conversation and Discussion 3 (3-0-6)
 (Only for international students)
Prerequisite: JA 3704 Oral Comprehension and Expression
Practice of discussion skills on topics in various social situations.

JA 4722 Reading in Business Japanese II 3 (3-0-6)
Prerequisite: JA 4701 Reading in Business Japanese I
Advanced reading comprehension skills of various business-related Japanese articles.

JA 4723 Business Writing in Japanese II 3 (3-0-6)
Prerequisite: JA 4702 Business Writing in Japanese I Further practice of writing business-related documents.

JA 4724 Business Japanese II 3 (3-0-6)
Prerequisite: JA 3702 Business Japanese I
Advanced communication skills for various business interactions.

JA 4725	Translation in Business Japanese	3 (3-0-6)
Prerequisite:	JA 3702 Business Japanese I	
Methods and techniques of translation from Japanese into English and vice-versa in business contexts.		
JA 4726	Public Speaking in Japanese	3 (3-0-6)
Prerequisite:	JA 3704 Oral Comprehension and Expression	
Principles and skills of presentation in public.		
JA 4727	Seminar	3 (3-0-6)
Prerequisite:	By the consent of the instructor	
Discussion on interested topics in depth.		
LAW 1501	Business Laws for Entrepreneurs	3 (3-0-6)
Business laws for new age entrepreneurs who consider conducting business online. Begins with setting up a company, understanding legal issues concerning various types of business contracts, including tax liabilities incurred from business operation.		
LBE 1101	Juristic Acts and Essences of Contract Law	3 (3-0-6)
Principles of law related to juristic acts and contracts according to the Civil and Commercial Code. Nature and characteristics of juristic acts comparing to legal causes, classification of juristic acts, and validity of juristic acts. Nature and characteristics of a contract, formation, classification, effect, interpretation, and termination of a contract. Analysis of legal cases related to juristic acts and contract in commercial practice.		
LBE 1102	Tort, Management of Affairs without Mandate and Undue Enrichment	3 (3-0-6)
Principles of law related to legal causes, including tort (wrongful acts), management of affairs without mandate, and undue enrichment, according to the Civil and Commercial Code. Nature and definition of wrongful acts, liability and compensation for wrongful acts, nature, and definition of management of affairs without mandate, rights and liabilities of the manager and the principal, nature and definition of undue enrichment, and rights and liabilities arisen from undue enrichment. Liabilities caused by unsafe products and analysis of legal cases related to wrongful acts, management of affairs without mandate, and undue enrichment in commercial practice.		
LBE 1103	Property and Land Law	3 (3-0-6)
Principles of law related to property according to the Civil and Commercial Code. Classification of property, part of a thing, and property right/real right and personal right. Understanding Thai legal system and the gist of property and land laws, classification of land, types and basic knowledge of title documents, leasehold and freehold property in Thailand, land acquisition, rights and obligations of landowner, restrictions on land use, and the study of roles of government agency, including the Land Department, and of the Thai court in administering and enforcing laws and regulations related to property and land through practical case analysis.		
LBE 1104	Law on Obligations	3 (3-0-6)
Definition of law on obligations, types, sources, subjects, performance, and consequences of obligations according to the Civil and Commercial Code, liens, preferential rights arising from debt, plurality of creditors and debtors, transfer of claims, and extinction of		

obligations. Rights and duties of the creditors and debtors according to the Debt Collection Act, issuance of debt collection letter. Transfer of claims, factoring transaction, and set off in finance transaction as a part of strategic plan for financial management.

LBE 1105 Commercial Contracts for Entrepreneurs I 3 (3-0-6)

Prerequisite: LBE 1101 Juristic Acts and Essences of Contract Law

Principles of law related to sale contract, exchange, gift, hire of property, hire-purchase according to the Civil and Commercial Code as a tool for business operation. Their uses in commercial contracts and commercial practice.

LBE 2106 Commercial Contracts for Entrepreneurs II 3 (3-0-6)

Prerequisite: LBE 1105 Commercial Contracts for Entrepreneurs I

Principles of law related to hire of service, hire of work, loan, deposit, agency, brokerage, compromise, and carriage according to the Civil and Commercial Code as a tool for business operation. Their uses in commercial contracts and commercial practice.

LBE 2107 Constitutional Law and Human Rights 3 (3-0-6)

Fundamental principles and concepts related to constitutional law and human rights within the context of the legal system in Thailand such as sovereignty, the separation of powers, constitutionalism, the role of different branches of political institutes, the mechanisms for constitutional amendment, the protection of fundamental rights and freedoms guaranteed under the Constitution, including civil liberties, political rights, and socio-economic rights. The significance of international human rights norms and treaties in the Thai legal system, including the ratification and implementation of key international conventions as well as human rights cases decided by domestic and international courts. The relationship between the constitution and the protection of human rights, the national strategy, the national reform plan, and the national economic and social development plan. Corporations and Human Rights.

LBE 2108 Criminal Law for Business 3 (3-0-6)

Fundamental principles of Thai criminal law, focusing on its application and implications within the context of commercial activities, as well as comprehensive understanding of the criminal legal framework in Thailand as it relates to business operations. An overview of the Thai legal system, sources of law, court structure, and procedural aspects related to criminal proceedings. Analysis of offenses commonly encountered by businesses, such as fraud, embezzlement, bribery, corruption, money laundering, etc.

LBE 2201 Business Organization I: Startup Business 3 (3-0-6)

Forms of business organizations, including sole proprietorship, partnership, limited company, representative office, branch office, and regional office, as a choice of business investment/operation to start up business. General principles of law related to incorporation of business organization, organizational management, operation, and liquidation. Civil and criminal liabilities of directors and executives of juristic persons. Strategizing business structure in response to investment plan for profit maximization and domestic incentives.

LBE 2202 Business Organization II: Corporate Growth Strategy 2 (2-0-4)

Prerequisite: LBE 2201 Business Organization I: Startup Business

General topic on establishment of a public company, directors, shareholders, capital increase, capital decrease, payment of dividend, etc. Conversion of private limited company

to public limited company. Corporate due diligence and business review for the purpose of merger and acquisition (M&A) and joint venture. Expansion of business through merger and acquisition (M&A) and joint venture. Reviewing and understanding financial statement, including balance sheet, income statement, and cash flow statement, for the purpose of corporate acquisition. Simulation of M&A and conversion of private limited company to public limited company as a part of market expansion strategy.

LBE 2203 **Labour Law for Human Resource Management** **3 (3-0-6)**
Fundamental principles of labour law, including the rights and obligations of employers and employees, the formation and termination of employment contracts, the regulation of working conditions, wages, working hours, leave entitlements, workplace safety and health standards, and alien working management. The role of collective labour relations in the workplace, including the rights of employees to organize and bargain collectively, the formation and operation of labour unions, and the resolution of labour disputes. A combination of theoretical study, case analysis, and practical exercises of the complexities of labour relations and employment law, as well as corporate human rights due diligence. The impact of technological advancements, globalization, and changing labour market dynamics on the regulation of employment relationships and the protection of workers' rights and their implications for labour law and human resource management practices.

LBE 2204 **Taxation Law and Practice** **3 (3-0-6)**
Introduction to Thailand's tax system including personal income tax and corporate income tax. Analysis of Thailand's Revenue Code, rulings, and case law. The nature of taxable income, deductible expenses, tax credit, and tax refund. Tax computation, tax year and accounting period, and tax return.

LBE 2205 **Intellectual Property I: Innovation and Brand Protection** **3 (3-0-6)**
Evolution and concepts of intellectual property focusing on industrial property (i.e. patent and trademark). The protection of industrial property under international framework and Thai law. Importance and role of industrial property in business success. The nature of patent (including invention and design patent) and trademark. Acquisition and exploitation of patent and trademark rights to generate income from brands and inventions. Brand marketing and innovation generation.

LBE 3206 **Intellectual Property II: Copyrights and Commercialization** **3 (3-0-6)**
Prerequisite: **LBE 2205 Intellectual Property I: Innovation and Brand Protection**
Evolution and concepts of intellectual property focusing on copyright and neighboring rights. The protection of copyright and neighboring rights under international framework and Thai law. Their importance and role in business success in the digital age. The nature of copyright and neighboring rights. Acquisition and exploitation of copyright and neighboring rights to generate income from creations.

LBE 3207 **Law on Real Estate Business** **3 (3-0-6)**
Prerequisite: **LBE 1103 Property and Land Law**
Methods in real estate development for various types of real estate, various participants in the real estate development process in both public and private sectors, land selection, development process, including conceptual development, feasibility study, real estate cycles, market analysis, and business strategy and legal aspects of property law, land law,

land divisions, laws on real estate services, etc. Land and/or building due diligence, land division, land survey, construction, modification, demolition, repair and use of buildings, registration of rights and contracts in relation to land and or buildings, preparation of documents required for the applications.

LBE 3301 Law on Secured Transactions 2 (2-0-4)
Principles of law related to suretyship, mortgage, and pledge according to the Civil and Commercial Code as a tool to secure debt. Nature and characteristics of suretyship, formation, and termination of suretyship (or guarantee) contract, rights and liabilities of the surety and the creditor, nature and characteristics of mortgage, formation and termination of mortgage, rights and liabilities of mortgagor and mortgagee, nature and characteristic of pledge, formation and termination of pledge, rights and liabilities of pledge or and pledge. Analysis of legal cases related to suretyship, mortgage, and pledge in commercial practice.

LBE 3302 Negotiable Instruments: Law and Practice 2 (2-0-4)
Principles of law related to negotiable instruments according to the Civil and Commercial Code as a tool for business operation. This includes bills of exchange (B/E), promissory notes (P/N) and cheques. Nature and definition of cheque, issuance of cheque, and liabilities of the drawer and the banker. Nature and definition of B/E, issuance, and endorsement of B/E, guarantee payment (aval) and payment of B/E, liabilities arisen from B/E. Nature and definition of P/N, issuance and endorsement of P/N, guarantee payment (aval) and payment of P/N, and liabilities arisen from P/N. Usage of negotiable instruments in practice (e.g. acquisition of a current account in Thailand and usage of cheque).

LBE 3303 Securities Exchange Law and Trading 3 (3-0-6)
Prerequisites: LBE 2201 Business Organization I: Startup Business and
 LBE 2202 Business Organization II: Coporate Growth Strategy
The study of money market, capital market, company fundraising, issuance and offering of securities to the public, characteristics of securities, investor protection as well as the securities exchange, corporate governance, and regulations with respect thereto. Factors affecting investment, returns, and risks. The basic investment principles. Securities trading as well as applications and programs for investing. Simulation of stocks trading.

LBE 3304 Banking and Finance Law 2 (2-0-4)
Financial market transactions, including commercial banking, insurance, derivatives, and capital markets. Comprehensive understanding of the legal framework that governs financial transactions and learn how risk is assessed, managed, and transferred in the market. Exploring the differences of financial transactions in different regions and comparing legal bases including investment banking and compliance in banking business practice.

LBE 3305 Insolvency and Bankruptcy Law 3 (3-0-6)
Nature, objectives, history of bankruptcy law, comparison of civil case and bankruptcy cases, bankruptcy and business rehabilitation procedure, debt restructuring and debtor's asset management under the bankruptcy law. Due diligence of debtor in bankruptcy case.

LBE 3401 Public International Law Outlook on Business 3 (3-0-6)
International law and international community, relationship between domestic law and international law, globalization and extraterritorial legislation and enforcement,

international actors and roles of non-state actors, protection of home state to its nationals, state responsibility, sustainable development in international law, international environmental law, peaceful settlement of dispute, use of the seas and ocean, ASEAN Charter and ASEAN political-security community on its role to create economic stability in the region, ASEAN's role in international cooperation.

LBE 3402 Private International Law 3 (3-0-6)
Classification of private persons, laws related to foreigners' business and working, immigration law, private relationships across national borders, choice of laws between citizens of different countries, choice of court in international commercial litigation, recognition, and enforcement of foreign judgments.

LBE 3403 Law on International Trade and Investment 3 (3-0-6)
Fundamental principles of economics and their correlation with international economic law. The four pillars of international economic law including international trade law and investment. Significant legal provisions related to WTO, including GATT, GATS, TBT, SPS, DSU, and cross-border trade between nations. International customary investment law, the main principles of international investment law, and the recent trend of transnational investment. Investment dispute settlement mechanisms under BIT (ISDS) or institute systems (ICSID). Domestic legislation on investment as to promote FDI (foreign direct investment) and investment incentives.

LBE 3404 Tax Policy and Tax Planning for International 3 (3-0-6)
Trade and Investment
Prerequisite: LBE2204 Taxation Law and Practice
Basic provisions related to personal income tax and corporate income tax. Tax planning and forms of juristic entity and shareholding structure. The allocation of profits and losses in a partnership, corporation, M&A, and effective tax planning strategies. State tax policy and its impact on business environment and transnational trade and investment.

LBE 3501 Legal Research, Research Methodology, 3 (3-0-6)
and Data Analysis
The study of principles, meaning, and importance of legal research, type of legal research (quantitative, qualitative, and mixed research methods), research questioning, legal research design, legal research tools and methodology, using IT and digital tools to conduct legal research and to write academic works (i.e. academic article, essay, presentation), legal data analytic tools, process, and methods for decision-making in legal professions.

LBE 4405 Liberalization in Trade and Investment 2 (2-0-4)
and Economic Integration
Prerequisites: LBE 2201 Business Organization I: Startup Business and
LBE 2202 Business Organization II: Corporate Growth Strategy
Trade liberalization and economic integration between member states of WTO including custom unions and free trade area (e.g. via bilateral trade agreement or regional trade agreement). The rules of origin, tariff incentives, the reduction of trade barriers, free flow of goods and labour movement through recent proliferation in FTAs. The recent development of bilateral investment treaties as well as regional trade and investment agreements. Analysis of business incentives/benefits provided in different treaties for traders and investors (e.g. under ASEAN framework). Generating business plan using trade and investment incentives for cross-border trade and transnational investment.

- LBE 4406 Import, Export, and International Commercial 3 (3-0-6)
Transactions Law
- Prerequisite: LBE 3403 Law on International Trade and Investment
- International sale of goods contract, incoterms, international payments, international carriage of goods by air and sea, insurance related to carriage of goods, letter of credit, trust receipt, laws and regulations on import and export, customs formalities, customs clearance, privileges pertaining to import and export and international cooperation for free flow of goods including tax, excise, formalities, and other duties. Transfer of goods and multimodal transport.
- LBE 4407 Logistic and Laws 3 (3-0-6)
- Supply chain technology management, creation and application of technology, supply chain and logistics management theories, allocation of goods, prediction technique, inventory management, warehouse management, transportation of goods, selection of transportation and international transportation management system, analysis and transportation route management, logistics analysis and transport services, goods distribution operation, transportation linkages, operation and warehouse system, storage system. Practical usage of laws with supply chain and logistics management for entrepreneurs.
- LBE 4502 Business Contract Drafting and Negotiation 3 (3-0-6)
- Prerequisites: LBE 1101 Juristic Acts and Essences of Contract Law,
LBE 2105 Commercial Contracts for Entrepreneurs I and
LBE 2016 Commercial Contracts for Entrepreneurs II
- Importance and function of contract drafting in business, principles of business contract drafting, structure of business contract and its mind map, application of laws and transformation of business needs into clauses in a contract, business deal negotiation, review, and revision of contracts.
- LBE 4503 Civil and Criminal Dispute Resolution 2 (2-0-4)
- Prerequisite: LBE 2108 Criminal Law for Business
- Fundamentals of civil and criminal procedural law of Thailand. Court system, general overview of civil and criminal proceedings in Thailand, preparation of legal documents, including pleadings, complaints, answers, motions, and statements. A mock trial practice using case simulation.
- LBE 4504 International Trade and Investment Dispute 3 (3-0-6)
Settlement Mechanisms
- International Alternative Dispute Resolution (ADR) as a facilitating resolution of disputes that transcend national borders and involve parties from different jurisdictions for international business transactions and cross-border investments. International ADR methods, such as arbitration and mediation compared to traditional litigation. The processes fostering a conducive environment for international business and individuals engage in increasingly complex global transactions in international stage.
- LBE 4505 Medical Law and Healthcare Service 2 (2-0-4)
- The study of medical law and healthcare services, medical profession practice, regulations on medical practice and healthcare services, medical liability and related cases, and precautions in recognition of patients' rights. The development of medical and technological advances and their potential risks, medical professional conduct, medical ethics, and related regulations. Discussion on various topics related to medical and healthcare services,

including medical tourism, senior healthcare service, etc. and laws.

LBE 4506 Start-up Business Sandbox and Legal Compliance 1 (0-0-45)
A two-day workshop training organized to allow students to experience realistic startup as an entrepreneur to generate their own business plans and learn how to get their businesses complied with local regulations.

LBE 4601 Accounting Principle for Lawyers 2 (2-0-4)
Fundamental accounting principles, business assets appraisal, concepts regarding net asset value (NAV), in-depth understanding and analysis of financial statements, application of accounting principles in business planning, relationship between the practice of law and of accounting and their unification.

LBE 4602 Consumer Protection Law 2 (2-0-4)
Fundamental principles, scope, and features of the law on consumer protection, specifically the Consumer Protection Act B.E. 2522, legal measures and mechanisms for consumer protection, consumer rights and remedies, organizations relevant to consumer protection, duties and responsibilities of entrepreneurs toward consumers, specific consumer protection law in some aspects such as food and drugs, product liability, unfair contract terms, sales of goods and new forms of services, etc., international perspectives on consumer protection, and emerging issues and trends in consumer protection law.

LBE 4603 Negotiation and Mediation 2 (2-0-4)
A theoretical and practical component concerning mediation. Practical skills required in negotiations and mediations, and the theoretical context required for such skills. Analytical skills to adapt to various circumstances, especially in commercial conflicts.

LBE 4604 Family Law and Cross-National Marriage 2 (2-0-4)
Betrothal, marriage, relationship of husband and wife, property of husband and wife, validity of marriage, void of marriage, termination of marriage, divorce, rights and duties of parent and child, guardianship, adoption, maintenance, foreign marriage in Thailand and other related laws including the Protection of a Child Born by Medically Assisted Reproductive Technology Act B.E. 2015 and Gender Equality Act B.E. 2015.

LBE 4605 Succession Law and Family Asset Management 2 (2-0-4)
Principles of law related to inheritance according to the Civil and Commercial Code. The meaning of inheritance, statutory right of inheritance, devolution of estates, order of heirship, nature and characteristics of heirs entitled to the inheritance, and distribution of estates. Basic knowledge of will, nature and characteristics of a will, a testator, a legatee, will and its legal requirements and forms, basic principles on drafting a will and estate management. Integrating theoretical and practical management knowledge into asset management. Systematic management of family asset. Application of theories and techniques in management to solve family asset management problems using simulation.

LLB 1000 Fundamentals of the Law and Lawyering Skills 0 (2-0-4)
Thailand's political and administrative structure, Basic provisions of the constitution, rights, liberties, and duties of citizens, Definitions, characteristics, systems, kinds, and types of law, Key organizations and persons related to the enactment, application, and interpretation of law, Court systems, Classifications of cases, Litigation process and punishment, Basic skills of lawyers such as Issue-focused and key points summary,

Problem-solving, Negotiation and dispute resolutions, Legal writing, Communication, Presentation, and Teamwork, etc. Moral and ethics of lawyers, including personality and social etiquette.

LLB 1001 Analytical Thinking Skills and Legal Writing 0 (2-0-4)
Development

Development of cognitive skills particularly in thinking process for problem-solving, Analysis of elements, Analysis on relationships, and Analysis of organizational principles, in both legal studies and other situations that occur in daily life, in order to answer questions with correct, appropriate, and just legal reasons correspond to cases.

LLB 1101 Jurisprudence and Law for Everyday Life 3 (3-0-6)

Definition, development, concept, role, and importance of law, classification of law, legal methods, and fundamental concepts, interpretation of law and filling in the gaps of law, general principles of private law in the Civil and Commercial Code, such as those concerning persons, juristic acts, specific contract, property, land and law in everyday life.

LLB 1102 Legal History 2 (2-0-4)

National history since Sukhothai, Ayuthaya, Thonburi, and Rattanakosin Era in political, administrative, legal, economic, social, and cultural dimensions that relate to present situations, and become causes to develop the legal system to exercise the governance and the administration of the country in the future, comparative studies in significant principles and characteristics of major legal systems or schools of thought in the world, for instance, Common Law System, Civil Law System, and Historical School of Jurisprudence, etc. including causes and consequences of the Siamese Revolution in 1932.

LLB 1201 Juristic Acts and Contracts Law 3 (3-0-6)

The Civil and Commercial Code, Book 1, Title 4 on Juristic Acts, Title 5 on Periods of Time and Title 6 on Prescription and Book 2, Title 2 on Contracts.

LLB 1202 Property and Land Law 3 (3-0-6)

Principles of law relating to property according to the Civil and Commercial Code, Books 1 and 4 as well as land law according to the Land Act and other related Laws.

LLB 1301 Criminal Law I 3 (3-0-6)

Characteristics of criminal law, theories of criminal liability, scope of criminal law, attempt, principals and supporters, multiple offenses, recidivism, criminal prescription, criminal penalties, criminological and penological theories.

LLB 1401 Principles of Public Law, Public Finance Law,
and Public Economic Law 3 (3-0-6)

Introduction to law, definition, kinds and importance of public law, public finance law, and public economic law, Classification of public law and private law, Evolution of public law in international and Thai aspects, Theories of state, Forms of state, Forms of government, Sovereignty, Legal state principle, Public interest principle, Basic rights and liberties, Structure of the fiscal, public finance, and economy of Thailand, Relationship between the constitution, public finance, and economy, Law on state budget, Law on state fiscal and financial discipline, Public debts management, Public and private investment, and Public enterprises.

- LLB 1402 Constitution Law, Human Rights, and 3 (3-0-6)
 Political Institutions
 Prerequisite: have taken or currently studying LLB1401 Principles of Public Law
 History, evolution, enactment, and classifications of the Constitution, Organic law, Constitutionalism, Essential philosophies, principles and theories of the constitution, Theory of separation of powers, Judicial Review, Human rights principles, Rights and liberties of persons, Political institutions and other state organizations, and interesting constitutions in overseas.
- LLB 1501 Business Law (For Non-Law Students) 3 (3-0-6)
 Basic knowledge of business laws, the relation between laws and business, fundamental civil laws and criminal laws, civil laws on persons, properties and fundamental intellectual property, juristic acts, contracts, obligations, selected specific contracts which businesspersons should be aware of, introduction to the law of electronic commerce and introduction to the law of international trade.
- LLB 1502 Fundamentals of Tax Law (For Non-Law Students) 3 (3-0-6)
 Principles, theories, policies, and planning of taxation. Regulations and collection methods of taxes and duties as provided in the Taxation Code and other currently applicable statutes. For example, the Revenue Code in respect of Personal income tax, Juristic person income tax, Value added tax, including Specific business tax, etc.
- LLB 2001 Legal Document Translation 0 (2-0-4)
 Principles of translation, linguistic features involved in translation, differences between translation and interpretation, translation of legal documents including laws, pleadings, affidavits, procedural reports, case daily reports, wills, and contracts.
- LLB 2203 Law on Obligations 3 (3-0-6)
 Definition of law on obligations, types, subjects, performance and consequences of obligations according to the Civil and Commercial Code Book 2, Title 1, Chapters 1 and 2, Part 1, and preferential rights arising from debt, plurality of creditors and debtors, transfer of claims, and extinction of obligations according to the Civil and Commercial Code Book 2, Title 1, Chapter 2, Part 2-6, and Chapter 3, 4 and 5.
- LLB 2204 Law of Delict, Management of Affairs without 3 (3-0-6)
 Mandate, Undue Enrichment
 Torts law, Management of Affairs without Mandate, Undue Enrichment according to the Civil and Commercial Code, Book 2.
- LLB 2302 Criminal Law II 3 (3-0-6)
 Prerequisite: have taken LLB1301 Criminal Law I
 Criminal Code of law on specific offenses and petty offenses, for instance, offenses relating to the security of the kingdom, terrorism, public administration, public justice, religion, public order, public dangers, counterfeit and alteration, trade, sexuality, life and body, freedom and, reputation, and property as well as petty offenses.
- LLB 2501 Specific Contracts I 2 (2-0-4)
 Principles of law relating to sale, exchange, gifts, hire of property, and hire-purchase according to the Civil and Commercial Code Book 3.

- LLB 2502 Specific Contracts II 3 (3-0-6)
Principles of law relating to hire of work, loan, deposit, warehousing, agency, brokerage, compromise, gambling and betting, and carriage according to the Civil and Commercial Code, Book 3 Principles of law relating to insurance according to the Civil and Commercial Code, Book 3, and the law concerning loss and life insurances.
- LLB 2504 Negotiable Instruments and Current Account Law 2 (2-0-4)
Civil and Commercial Code, Book 3, Title 21 Negotiable instruments, and Title 19 current accounts, and law on the issuance of cheques.
- LLB 3001 Interpretation in Judicial Process 0 (2-0-4)
Kinds of interpretation, key features of interpretation in the judicial process, sources of legal provisions pertaining to interpretation, the application of English language in official affairs of courts and judicial processes, skills and potential development of translation, communication, and interpretation.
- LLB 3205 Family Law and Succession Law 3 (3-0-6)
Betrothal, marriage, relationship of husband and wife, property of husband and wife, validity of marriage, void of marriage, termination of marriage, divorce, rights and duties of parent and child, guardianship, adoption and maintenance. Estate and devolution of an estate, conditions and status of a person who shall be able to receive the estate, persons who entitled to inheritance and portions of the estate, representation for the purpose of receiving inheritance, cases relating to Buddhist monk, monastery, and the land, exclusion from succession, disinheritance, renunciation of an estate, loss of inheritance by prescription, preliminary of a will, characteristics of a will, a testator, a legatee, making will requirements and forms of wills, revocation and lapse of a will or clause in a will, nullity of a will or clause in a will, administrator of an estate, and funeral of the deceased.
- LLB 3403 Administrative Law 2 (2-0-4)
Prerequisite: have taken LLB1401 Principles of Public Law
General characteristics of administrative law, Sources of administrative law in various legal systems, Fundamental principles, application and interpretation of administrative law, Thailand's organization of public administration system, Relationship among political organizations, rights between public and private sectors and vice versa, Public service operation, Concession, Formation and legal status of juristic persons in public law, Theories concerning administrative acts, Administrative control, Law on administrative procedure and administrative contracts, Law on establishment of administrative courts and administrative courts procedure, and Law on tortious liability of officials.
- LLB 3505 Secured Transactions Law 2 (2-0-4)
Principles of law relating to suretyship, mortgage, and pledge according to the Civil and Commercial Code Book 3.
- LLB 3506 Laws on Business Organizations 3 (3-0-6)
Principles of law relating to organizational management, operation and liquidation of ordinary partnerships, registered partnerships, limited partnerships, limited companies, and public companies. Other forms of business organizations. Laws and regulations on shares. Civil and criminal liabilities of directors and executives of juristic persons.

LLB 3507	Bankruptcy Law and Rehabilitation	2 (2-0-4)
Nature, objectives, history of bankruptcy law, comparison of civil cases and bankruptcy cases, prosecution of bankruptcy cases, and business rehabilitation.		
LLB 3601	Civil Procedure Law	3 (3-0-6)
Civil litigation under the Civil Procedure Code B.E. 2477		
LLB 3602	Criminal Procedure Law	3 (3-0-6)
Criminal procedure according to the Criminal Procedure Code on authorities and duties of officials, scope of investigation, arrests, interrogation, detention, prosecution, trial, appeals, and execution of judgments.		
LLB 3603	Judicial Process, Court System and Constitution of Courts of Justice	1 (1-0-2)
History and evolution of international justice, arising out of justice process. Single and duals court systems, courts of Justice, Military Court, Administrative Court, Constitution Court, Court jurisdiction, judicial powers and quorum in trial, and adjudication for power and duty of courts.		
LLB 3604	Evidence Law	2 (2-0-4)
Legal principles on evidence in both general provisions and those appearing in the Civil Procedure Code and the Criminal Procedure Code.		
LLB 3701	Public International Law	2 (2-0-4)
History of international law, Theories of international law, Sources of international law, Relationship between international law and domestic law, Subjects of international law, State jurisdiction, State responsibility, Law of the sea, and International disputes settlement.		
LLB 3702	Private International Law	3 (3-0-6)
General natures of private international law, International private allocation, Law on nationality, Rights and legal status of foreigners, Rules of conflict of laws, International disputes settlement and court procedures in international civil matters.		
LLB 4001	Legal Document Translation	0 (2-0-4)
Principles of translation, linguistic features involved in translation, differences between translation and interpretation, translation of legal documents including laws, pleadings, affidavits, procedural reports, case daily reports, wills, and contracts.		
LLB 4002	Interpretation in the Justice Process	0 (2-0-4)
Kinds of interpretation, key features of interpretation in the judicial process, sources of legal provisions pertaining to interpretation, the application of English language in official affairs of courts and judicial processes, skills and potential development of translation, communication, and interpretation.		
LLB 4103	Fundamental Principles of Human Rights, Good Governance, Rule of Law and Ethics	2 (2-0-4)
Principles of Human Rights, roles and development of human rights in Thai society, concepts of human rights, government's development policies which affect human rights, ideas of the rule of law, moral, ethical, and societal responsibilities of lawyers, good		

governance, ethical issues in the globalization era, and guidance to improve morality and ethics.

LLB 4104	Philosophy of Law	2 (2-0-4)
Development of legal philosophies in various schools from past to present and root of problems of Law.		

LLB 4105	Juristic Methods	3 (3-0-6)
Prerequisites:	have taken LLB 1101 Jurisprudence and Law for Everyday Life and LLB 1401 Principles of Public Law, Public Finance Law, and Public Economic Law	

Principles of the application and interpretation of written law, analogy of law, the application of customary law and the application of "general principles of law" under section 4 of the Civil and Commercial Code, problem, application and interpretation of the criminal law, public law, Juristic act and contract law, selected practical problems as well as theoretical problems

LLB 4106	Major Legal Systems in the World	3 (3-0-6)
	Common law system, Civil law system, Socialist law system, and Religious and traditional law system.	
Prerequisite:	have taken all civil law courses in the Civil and Commercial Code Seminar on significant civil law topics, and analysis of significant judgements of the Supreme Court.	

LLB 4207	Advanced Civil Law	3 (3-0-6)
Major Legal families and legal systems in the world and their influences, History and evolution of civil and commercial law, Juristic methods, Significant theories and principles of civil and commercial law including advanced legal principles of juristic acts, contracts, obligations, torts and property. Comparative studies between Thai law and the origin countries.		

LLB 4303	Significant Problems in Criminal Law	3 (3-0-6)
Prerequisites:	have taken LLB1301 Criminal Law1 and LLB 2302Criminal Law 2	
Seminar on significant criminal law topics, and analysis of significant judgements of the Supreme Court.		

LLB 4304	Advanced Criminal Law	3 (3-0-6)
Theories relating to the structure of criminal offences in Civil Law countries and Common Law countries, analysis of problems and the evolution of the concepts and theories of criminal law and the changes in criminal law that have occurred to cope with social and economic circumstances, and various forms of money laundering related to the result of criminal operation.		

LLB 4404	Significant Problems in Public Law	3 (3-0-6)
Prerequisites:	have taken LLB1401 Principle of Public Law, LLB1402 Constitutional Law, and LLB 3404 Administrative Law	
Seminar on significant problems in economic, social, political, and administrative circumstances that relate to public law, and the design or development of public law to promote sustainable economic, social, political, and administrative development of		

Thailand.

- LLB 4405 Law Drafting and Legislative Process 3 (3-0-6)
Organs relating to Law Drafting in Thailand, Rules and Procedures relating to Law Drafting, Presentation of drafting law, and Legislative Process.
- LLB 4406 Natural Resources Law 3 (3-0-6)
Laws on petroleum, minerals, and forests.
- LLB 4407 Consumer Protection Law 3 (3-0-6)
Law with basic objectives to protect consumer's rights or benefits, Law on consumer protection, advantages and disadvantages of Thailand's consumer protection law, importance of legal measures for consumer's benefits protection.
- LLB 4408 Mass Communication and Social Media Law 3 (3-0-6)
Background, significance, and principles of law on monitoring of broadcasting, telecommunication, and online media, Transfer of technology, Accessibility of consumers to services, Control on telecommunication, broadcasting and online media business entrepreneurs, Consumer protection, Issues on fair competition among broadcasting, telecommunication, and online media businesses, authorities and functions of regulatory organizations. Theories, principles, concepts, policies and regulations concerning development and promotion of energy, preserve and control of energy, production, transportation and distribution standard in energy business dimension including renewable energy and petroleum.
- LLB 4410 Medical, Public Health, and Health Law 3 (3-0-6)
Law on medical, public health and wellness affairs, medical technologies and public health, medical profession practice and ethics, Medical Profession Act B.E. 2525 (1982), National Health Act B.E.2550(2007), and other related Acts, for instance, Tort Liability of the Officer Act B.E.2539(1996), Medical Council Regulations and Announcements, etc. also studying significant medical problems related to various legal issues.
- LLB 4411 Laws on Food and Drug 3 (3-0-6)
Legal principles relating to the standard of food and drug, process of licensing, controlling and regulating by authorized agencies, and problems arising from the law enforcement.
- LLB 4508 Tax Law and Law on Taxation in International Trade 3 (3-0-6)
and Investment
Law on tax in the revenue code, Background, Theoretical evolution and essential principles of law and practices, Taxes and duties in connection with international trade and investment in both Thai law and pertaining international legal principles, Problems surrounding international tax- evasion and countervailing measures.
- LLB 4509 International Business Transactions Law 2 (2-0-4)
Significant legal Principles relating to international trades and business operations, International Sale of Goods contracts, Incoterms, International payments, International carriage of goods by sea, and Maritime insurance.

LLB 4510	Principles of Business Contract Drafting	2 (2-0-4)
Prerequisites:	have taken LLB 1201 Juristic Acts and Contracts Law, LLB 2501 Specific Contracts 1, and LLB 2502 Specific Contracts 2	
Importance and function of contract drafting in business, principles of business contract drafting, structure of business contract and its mind map, application of laws and transformation of business needs into clauses in a contract, review and revision of contracts.		
LLB 4511	Investment Law	2 (2-0-4)
Importance of investment, Thai economic structure, investment policies and laws of developing countries, laws on foreign direct investment, laws relating to investment disputes resolution, international institutes or agreements relating to investment and other laws which have impacts on investment.		
LLB 4512	Intellectual Property Law	3 (3-0-6)
Nature of intellectual property, Intellectual Property rights protection under Thai and international law, developing countries' policy in drafting patent law.		
LLB 4513	Innovation and Technology	3 (3-0-6)
Prerequisite:	have taken LLB 4512 Intellectual Property Law	
A holistic view on the creation of innovation and technology, roles of innovation and technology and their importance in industries and business, entrepreneur and idea generation, intangible asset generation and commercialization of intellectual properties, emerging technology trends.		
LLB 4514	Intellectual Property Law and Practice	3 (3-0-6)
Prerequisite:	have taken LLB 4512 Intellectual Property Law	
Introduction to intellectual property management, value of intellectual property, intellectual property rights management, intellectual property appraisal, intellectual property and fundraising strategy, functions of intellectual property in different laws, intellectual property law in practice.		
LLB 4515	Seminar on Intellectual Property Law, Information Technology, and Entrepreneurship	3 (3-0-6)
Prerequisite:	have taken LLB 4512 Intellectual Property Law	
Correlation between information technology, intellectual property and entrepreneurship, discussion and analysis on substantial issues pertaining to intellectual property that are related to information technology and business operation, application of intellectual property law in new challenging contexts caused by emerging technology.		
LLB 4516	Supply Chain and Logistics Management Fundamentals	3 (3-0-6)
Supply chain technology management, creation and application of technology, supply chain and logistics management theories, allocation of goods, prediction technique, inventory management, warehouse management, transportation of goods, selection of transportation and international transportation management system, analysis and transportation route management, logistics analysis and transport services, goods distribution operation, multi-modal transports, transportation linkages, operation and warehouse system, storage system and materials handling by pallet management, boxes and small items distribution,		

ordering, operation analysis, warehouse management system, resource layout planning and warehouse development system.

LLB 4517 Custom Clearance and Tax in Logistics Management 3 (3-0-6)
Law on sales of goods and services, Domestic and international goods and services payment, Custom clearance pertaining to import and export goods according to the Customs Act and relevant law, Privileges and promoting measures in tax, excise, VAT, and other duties relevant to import and export of goods, including concerning law to the application of innovation and modern technology in the logistics management.

LLB 4518 Law on Transportation and Insurance in Logistics 3 (3-0-6)
Management
Law on land, water, air, railway transportation, and multimodal transportation, Law on goods and transportation insurance in both domestic and international logistics management.

LLB 4519 Seminar on Supply Chains Management, Logistics, 3 (3-0-6)
Transportation, and Warehouse
Seminar on significant legal issues and practice of public organizations, private sectors, and entrepreneurs in supply chain management, logistics, transportation, and warehouse at present time and in the future. Field trips to public and business organizations pertain to supply chain management, logistics, transportation, and warehouse in both domestic and international segments.

LLB 4520 Principles of Real Estate Business and 3 (3-0-6)
Legal Aspects of Real Estate Business
Overview of real estate business and professional practices, special terms, nature and description of real estate, various types of property, basic rights and interests in real estate, land- use controls, forms of ownership, various real estate fields of property management, development, investment, real estate finance, real estate appraisal, and laws on real estate business, such as land law, condominium law, zoning law, etc.

LLB 4521 Building Design and Construction Techniques 3 (3-0-6)
Basic knowledge of techniques and process used to design and construct buildings, terms and symbols used in construction drawings, types of construction materials, construction technologies, cost estimation, process to construct building structure, basic construction scheduling techniques, architectural elements, finishing, and building mechanical systems and legal aspects of building control and construction such as building control law, environment law, energy law, copyrights in architectural design works and patent law related to construction technology.

LLB 4522 Real Estate Development 3 (3-0-6)
Methods in real estate development for various types of real estate, various participants in the real estate development process in both public and private sectors, land selection, development process, including conceptual development, feasibility study, real estate cycles, market analysis, and business strategy and legal aspects of property law, land law, land allocation, laws on real estate services, consumer protection, etc.

LLB 4523 Real Estate Finance and Appraisal 3 (3-0-6)
Types of financial institutions and sources of funds, types of loan, underwriting, analysis of project development loan and mortgage loan, factors and principal process in real estate

lending, and government's current policies regarding real estate finance .Introduction to real estate appraisal, definition of value, objectives of appraisal, with emphasis on the concepts of three basic approaches to calculate value :cost approach, market approach and income approachand legal aspects of corporate finance law related to real estate business including suretyship law, mortgage law, security business law, securities and exchange law, property appraisal law, etc.

LLB 4524 Principles of Economics for Lawyers 3 (3-0-6)
Significant fundamental principles of micro-economic and macro-economic, Fundamental economic problems, Elements used to prescribe supply and demand of goods, consumer's behavior, Features of perfect and imperfect competitive market, Calculation of Gross Domestic Products(GDP), Finance and Banking, International trade and the connection between law and economic system.

LLB 4525 Principles of Accounting and Financial Reports 3 (3-0-6)
for Lawyers
Fundamental accounting principles, Business assets appraisal, Concepts regarding net asset value (NAV), Understanding and analyzing financial statements to benefit the practice of business law and to cooperate with other concerning professions.

LLB 4526 Securities and Securities Exchange Law 3 (3-0-6)
Prerequisite: have taken LLB 3506 Laws on Business Organizations
Development of securities exchange market in Thailand and its management, various institutions involved, issuance and exchange of securities, control, the operation of securities business, tax law and accounting relating to securities exchange, legal measures of various problems of securities exchange.

LLB 4527 International Economic Law 3(3-0-6)
Prerequisite: have taken BBA 1101 Business Exploration
Rules and economic relationship among developed countries and developing countries in 1) General Agreement on Tariffs and Trade(GATT) to analyze agreements in multilateral trade negotiations, the negotiations within the GATT framework and foreign economic laws which effect Trades and exports of Thailand, 2) the International Monetary Fund to analyze the rules of lending in the case of deficit, indebtedness and development and 3) roles of regulation on transnational companies.

LLB 4528 Arbitration Law 3 (3-0-6)
Legal principles, rules, and regulations concerning arbitration of the Thai Chamber of Commerce, Key and interesting international chambers of commerce and other organizations, Arbitration treaties and Execution of arbitral awards.

LLB 4529 Carriage of Goods by Sea Law 3 (3-0-6)
Law on water transport, Law on ships, Agreements on carriage of goods by sea, Law and criteria on collision at sea, salvage at sea, general average. Law on towage, and Law on navigable water zone.

LLB 4530 Customs Law 3 (3-0-6)
Nature and objectives of custom duties and excise, development and origins of law, liability to pay customs, customs procedure, offenses under customs law, authorities and duties of customs officials, litigation of customs cases, rules on tariffs, exemption of customs,

LLB 4531	Industrial Law	3 (3-0-6)
Principles of law relating to industrial operations and rules, regulations and legal problems arising from industrial operations.		

LLB 4533	Competition Law	3 (3-0-6)
Prerequisite:	have taken BBA 1101 Business Exploration	
Concept and core principles of competition law, importance of competition law in both domestic and international economic systems. Concept of anti-competitive practices, Anti-competitive agreements, Block exemptions, Abuse of a dominance, Market concentration, Merger and acquisition of enterprises resulting in trade competition restriction.		

LLB 4535	Significant Problems in Business Law	3 (3-0-6)
Seminar on significant problems in business law, and analysis on significant judgements of the Supreme Court.		

LLB 4537	Significant Problems in Intellectual Property Law	3 (3-0-6)
Prerequisite:	have taken LLB 4512 Intellectual Property Law	
Seminar on significant problems relating to intellectual property law and analysis on significant judgements of the Supreme Court.		

LLB 4539	International Financial and Banking Law	3 (3-0-6)
Financial market transactions in commercial banking, insurance, derivatives, and capital		

markets, the big picture of the legal underpinnings of financial transactions and how risk in the financial market is entered, managed, dispersed and shifted, analyze and compare the legal basis of financial transactions in the region.

LLB 4540 International Business Law and Start-Up Business 3 (3-0-6)
(For Non-Law Students)

An overview of international economic law and international business law. Its scope, definition, framework, and correlation with national business law. Fundamental principles of international trade law on both goods and services, global trend of trade liberalization, China's and ASEAN's trade policy, and business opportunities for new entrepreneurs. Key features and regulations in Thai civil and commercial code and business acts. Start up your business in Thailand, regulations on domestic investment, and intellectual property rights as an intangible asset.

LLB 4541 Trust Law for Assets Management and Investment 3 (3-0-6)
The Securities and Exchange Act B.E. 2535, Trust for Transactions in the Capital Market Act B.E. 2550, Law on Trust for Personal Assets Management, and other significant issues on Trust law.

LLB 4605 Counseling and Advocacy 2 (2-0-4)
Prerequisites: have taken LLB 3601 Civil Procedural Law,
 LLB3602 Criminal Procedural Law, and LLB 3604 Evidence Law

Practice of legal counselling, establishment and management of law firm and legal consulting firm, all procedures involved in litigation, case preparation, drafting of complaints, replies, motions and petitions, litigation technics, enforcement of judgment or order of courts.

LLB 4606 Advanced Civil Procedure Law 3 (3-0-6)
Concepts, theories and history of law on civil procedure, significant civil procedure processes in Thailand and in the world. Seminar on legal problems in civil procedure of Thailand and other countries.

LLB 4607 Advanced Criminal Procedure Law 3 (3-0-6)
Concepts, theories and history of law on criminal procedure, significant criminal procedure processes in Thailand and in the world. Seminar on legal problems in criminal procedure of Thailand and other countries.

LLB 4608 Significant Problems in Civil Procedure Law 3 (3-0-6)
Prerequisite: have taken LLB 3601 Civil Procedure Law
Seminar on significant civil procedure law topics, and analysis of significant judgements of the Supreme Court.

LLB 4609 Significant Problems in Criminal Prosedure Law 3 (3-0-6)
Prerequisite: have taken LLB 3602 Criminal Procedure Law
Seminar on significant criminal procedure law topics, and analysis of significant judgements of the Supreme Court.

LLB 4610 Criminology and Penology 3 (3-0-6)
Relationship between criminological theories, criminal law and criminal procedure which are essential foundation of criminal law enforcement, criminal procedure according to guidelines of criminologists and sociologists in order to study criminological theories from past to present, classification of crimes and criminals to prevent crimes, scope of

enforcement of criminal law, and social philosophies in respect of punishment and treatment of offenders.

LLB 4611 Science, Technology and Criminal Investigation 3 (3-0-6)
Science, technology and medical science relating to the application of law, Examining the evidences for criminal and civil proceedings, Criminal justice process at the police authority, Investigation and interrogation of criminal offenses, rights of the alleged offender according to the constitution.

LLB 4612 Law on Juvenile and Family Court and Procedure 3 (3-0-6)
Prerequisite: have taken LLB 3602 Criminal Procedure Law
Juvenile and Family Court and Procedure Act B.E. 2553, and other concerning law on juvenile and family. Prevention and problem-solving of the child, youth, and family.

LLB 4613 Human Rights in Judicial Procedure 3 (3-0-6)
Prerequisite: have taken LLB 3602 Criminal Procedural Law
Issues and problems of human rights in the criminal justice process of Thailand.

LLB 4703 Law of the Sea 3 (3-0-6)
Economic and political importance of the sea to humanity, Concepts on use and possession of the sea, Definition and development of international law of the sea, Present problems in respect of international law concerning the sea and sea bed which in beyond state boundaries, Sea territories, Exclusive economic zones, Continental shelf, High seas, Specific problems of archipelagic states, Environment control, Scientific research, Technology development, Dispute resolution among states arisen from sea issues, Importance of sea to Thailand, Thailand's perspectives and roles toward international law of the sea problems.

LLB 4704 International Organization Law 3 (3-0-6)
Development of international organizations, structures, powers and duties of the League of Nations and various organs of the United Nations, such as the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, the Secretariat and the International Court of Justice, the powers and duties of specialized agencies and region organizations.

LLB 4705 European Union Law 3 (3-0-6)
Prerequisite: have taken LLB 3701 Public International Law
History and evolution of the European Union (EU), objectives and sources of EU law, the structural characteristics of the European Union, legal systems of the European Union, the structure, powers, duties and operations of the European Union, the European Commission, the European Council and the European Court of Justice. Relations between the European Union and Member States and between the European Union and other States or other international organizations.

LLB 4706 Introduction to Air Law and Space Law 3 (3-0-6)
Prerequisite: have taken LLB 3701 Public International Law
Fundamental concepts of air law and space law, Sovereignty over airspace, Roles of international organizations which control aviation. Principles of space law, including rules which apply and control the state activities in outer space.

LLB 4707	ASEAN Law	3 (3-0-6)
Evolution of Regionalism in Southeast Asia and ASEAN prior to the adoption of ASEAN Charter; ASEAN Free Trade Agreement(AFTA), ASEAN Trade in Goods Agreement(ATIGA); ASEAN Framework Agreement on Services(AFAS); Framework Agreement on the ASEAN Investment Area(AIA); ASEAN Comprehensive Investment Agreement(ACIA); Asian Economic Community(AEC), ASEAN Charter and its legal issues and implications; legal criteria of regional groupings according to General Agreement on Tariffs and Trade(GATT) and The Marrakesh Agreement Establishing The World Trade Organization(WTO Agreement); legal criteria of international organizations in light of international law, and ASEAN's relationships with outside powers.		

LLB 4708	Seminar in ASEAN Law	3 (3-0-6)
Prerequisite:	have taken LLB 4707 ASEAN Law	
Seminar on social issues relating to ASEAN law context in globalization.		

LLB 4709	Seminar in International Law	3 (3-0-6)
Prerequisite:	have taken LLB 3701 Public International Law and LLB 3702 Private International Law	
Discussion, apply and analysis on significant problems pertaining to international law.		

LLB 4801	Labour Law	3 (3-0-6)
Fundamental principles of Labour Law, Evolution, Combination, Scope and Sources of Labour Law, Law on Labour Protection, Alien Working, Labour Relations, Social Security, Compensation, Labour Court and Labour Procedure Law.		

LLB 4802	Law on Digital Technology	2 (2-0-4)
Principles of law pertaining digital technology.		

LLB 4803	Finance and Financial Institutions Law	2 (2-0-4)
Roles of commercial banks and other financial institutions, Controlling, monitoring, and promoting policies, Financial technology as well as law on banking and financial institutions.		

LLB 4804	Law on Personal Data Protection	2 (2-0-4)
Principles and theories of personal data protection, Structure and scope of laws on personal data protection, Comparison between the Thai legal provisions and the European Union's law, Characteristics and acts on personal data, Persons and organizations pertaining to personal data as well as legal authorities and obligations, Rights of the data subject, Liabilities, Penalties, and Complaints in case of legal violations.		

LLB 4805	Legal Research and Legal Research Methodology	3 (3-0-6)
Importance of research, Meaning of research, Ethics of researchers, Problems of research, procedures, principles and legal research methodology, Quantitative and qualitative researches, Conducting a legal research using law database, Using computer as tools to produce an academic essay, Presentation of academic works by using appropriate and up-to-date technology.		

- LLB 4806 Business and Human Rights (For Non-Law Students) 3 (3-0-6)
 Concepts of business organizations' roles toward society, and business problem issues affecting human rights. Modern Slavery, Challenges of business practices, Enforcement of the UN International Guiding Principles of Business and Human Rights.
- LLB 4807 Law on Digital Economy and Startup Business 3 (3-0-6)
 Definition, characteristics of Digital Economy, and Startup Business and relevant legal issues.
- LLB 4808 Law on Corporate Governance 3 (3-0-6)
 Knowledge of Corporate Governance(CG), Principles and concepts of Corporate Social Responsibility(CSR), Environment, Society, and Government(ESG), and related laws.
- LLB 4809 Human Rights Law 3 (3-0-6)
 Definition and philosophy of human rights, protection of human rights under the League of Nations and the United Nations, Protection of human rights at international and regional levels, including Arab States, Human rights under Thai law.
- LLB 4810 Environmental Law 3 (3-0-6)
 Causes of environmental problems and their effects on living things, society and country, Governmental control policies and implementation on environment problems, Law on environmental preservation, Protection and control of air, water, and land, Litigations for damages and compensations in case of environmental problems.
- LTX 2004 UI/UX Design and Prototyping 3 (3-0- 6)
 Overview of interactive systems, user capabilities, interface technology, design thinking process, user stories and scenarios, wireframes and storyboards, prototyping, interaction design, usability design and testing.
- LV 3212 Art Direction for Live Performance 3 (2-2-5)
 Prerequisite: CA1112 Introduction to creative communication
 LV 3301 Script Analysis and Creation for Live Performance
 Art direction for live events and performance. Function, consistency of performance art directing and visual elements, design concept of scenery, property, costume and lighting, and multimedia in live events and performance. Principles of corporate design, interpretation and conceptualization for live events and performance to develop designing live events.
- LV 3213 Stage Management for Live Performance 3 (2-2-5)
 Prerequisite: CA 1102 Introduction to Creative Communication
 LV 3301 Script Analysis and Creation for Live Performance
 Stage management for live events, process of stage management from pre-production, production to post-production, responsibility of stage management function, and the preparation for internship in backstage function in live events production to be skillful in live event or production on set planning, management and operation both for stage and related areas.
- LV 3260-64 Selected Topics in Live Event Creation 3 (3-0-6)
 and Management Concepts
 An exploration and study of selected topics in live event creation and management

concepts. The topic will be announced semester by semester.

LV 3270-74 Selected Topics in Live Event Creation 3 (2-2-5)
and Management Practices

An exploration and practice of selected topics in live event creation and management practices. The topic will be announced semester by semester.

LV 3280 Costume, Make-up and Styling 3 (2-2-5)

Selecting costume and make up for performance, usage of costume, concept of costume and makeup selection for performance, time and space for appropriate selection, history of costumes, definition of costume, types of costume, costume and fashion, process of costume design and selection, and straight make-up and fancy make-up workshop.

LV 3281 Acting Skills Training for Personality Development 3 (2-2-5)

Personality development, mental and physical preparation, self-acknowledgement, SWOT analysis, human nature, human perception, law of attraction, self-esteem, self-confidence, gesture, facial expression, vocal training, public speaking, wardrobe and make-up for different occasions.

LV 3282 Set-props Design and Production 3 (2-2-5)

Creating scenery and property in live events and performance space. Utilization of scenery and property design process including design document, concept of scenery and props, form and style of scenery, idea and design concept, fundamental stage craft, materials and tools for scene and prop creation.

LV 3283 Special Event and Festival Management 3 (2-2-5)

A wide range of cultural events and the management of cultural events and festivals around the globe to gain a deeper understanding of festival and cultural event cores and structures from the transformation of the media industries by political economy, culture and technological changes, and trends include international media policies, and how such transformation creates an impact on content across media platforms in live events and performance.

LV 3284 Acting for Camera and Live Performance 3 (2-2-5)

Interpret and analyze script the use of imagination, emotion, creating character, character interpretation, creative movement, awareness, objective of character for play, improvisation skill, scene interpretation, and integration of vocal and physical skill for camera and live performance.

LV 3301 Script Analysis and Creation for Live Performance 3 (2-2-5)

Prerequisite: CA 1102 Introduction to Creative Communication

Critical analysis of script structure, genre, theme, style, sub-text meaning, dramatic event, semiotics and point of view of the story-teller. Principles of storytelling for live events and performance, elements of script and storytelling, creating theme, plot and story as well as creating characters, use of dramatic and character's actions to tell the story and create script for live events.

LV 3302 Acting Skills Training for Live Performance 3 (2-2-5)

Prerequisite: CA 1102 Introduction to Creative Communication

Basic acting skills training. Relations between vocal and physical expression for

performance purpose including communication, physical and vocal preparation, relaxation, concentration, body movement, space usage for performance, imagination, emotion, creating character, character interpretation, creative movement, objectives of character, situational analysis and integration of vocal and physical skill for performance. In order to present in public attendance and various media.

LV 3212	Art Direction for Live Performance	3 (2-2-5)

Prerequisite: CA1112 Introduction to creative communication

LV 3301 Script Analysis and Creation for Live Performance

Art direction for live events and performance. Function, consistency of performance art directing and visual elements, design concept of scenery, property, costume and lighting, and multimedia in live events and performance. Principles of corporate design, interpretation and conceptualization for live events and performance to develop designing live events.

LV 3213	Stage Management for Live Performance	3 (2-2-5)

Prerequisite: CA 1102 Introduction to Creative Communication

LV 3301 Script Analysis and Creation for Live Performance

Stage management for live events, process of stage management from pre-production, production to post-production, responsibility of stage management function, and the preparation for internship in backstage function in live events production to be skillful in live event or production on set planning, management and operation both for stage and related areas.

LV 3260-64	Selected Topics in Live Event Creation	3 (3-0-6)

and Management Concepts

An exploration and study of selected topics in live event creation and management concepts. The topic will be announced semester by semester.

LV 3270-74	Selected Topics in Live Event Creation	3 (2-2-5)

and Management Practices

An exploration and practice of selected topics in live event creation and management practices. The topic will be announced semester by semester.

LV 4210	Project Management for Live Performance	3 (2-2-5)

Prerequisite: CA 1102 Introduction to Creative Communication

Integration of knowledge, skills, and techniques in order to conduct research project proposal, managing, handle and plan for approval of live event projects, live event campaigns, and academic research projects. To implement and execution live events both on ground and related area.

LV 4211	Persuasive Marketing for Live Performance	3 (2-2-5)

Prerequisite: CA 1101 Introduction to Strategic Communication

Persuasive marketing for live events and performance include principles of financial and budgeting management, writing a proposal, setting up marketing/ PR plan and developing communication plan for marketing and evaluation. To create a marketing plan and implementation for live events promote.

LV 4212	Live Event Creation and Management Workshop	3 (2-2-5)
Prerequisite:	ELE 2000 Academic English LV 3301 Script Analysis and Creation for Live Performance LV 3212 Art Direction for Live Events LV 3213 Stage Management for Live Events	
A workshop training in live event creation and management under the supervision of the instructor.		
MA 1000	Business Mathematics and Statistics (For School of Arts, School of Communication Arts and School of Music only)	3 (3-0-6)
Prerequisite :	BG 0012 Intensive Mathematics or BG 0220 Basic Mathematics	
Relation, linear function and applications in business, mathematics of finance visualizing and exploring data, descriptive statistical measures and basic statistical inference (One sample t-test, two independent-samples t-test, analysis of variance, Simple linear regression and correlation)		
MA 1200	Mathematics for Business	3 (3-0-6)
Prerequisite:	BG 0012 Intensive Mathematics or BG 0220 Basic Mathematics or BG 0013 Math Exposure	
Relation and Various functions: linear, polynomial, exponential, logarithmic, rational and their applications in business and economics, linear programming, mathematics of finance and differential calculus: limits, derivatives, and optimization.		
MB 1001	Music Business Fundamentals	3 (3-0-6)
Introduction to music business and music industry, highlighting those areas where music and business intersect. Career possibilities in the music industry, the development of business-related knowledge and skills necessary for effectively maintaining a professional music career, the vocabulary and terminology of the music industry, and the distinction between music and business at the corporate level		
MB 1111	Happiness, Passion, and Aesthetics	3 (3-0-6)
The approach to pursuit of happiness from personal experience and professional goals. Basic principles of positive psychology with recent scientific studies on happiness. Design thinking approach to discover a vision for a personal life and the future career and to get clear on a purpose for life. The appreciation in the beauty of arts, music, cinemas, dramatic works, and dances through imagery and sound.		
MB 1500	Introduction to Data Science	3 (3-0-6)
Introduction to data science, data collection, data manipulation, data analysis techniques, data communication, data visualisation, insights interpretation, software for data scientists.		
MB 2433	Computer Application for Musicians	3 (1-4-4)
Skills needed to use computer application such as DAW for producing music as well as how to read and understand computer specification, computer components, computer connecting port.		

MB 2531	Music Business	3 (3-0-6)
Survey of the music industry, highlighting those areas where music and business intersect. Career possibilities in the music industry, the development of business-related knowledge and skills necessary for effectively maintaining a professional music career, the vocabulary and terminology of the music industry, and the distinction between music and business at the corporate level.		

Prerequisite: MB 2531 Music Business
Overview of the music industry, career options, how different units of the industry operate, how revenues are generated, how to protect songs, and how new digital technologies help to market, to promote and to distribute musical products.

Principles of finance and accounting in music business, basic concepts underlying music business transactions and financial statements, and to determine the most appropriate financial measures for those events.

Music production through internet, using software to create and synchronize among distance members around the globe.

Legal issues that associated with artists, musicians, engineers, producers; legal changes and challenges alert, real approach to legal matters between individuals' working procedure and stakeholders in the music business world today, including national and international copyright law and ethics.

The role and importance of a music entrepreneur, and how they impact the career of the artist and their brand image.

A conceptual understanding of basic licensing terms, opportunities, and strategies and apply that knowledge to monetizing your own creative intellectual property.

How to make ideas stick, and increase the influence of the content, how to generate more word of mouth, and use the power of social networks to spread information and influence to music fans.

Special session for students to explore music during the semester break.

History of music industries in Thailand from 1851-1950. The three important parts, live music performance, publishing and recording have important role on music industries in Thailand in this period. In this period of forming Thai music industry, an increase in western culture influenced Thai culture, the new technology and invention was imported to Thailand by foreign educated, foreigners, and traders. These are significant factors that

make music industries in Thailand further progress.

MB 3541 Online Social Media for Music Business 3 (3-0-6)
Communication theories and online social media process, digital content creation, visual creation and copy writing to persuade users, social media analytics on each platform, analytics for consumer insight and target.

MB 3542 Design Thinking for Music Business 3 (3-0-6)
Overview of design process, problem interpretation, ideation, experimentation, solution discovery, design thinking approach to develop music products, services, or solutions for complex problems in music industry; design thinking methodology, techniques, and supporting tools.

MB 3543 Music Entrepreneurship Startup 3 (3-0-6)
Overview of music entrepreneurship startup, innovations, design thinking, ideation, persona, user interface design, UX/UI, lean startup, lean canvas, value propositions, UVP, agile manifesto, business modeling, entrepreneurship, marketing, pitching, growth hacking, angel investors, venture capital.

MB 3545 Digital Marketing for Music Entrepreneur 3 (3-0-6)
Digital marketing with an integrated and optimized marketing plan to build up digital touch points, generate interest in music, and distribute music online.

MB 3549 Music Entrepreneurship Research 3 (3-0-6)
Fundamentals of the research writing and proposal, literature review, and qualitative and quantitative research methods in music entrepreneurship.

MB 3550 Feasibility Study for Music Entrepreneur 3 (3-0-6)
Marketing and finance feasibility in music business, feasibility tools for decision making, payback period analysis, a comparative analysis between NPV and IRR, internal rate of return, risk management in business.

MB 3551 Creative Music Entrepreneurship 3 (3-0-6)
Creativity for music business innovation and develop the mindset, knowledge, and insights required to pursue an entrepreneurial track. Explore creativities from all over the world and study from them to have inspiration to create the work and the start-up.

MB 3561 Artist and Music Management 3 (3-0-6)
The role and importance of an artist manager, how they impact the career of the artist and their brand image.

MB 4000 Internship in Music Entrepreneurship 0 (240 hours)
Prerequisite: Completion of at least 100 credits
Internship with a company in the music industry for at least 240 hours.

MB 4000 Internship in Music Entrepreneurship 0 (240 hours)
Prerequisite: Completion of at least 100 credits
Internship with a company in the music industry for at least 240 hours.

MB 4510	Project Management for Music Entrepreneur	3 (3-0-6)
Individual or group projects relating to the management of music business or artists, overall approach, with many specific business tools, to help successfully plan, execute, monitor, and complete music industry-related projects.		
MB 4512	Music in Film Industry	3 (3-0-6)
History of cinema, film scoring, sound effects, history and development of incorporating sound into films, specific roles of the music industry in relation to film and broadcast media.		
MB 4533	Digital Music Publishing	3 (3-0-6)
The role of performance rights organizations, and how market and promote music compositions and turning music into revenues.		
MB 4535	Digital Creativity in Music Promotion	3 (3-0-6)
Technological innovation of new media and convergence impact the production and consumption of media content, including music, mobile, games, and online content that help promote music in a digital age.		
MB 4538	Concert Management	Non-Credit
Prerequisite:	Completion of at least 100 credits	
Launch and run a successful live music venue and the essential components of a successful concert: from assembling a management team to alternative streams of income with effective merchandising, promotion techniques and sponsorships.		
MB 4540	Music Business Data Analytics	3 (3-0-6)
Music business analytics, data application, statistical analytics with exploratory model and data visualization for decision making, supporting music business analytics, and aiding music business analytics.		
MB 4550	Business Intelligence and Data Analytics	3 (3-0-6)
Prerequisite:	MB 1500 Introduction to Data Science	
Fundamentals of business intelligence, high-level knowledge and insights, Big Data, data mining, machine learning, strategic planning, data acquisition, data manipulation, data analytics tools.		
MB 4555	Music Label Management	3 (3-0-6)
Strategies, techniques, and practices of running an independent record label and skills needed for DIY artist management. marketing, brand management, budget development, artists and repertoire (A&R), collaborative working environments, project management, time management, effective communication skills, and recording and engineering.		
MB 4560	Machine Learning and Data Mining	3 (3-0-6)
Prerequisite:	MB 1500 Introduction to Data Science	
Machine learning, data mining, knowledge discovery, visualization, classification, clustering, association rules, decision trees, Bayesian learning, statistical pattern recognition, artificial neural networks.		

- MB 4561 AI Application in Music Business 3 (3-0-6)
 Prerequisite: MB 1500 Introduction to Data Science
 Overview of artificial intelligence, music business applications of AI, AI business automations, AI in decision support, AI as an expert system, machine learning, legal issues in AI, social acceptance of AI.
- MB 4562 Data Visualization 3 (3-0-6)
 Visualization for data distribution; regression graphics; visualization for categorical data; visualization for multivariate data and trellis plot; visualization for mathematical and statistical functions; visualization for time-series data; computer graphics; and 3D animation; graphic visualization; and information visualization.
- MC 1260 Instrumentation and Score Preparation 2 (1-2-3)
 The technical aspects involved in creating finished, professional scores. Score layout; instrumental/vocal ranges and performance characteristics; special playing techniques and limitations; breath and bowing considerations; choice of key, meter, beat, and subdivision values; use of slurs, articulation marks, dynamics, tempo variation, and other devices for indicating expressive nuance; proper under laying of vocal text; calligraphy; creating a practical piano reduction; and extracting parts.
- MC 2161 Jazz Theory I 3 (3-0-6)
 Prerequisite: MU 1301 Music Fundamentals I
 Major key harmony: secondary and extended dominant relationships, available tensions, melodic construction and motif development. Principles of linear harmonic continuity and guide tone lines. Minor key harmony; subdominant minor. Blues theory and chord progressions. Melodic rhythm, form, and melody/harmony relationship.
- MC 2162 Jazz Theory II 3 (3-0-6)
 Prerequisite: MC 2161 Jazz Theory I
 Analysis and application of major and minor key harmony; subdominant minor and modal interchange; chord scale theory. Review of melodic construction and melody/ harmony relationship; individual note analysis of melodies. Substitute dominant and related II-7 chords; diminished chord patterns; modulation.
- MC 2163 Jazz Theory III 3 (3-0-6)
 Prerequisite: MC 2162 Jazz Theory II
 Principles of modern chord progression: deceptive resolutions of secondary dominants; dominant seventh chords without dominant function; contiguous dominant motion. Review of melodic construction, form, and melody/ harmony relationship; modal interchange; pedal point and ostinato; modal harmony and modal composition; compound chords.
- MC 2260 Introduction to Film Scoring 2 (2-0-4)
 Investigation of the aesthetic relationship between film and music. Discussion of the many functions of film music with analysis of its most effective application to dramatic situations. Exploration of career opportunities in film and television music.
- MC 2351 Piano Accompaniment I 1 (0-2-1)
 Discussion and implementation of techniques for accompanying a vocalist or instrumentalist. Use of stylistically appropriate rhythm and voicing techniques in a supportive role. Introductions, endings, modulations, and transposition.

- MC 2352 Piano Accompaniment II 1 (0-2-1)
 Prerequisite: MC 2351 Piano Accompaniment I
 A continuation from Piano Accompaniment I. Discussion and implementation of techniques for accompanying a vocalist or instrumentalist. Use of stylistically appropriate rhythm and voicing techniques in a supportive role: introductions, endings, modulations, and transposition.
- MC 2353 Piano Accompaniment III 1 (0-2-1)
 Prerequisite: MC 2352 Piano Accompaniment II
 A continuation from Piano Accompaniment I. Discussion and implementation of techniques for accompanying a vocalist or instrumentalist. Use of stylistically appropriate rhythm and voicing techniques in a supportive role: introductions, endings, modulations, and transposition.
- MC 2361 Jazz Improvisation I 1 (0-2-1)
 Prerequisite: MC 1161 Jazz Theory I
 Basic concepts of improvisation: techniques, scales, and analysis of classic solos in a variety of idioms, including but not limited to Blues, Rock, Country, and Ethnic traditions, assimilation of these influences into what is commonly called "Jazz Improvisation". Students will complete 6 projects per semester, using computer and/or live performances in class.
- MC 2362 Jazz Improvisation II 1 (0-2-1)
 Prerequisite: MC 2361 Jazz Improvisation I
 Further development of improvising skills. Continuation of computer and/or live performances in class.
- MC 2363 Jazz Improvisation III 1 (0-2-1)
 Prerequisite: MC 2362 Jazz Improvisation II
 Further development of improvising skill. Continuation of computer and/or live performances in class with primary emphasis on Jazz and Fusion Jazz improve techniques
- MC 2661 Improvisation for Composition I 2 (1-2-3)
 A method of classical improvisation and encouraging its applications in performance and composition. The method aims to combine the use of structural, stylistic, textural and harmonic awareness with real-time flow and creative spontaneity.
- MC 2662 Improvisation for Composition II 2 (1-2-3)
 Prerequisite: MC 1161 Improvisation for Composition I
 Futher study of a method of classical improvisation and encouraging its applications in performance and composition. The method aims to combine the use of structural, stylistic, textural and harmonic awareness with real-time flow and creative spontaneity.
- MC 3251 History of Music I 3 (3-0-6)
 Prerequisites: BG 1002 English II
 Survey of Western music from Ancient Greek and Medieval through Baroque periods with an emphasis on understanding stylistic traits and theoretical concepts of the eras, Gregorian chant and secular monophony; evolution of musical notation; development of polyphonic music; vocal and instrumental genres such as mass, motet, madrigal, opera, cantata, sonata, and concerto, Baroque ornamentation in performance practice; analysis of

iconography (visual arts in music research), a survey of archives or prints, discussing of paintings on musical subjects, and the use of iconography in researches

MC 3252 History of Music II 3 (3-0-6)

Prerequisite: MC 3251 History of Music I

Survey of Western music from the Classical period to the present with an emphasis on understanding stylistic traits and theoretical concepts of the eras, development of genres such as sonata, string quartet, concerto, symphony, symphonic poem, character piece, Lied, and opera; and 20th century trends of impressionism, expressionism, atonality, serialism, minimalism, aleatory music, and electronic music, survey of world music

MC 3261 Dramatic Scoring 3 (3-0-6)

Prerequisite: MU 1304 Theory of Music IV or
MC 2163 Jazz Theory III,

This course combines analysis and composition techniques in order to provide students with the basic musical skills necessary for composing music for film. Focus is placed on how musical form derives from the dramatic flow of the film. Course work includes in-depth analysis of existing musical examples which demonstrate the building blocks of composition. These building blocks include melody, harmony, rhythm, and form as applied to specific dramatic situations. Students will compose several short original pieces modeled after the various analysis examples presented.

MC 3262 Dramatic Orchestration for Film 3 (3-0-6)

Prerequisite: MC 2162 Orchestration II or
CM 3262 Arranging II

This course focuses on the exploration and application of traditional and contemporary orchestration techniques to support and achieve intended dramatic effect. Regular assignments involve the use of orchestration as an important compositional tool to successfully meet the emotional requirements of a wide variety of dramatic situations.

MC 3271 Jazz Composition and Arranging I 3 (3-0-6)

Prerequisite: MC 1161 Jazz Theory I

Musical concepts of melody, rhythm, harmony, and form as applied to the principles and techniques of writing and arranging for the rhythm section (drums, bass, guitar, keyboards, basic percussion) and a lead-line for a solo instrument, two horns (Trumpet plus alto or tenor saxophone), or voice with focus on the conceptual process of combining individual components to create a musically satisfying original jazz tune and arrangement.

MC 3272 Jazz Composition and Arranging II 3 (3-0-6)

Prerequisite: MC 3261 Jazz Composition and Arranging I

Further studying of jazz composition and arranging techniques, properties of the trumpet, alto saxophone, tenor saxophone, trombone, and baritone saxophone, and the composition/arranging processes of standard and spread voicings, approach techniques, melodic embellishment, and guide tone backgrounds with focus on application of processes to soli and background writing for two-, three-, four-, and five-part combinations of these instruments.

MC 4160 Jazz Composition 3 (3-0-6)

Prerequisite: MU 1302 Music Fundamentals II

A systematic approach to the art of composing in the jazz idiom. Exploration of melodic, harmonic, and rhythmic principles. Standard jazz song form. Analysis of jazz standards.

Arranging considerations applied as a means of enhancing a composition. Projects for small jazz group required.

MC 4561 Yamaha Music Pedagogy 3 (3-0-6)

Prerequisite: MS 1004 Major Instrument IV

An intensive musical training to bring up knowledge and skills for Yamaha music program. Focus on musical techniques in the present, preparation for Yamaha music grade examination, and Yamaha music education system.

MC 4562 Entrepreneurship for Musicians 3 (3-0-6)

Exploration of the distinct mindset and essential knowledge base vital to the establishment and success of any music-related entrepreneurial endeavor. Repurpose skills as a musician to envision and develop a business. Leverage fundamental "multipreneurial" nature as a musician. Create opportunities around diverse musical skills. Conceive, form, launch, market, and manage a music-related business.

MCE 2101 Fundamentals of Mechatronics Engineering 3 (3-0-6)

Prerequisite: BG 1213 Physics II

Introduction to Mechatronics and the interaction between mechanical actuation and electronic control; early design evolution, evolution of engineering design; using of sensors in the system; case studies: simple subsystem integration; modern technologies, control, sensors, power supplies, controlled drives, Programmable Logic Control (PLC) as a controller for Mechatronics system, the need for a systems approach to engineering design, control and embedded Intelligence or PLC.

MCE 2103 Fundamentals of Mechatronics Engineering Laboratory 1 (0-3-2)

Prerequisite or Co-requisite: MCE 2101 Fundamentals of Mechatronics Engineering

Experiments covering basic sensors: inductive, capacitive, magnetic, photoelectric and ultra-sonic. Programmable Logic Controllers is introduced and experimental covering Ladder (LD), Structure Text (ST), Function Block Diagram (FBD) and Sequential Flow Chart (SFC) languages.

MCE 3220 Fundamentals of Electric Vehicles 3 (3-0-6)

Prerequisite: EE 2410 Electrical Machine Systems

Main components: electric motor, electric drive train, battery pack, auxiliary battery, onboard charger, inverter, converter, control unit, mechanical components; integration of mechanical and electrical components; energy sources: battery, solar cell, fuel cell, capacitor and flywheel; energy storage and charging; electric drive, electric drive trains; regenerative braking systems; transmission systems; control systems; torque-speed characteristics; motor and battery sizing and selections; cooling and heating systems; state-of-the-art technologies: advanced driver assist systems, navigation systems, automatic emergency braking systems, self-driving systems, comprehensive vehicle tracking, IoT based smart vehicles, vehicle-to-vehicle (V2V) communications.

MCE 3710 Principles of Railway Engineering 3 (3-0-6)

Railway systems, track works; locomotives; rolling stocks; rail propulsion systems, diesel engines, diesel drive systems, electric traction motor drive, electric linear motor drive, diesel-electric drive, magnetic-levitation systems; braking systems; signaling and telecommunication systems, supervisory control and data acquisition system (SCADA); electrification and power supply systems, operation; maintenance

MCE 4101	Introduction to Robotics	3 (3-0-6)
Introduction to robotic systems (revolute and prismatic); spatial descriptions; coordinate transformation (2D and 3D); forward kinematics analysis; inverse kinematics analysis; Jacobians analysis; robot dynamic system; trajectory generation; position control; and force control.		
MCE 4104	Automation Technology 4.0	3 (3-0-6)
Prerequisite:	MCE2101 Fundamentals of Mechatronics Engineering or EE3705 Microprocessors and Microcontrollers	
Transformations of industrial processes with integrations of modern technology such as smart sensors, PLC, HMI, SCADA, IoT; data computations and communications through cloud computing used in industry 4.0; factory communication layers such as corporate plant; shop floor and unit; essential layout of the factory; human-robot integrations; safety of human-robot collaborations used in modern automation technology 4.0		
MCE 4201	Advanced Robotics and Control	3 (3-0-6)
Prerequisite:	MCE 4101 Introduction to Robotics EE 3406 Control Systems	
The fundamental types of robots and their applications; Robot controllers: independent joint control, linear control based on PD, PID, state space methods; tracking and disturbance rejection; advanced robotic control methods using Artificial Intelligence (AI) techniques: Neural Networks, FuzzyLogic, Genetic Algorithms (GA); Force control problems: impedance control, hybrid control, introduction to computer vision in robot applications: thresholding, image segmentation, camera calibration		
MCE 4720	Railway Signaling and Telecommunications	3 (3-0-6)
Prerequisite or Co-requisite:	MCE 3710 Principles of Railway Engineering	
Railway traffic control systems; train scheduling; signaling principles; signaling and telecommunication systems; SCADA systems; power supply systems; interlocking systems; wayside equipment; on-board equipment; railway telecommunication systems; train position monitoring systems; central train control center.		
MCE 4730	Railway System Operation and Maintenance	3 (3-0-6)
Prerequisite or Co-requisite:	MCE 3710 Principles of Railway Engineering	
Railway operation and maintenance; system operation planning; headway time; train timetable construction; train control; safety regulations; fare collection systems; shunting operations for passenger and freight trains; train station operations; principles of maintenance; maintenance scheduling; locomotive and rolling stock maintenance; track work maintenance; signaling and telecommunication system maintenance; power supply system maintenance.		
MCE 4907	Engineering Internship	3 (0-9-6)
Prerequisite:	With the consent of the Chairperson	
Engineering internship in private enterprises, government agencies, or academic institutes under supervision of experienced engineers in order to gain real-world working experience from the assignment, internship report		

MCE 4911	Mechatronics Engineering and Artificial Intelligence Project I	1 (0-3-2)
Prerequisite:	Senior Standing or Completion of 100 Credits	
Study and development in Mechatronics Engineering and Artificial Intelligence; project report, project presentation		
MCE 4912	Mechatronics Engineering and Artificial Intelligence Project II	2 (0-6-3)
Prerequisite:	MCE 4911 Mechatronics Engineering and Artificial Intelligence Project I	
Continuation of work done in Mechatronics Engineering and Artificial Intelligence Project I. project report, project presentation		
MCE 4913	Advanced topics in Mechatronics Engineering and Artificial Intelligence	3 (3-0-6)
Advanced topics in the field of Mechatronics Engineering and Artificial Intelligence		
MCE 4913	Advanced topics in Mechatronics Engineering and Artificial Intelligence	3 (3-0-6)
Advanced topics in the field of Mechatronics Engineering and Artificial Intelligence.		
MCE 4914	Special Problems in Mechatronics Engineering and Artificial Intelligence	3 (3-0-6)
Topics of current interest in the field of Mechatronics Engineering and Artificial Intelligence		
MDD 1501	Creative Art and Design Practice	3 (3-0-6)
Conceptualization and practice in art and design creation, application of related concepts and theories for art and design creation including interdisciplinary and digital technology.		
MDD 1502	Aesthetics	3 (3-0-6)
Analysis of philosophical aspects of art, design, and aesthetic theories, aesthetics in art focusing on beauty, defining values of beauty and preferences, emotional and sensory values individuals have towards artworks and designs.		
MDD 2501	Contemporary Design and Cultural Administration	3 (3-0-6)
Concepts and theories in the management of both national and international cultural and design aspects, advancing cultural works to create both cultural and commercial value.		
MDD 2502	Cultural Intellect Management for Creative Industrial Business	3 (3-0-6)
Studies of concepts and theories of cultural wisdom, types of cultural wisdom and preservation, awareness of values, and importance of cultural wisdom for proper management.		
MDD 2503	Art in Community and Public	3 (3-0-6)
Designing and Planning the creation of public artworks, originating from researching documentary data and field surveys, analyzing community and public needs, emphasizing cultural values and community identity through public artworks, and designing methods to systematically utilize the outputs for societal benefit without limitations on forms and creative methods.		

- MDD 2504** **Digital Culture and Innovation Creativity** **3 (2-2-5)**
Concepts and theories related to media, society, and culture, the roles and responsibilities of old and new media, media integration, advertising, the influence of media on driving society and cultural change in various contexts, to foster creativity in art and design in digital age, innovation, the relationship between innovation, art, design, the roles and responsibilities of art and creative thinking in the process of designing and developing innovations and industries in the arts and design sectors, including field studies.
- MDD 2505** **Art Psychology** **3 (3-0-6)**
Perception in art, memory in art, imagination in art, inspiration in art, artistic reflection, as well as the relationship between creativity and acceptance in art, artistic thinking, and artistic imagination. Exploring the psychology and standards of artists' involvement in artistic creation activities, feeling and understanding in art, and the roles, mechanisms, and methods of art as psychological therapeutic tools in psychotherapy. Cultivating self-image and importance of art in living.
- MDD 3401** **Artist Studio: Jewelry Art and Design** **3 (2-2-5)**
Introduces the fundamentals of jewelry design through traditional and contemporary artistic approaches. Focuses on basic design principles, various materials, and essential handmade techniques. Includes sketching, prototyping, and hands-on jewelry-making to develop creativity and foundational skills. Suitable for all skill levels.
- MDD 3402** **Basic of Lighting and Luminaire Design** **3 (2-2-5)**
Introduction to light, light perception, light history, theory, lamp and luminaire specification, optical terminology, law and regulation, concept, and experimented with conveying concepts in lantern form, light within space and experimental models.
- MDD 3403** **Smart Living and Wellness Study** **3 (2-2-5)**
Observation and discussion on recent changes in lifestyle and living preferences of new generations driven by global and social issues that transforming the way people believe, behave, interact, and desire for wellness lifestyle.
- MDD 3404** **Exhibition Design** **3 (2-2-5)**
A study and hands-on exploration through industry collaboration of the fundamental principles and concepts involved in creating successful and immersive exhibitions, which includes history and evolution of exhibition design, components of exhibition design, including space planning, layout, lighting, color schemes, and environmental considerations, curatorial concepts, audience experience, display techniques, exhibition technology, budgeting and logistics, sustainability and accessibility, exhibition promotion, and ethical considerations.
- MDD 3405** **Artist Studio: Decorative Art** **3 (2-2-5)**
Variety of decorative art related to interior design that has emerged throughout the history, perception of arts with aesthetic appreciation, conceptual idea of imaginative interpretation, critical thinking of the artist's philosophy, inspiration, material, creative technique, and cultural influence to decorate the venue.
- MDD 3406** **Design Coordination and Project Management** **3 (2-2-5)**
Project management and coordination skills in design business for entrepreneurs with an emphasis on project management principles from conceptualization to implementation to

meet the client's needs and project time frame.

MDD 3407 Seminar in Art and Design 3 (3-0-6)
Creative art and design in contexts of cultural and trends in art and design industry.
Factors and conditions influencing art and design creation.

MDD 3412 Product Design Studio: Brand CI Design 3 (2-2-5)
A comprehensive course for the concept of brand identity, particularly in the context of corporate brands. Exploration of fundamental principles for logo and graphic design that are essential for corporate branding on digital platforms. Emphasizing the importance of visual communication, the study focuses on the creation of two-dimensional artwork and graphics that effectively convey and enhance the brand's identity.

MDD 3413 Product Design Studio: Graphic and Packaging Design 3 (2-2-5)
Packaging design that integrates marketing, graphical and three-dimensional design knowledge essential in creating innovative packaging for different kinds of product ranging from food and beverage, beauty and personal care to toys and home products with emphasis on product branding.

MDD 3421 Product Design Studio: Small-Medium Object Design 3 (2-2-5)
Design of small to medium-sized objects, prioritized on social trend needs, with a focus on the design and engineering of objects for assistive products, sustainable products, with safety considerations concern.

MDD 3422 Product Design Studio: User Interface Design 3 (2-2-5)
Principles of user interface design applicable in graphical environment, command-line, as well as product application in to provide an understanding of how to communicate effectively with users through visual attributes of products.

MDD 3423 Product Design Studio: Furniture Design 3 (2-2-5)
Specific proponents, movements, and conceptual approaches relevant to key furniture designers from the industrial revolution to contemporary period, forms development, design process, aesthetics quality, fashion and trend through creative projects to encourage knowledge immersion and implementation of innovative, quality, and practical design.

MDD 3424 Product Design Studio: Fashion and Textile Design 3 (2-2-5)
Fashion design with emphasis on basic skills of fashion design practice such as draping, pattern cutting, sewing, and fashion illustrating with comprehensive approach to conceptual design and interdisciplinary thinking.

MDD 3430 Interactive and Digital Arts 3 (2-2-5)
Chronological journey that intertwines technological advancements with artistic expression. The roots of interactive art can be traced back to the mid-20th century, from 'computer art' to 'cyber art' and 'new media art' until present day where digital technologies has developed to Augmented Reality (AR) and Mixed Reality (MR) for immersive experiences and possibilities.

MDD 3431 Computer Programming for Interactive Design 3 (2-2-5)
Advanced study of computer aided design and the primary introduction to the creation of

work with a design narrative, computation, and interactivity.

MDD 3432	Interaction Design	3 (2-2-5)
Introduction to the creation of work within a design and technological context, (i.e., interactive installation, and responsive environments), developing individual investigations and interests by exploration, experimentation, and implementation.		

MDD 3441	Upcycling Fashion and Accessories Design	3 (2-2-5)
Exploring and experimenting with a range of sustainable textiles materials and techniques that can be used to upcycle unwanted garments with emphasis on traditional methods namely weaving, patchwork, and rag-rugging and deconstructing a garment and reassembling using key parts of the garment to create innovative fashion & textiles and accessories.		

MDD 3442	Fashion Merchandising	3 (2-2-5)
Directed toward the commercial and professional elements of fashion. Practice analyzing all aspects of merchandising and marketing within fashion and its related industries.		

MDD 3443	Fashion Communication and Styling	3 (2-2-5)
The Fashion Communication and Styling provides complementary skills in fashion and styling and fashion journalism, helping students to build skills in styling, image making, video production, written communication, and social media.		

MDD 3444	Pattern Making and Fashion Sewing Technique	3 (2-2-5)
Introduction to fundamental of pattern making and professional standard sewing techniques and apparel color theory construction.		

MDD 3451	Artist Studio : Drawing	3 (2-2-5)
Elementary concepts and techniques of freehand perspective sketch and rendering, training in perception of materials, form and spaces, various media and techniques of creation of artistic forms in light, shade and shadow, emphasizing upon conceptual development of personal skills.		

MDD 3452	Artist Studio: Sculpture	3 (2-2-5)
An introduction and practical experience in developing hands-on experimentation with differing Approaches to three-dimensional form, explore distinguishable visual art's inherent use of space and reliance on an enormous range of materials such as clay, cardboard, wire, styrofoam, paper-mache.		

MDD 3453	Artist Studio: Flower Arrangement	3 (2-2-5)
An exploration of space in design through an aromatic atmosphere, concentrate on the study of flower arrangement, emphasizes harmony, balance, and simplicity, establish a sense of serenity and tranquility in the environment with mindfulness and attentiveness, meditative approach.		

ME 1113	Engineering Drawing	3 (2-3-6)
Lettering, orthographic projection, orthographic drawing and pictorial drawings, dimensioning and tolerancing, sections, auxiliary views and development; freehand sketches, detail and assembly drawings, basic computer-aided drawing.		

- ME 1114 Engineering Workshop 2 (0-4-2)
Workshop on the use of the machine tools such as a lathe or milling machine, cutting tools, and drilling tools, for milling, cutting, drilling, and shaping metal materials. filing, grinding, and welding of metals. Carpentry is included. Students are required to make workpieces of metal and wood. A full report for each work is required.
- ME 1115 Engineering Drawing and Computer Aided Design 3 (1-2-6)
Lettering; orthographic projection, orthographic drawing; pictorial drawings; dimensioning and tolerancing; sections; auxiliary views; free hand sketches; detail and assembly drawings; basic computer-aided draw
- ME 1116 Engineering Workshop 1 (0-3-2)
Workshop on the use of the machine tools: lathe or milling machine, cutting tools, and drilling tools, for milling, cutting, drilling, and shaping metal materials. filing, grinding, welding of metals; carpentry; engineering workshop report.
- ME 2211 Engineering Mechanics I 3 (3-0-6)
Prerequisite: BG 1211PhysicsI
Force systems, resultant, equilibrium; fluid statics; kinematics and kinetics of particles and rigid bodies; Newton's second law of motion; work and energy; impulse and momentum.
- ME 2220 Engineering Mechanics II 3 (3-0-6)
Prerequisite: ME 2211Engineering Mechanics I
Structure analysis; principle of virtual work; stability; kinematics of rigid body; plane motion of rigid bodies: forces and accelerations, energy and momentum method; mechanical vibrations.
- ME 3110 Mechanics of Materials 3 (3-0-6)
Prerequisite: ME 2220 Engineering Mechanics II
Forces and stresses, stresses and strains relationship; stresses in beams, shear force and bending moment diagrams, deflection of beams; torsion; buckling of columns; Mohr's circle and combined stresses; failure criterion.
- ME 3120 Mechanics of Machinery 3 (3-0-6)
Prerequisite: ME 2220 Engineering Mechanics II
Velocity and acceleration analysis; kinematics and dynamics; force analysis of mechanical devices; linkages; gear trains and mechanical systems; balancing of rotating and reciprocating mass; machine synthesis.
- ME 3311 Pneumatic and Hydraulic Systems 3 (3-0-6)
Prerequisite: ME 2220 Engineering Mechanics II
Fundamentals of fluid mechanics; fluid properties; Pascal's law; flow governing equations: continuity equation, conservation of energy or Bernoulli's equation, Torricelli's equation; basic flow in pipes, pumps, pipe design and selection; hydraulics design and analysis; pneumatic systems, compressors, receivers, valves; flow through orifices.
- ME 3312 Pneumatic and Hydraulic Systems Laboratory 1 (0-3-2)
Prerequisite or Co-requisite: ME 3311 Pneumatic and Hydraulic Systems
Laboratory works to be done according to ME 3311Pneumatic and Hydraulic Systems.

ME 3410	Thermodynamics	3 (3-0-6)
Prerequisite:	BG 1211 Physics I BG 1108 General Chemistry	
First law of thermodynamics; second law of thermodynamics; Carnot cycle; energy; entropy; basic heat transfer; energy conversion.		
ME 3414	Fluid Mechanics	3 (3-0-6)
Prerequisite:	ME 2220 Engineering Mechanics II	
Properties of fluid; fluid static; momentum and energy equations; equation of continuity and motion; similitude and dimensional analysis; steady incompressible flow.		
ME 3418	Heat Transfer	3 (3-0-6)
Prerequisite:	ME 3410 Thermodynamics	
Modes of heat transfer; thermal conductivity, heat conduction equation; steady-state; one- and two-dimensional wave equation; unsteady-state heat conduction; radiation; fundamentals of convection heat transfer.		
ME 4010	Machine Design	3 (3-0-6)
Prerequisite:	ME 1115 Engineering Drawing ME 3120 Mechanics of Machinery	
Fundamentals of mechanical design; properties of materials; theories of failure; design of simple machine elements: keys and pins, shafts, springs, power screws, coupling.		
ME 4310	Mechanical Vibration	3 (3-0-6)
Prerequisite:	ME 2220 Engineering Mechanics II	
System with one degree of freedom; torsional vibration; free and forced vibration; method of equivalent system; systems having several degrees of freedom; methods and techniques to reduce and control vibration.		
ME 4602	Maritime Robotics	3 (3-0-6)
Prerequisite:	EE 3406 Control Systems	
Fundamental concepts associated with the field of maritime robotics; maritime robots used for oceanography, offshore exploitation and disaster response; vehicle design, mapping, path planning, navigation, collision avoidance.		
MP 1001	Music Production Fundamentals	3 (1-4-4)
The introduction of music production with the topics of sound physics, acoustics, basic electronics, signal flow, sound reinforcement, computer music, basic recording, basic mixing, and finishing a song demo production.		
MP 1400	Music Production Skills	2 (2-0-4)
Fundamental of producer skill such as basic arranging, basic recording, basic editing, basic mixing. Including, management and financial for producing music.		
MP 2400	Audio Fundamentals	3 (3-0-6)
The introduction of audio theory with the topics of sound physics, acoustics, basic electronics, signal flow and sound reinforcement.		
MP 2520	Video Production for Musician	3 (2-2-5)
Music video, live performance, and content video productions for online and social network		

using camera, video equipment and Final Cut Pro X.

MP 2521 Visual Media for Musician I 3 (2-2-5)
Techniques of motion and graphic for producing any kind of visual works associated with music, including a music video or short film, and the use of graphic and video editing software.

MP 2522 Visual Media for Musician II 3 (2-2-5)
Skills in computer graphic needed in music artworks such as poster, single cover, graphic used in social media via graphic software such as Adobe Photoshop and Adobe Illustrator.

MP 3411 Song Demo Production 3 (1-4-4)
Acquisition of technical, interpersonal and group skills needed in the development of professional quality song demos. Using MIDI, Software Instrument and Audio recording to complete a wide variety of musical projects.

MP 3421 Critical Listening 3 (2-3-4)
Listening skills of the audio engineer, development of skills and concepts of using width and depth, frequency range, dynamics, panning, distortion, reverb, delays, compression, phrasing and the different mixing techniques in various musical genres.

MP 3423 Pro Tools 2 (1-2-3)
Prerequisite: MP 2410 Music Computer Application
Learn functions of Pro Tools from setup, multi-track recordings of live instruments, MIDI sequencing, edit, mix-down and master.

MP 3424 Logic 2 (1-2-3)
Prerequisite: MP 2410 Music Computer Application
Learn functions of Logic from setup, multi-track recordings of live instruments, MIDI sequencing, edit, mix-down and master.

MP 3425 Cubase 2 (1-2-3)
Prerequisite: MP 2410 Music Computer Application
Learn functions of Cubase from setup, multi-track recordings of live instruments, MIDI sequencing, edit, mix-down and master.

MP 3426 Ableton Live 2 (1-2-3)
Prerequisite: MP 2410 Music Computer Application
Learn functions of Cubase from setup, multi-track recordings of live instruments, MIDI sequencing, edit, mix-down and master.

MP 3427 Drum Beat Programming 2 (1-2-3)
Prerequisite: MP 2410 Music Computer Application
Create a drum beat by imitating a traditional drum kit performance to an electronic drum session, writing and producing drum beats for any style of popular music by DAW software programs

MP 3428 Live Sound Reinforcement 3 (1-4-4)
Skills needed for managing live concert and event in audio engineering field as well as live sound recording, and technology that will involve with audio over network such as AVB or

Dante.

- MP 3429 Sound in Digital Domain 3 (3-0-6)
Introduction to Digital Audio (Analogue to Digital Convertor, Digital to Analogue Convertor and Digital Data Conversion) as well as how to read signal flow in the digital domain.
- MP 3431 Music Production Analysis 3 (3-0-6)
Skills in music production to enable to analysis emotional effectiveness of the music and identify music elements in records included music genre, melody, lyrics, drumbeat arrangement and concept behind the song.
- MP 3440 Audio Surgery Skills 3 (2-3-4)
Skills needed to use computer to storing, audio cleaning, editing, processing and presenting audio signals in a professional manner (i.e. with optimal fidelity and in ways which retain and convey the meaning of the music)
- MP 3441 Music Production with Pro Tools 3 (2-3-4)
Learn functions of Pro Tools from setup, multi-track recordings of live instruments, MIDI sequencing, edit, mix-down and master.
- MP 3442 Synthesizer and Sound Design 3 (2-3-1)
Skills and Concept of Synthesizer, Sound Design and Sequencer from basic, signal flow, modular synth, step sequencer and create music with MIDI.
- MP 3443 Digital Audio Workstation 3 (2-3-1)
Learn functions of digital audio workstation from setup, multi-track recordings of live instruments, MIDI sequencing, edit, mix-down and master.
- MP 3444 Podcast and Live Streaming 3 (2-3-1)
Plan and create podcast and live streaming session using analog and digital tools included software for example OBS and streamyard.
- MP 3445 Audio post-production for film and TV 3 (2-3-1)
Techniques and strategies used in post-production process. Learning to spot, edit, and assemble dialogue, sound effects, foley, and music for film and television using Pro Tools.
- MP 3520 Final Cut Pro 2 (1-2-3)
Techniques of videography for producing any kind of visual works associated with music, including a music video or short film, and the use of video editing software.
- MP 3521 Music Video Production 3 (1-4-4)
Music video and live performance video production for online and social network using camera, video equipment and Final Cut Pro X.
- MP 4420 Electronic Music Production 3 (3-0-6)
Tools and techniques to create contemporary electronic music in a variety of styles, including drum 'n bass, trance, dub, and house
- MP 4421 Digital DJ 3 (3-0-6)
DJ techniques with laptops and controllers, create live sets and performances with

MP 4422	Sound Design	3 (1-4-4)
DJ techniques with laptops and controllers, to create live sets and performances with software such as Ableton.		
MP 4423	Microphone Techniques	3 (1-4-4)
Prerequisite:	MP 2400 Audio Fundamentals	
Introduction to audio recording throughout the uses of microphone and speaker, signal flow, mixer and control surface, A/D & D/A converter digital audio basics skill of recording audio with DAW, microphone techniques and basic live sound reinforcement.		
MP 4424	Music Production Skills	3 (1-4-4)
Advanced skills and techniques required for a music producer and a sound engineer		
MP 4432	Audio Recording	3 (2-3-4)
Characteristics types of microphone model based on its performance outcome, proper handling and setup, close and distant microphone placements for a wide variety of musical instruments, strategies for utilizing the recording environment, and managing the demands of complex recording sessions		
MP 4433	Mixing and Mastering	3 (2-3-4)
Skills in audio engineering and understanding of mixing and mastering by using software application. The use of EQ, Effect, Signal Processor, Panning, and more advanced techniques including parallel compression.		
MP 4434	DaVinci Resolve	3 (2-3-4)
Functions of DaVinci Resolve from setup, video editing, color grading and export video		
MP 4435	Jingle Writing	3 (2-3-4)
The combination between music composition and music production skills for advertisement. To study how to create catchy, memorable tunes and lyrics for TV or radio commercials.		
MP 4436	Film Scoring	3 (2-3-4)
Three elements: the musical score, ambience music and sound effect. To study the composer's view and foley's to creating an aural mood for each scene, along with sound effects and dialogue.		
MP 4437	Reaper Plugin Programming	3 (2-3-4)
An introduction on programming skill, a basic skill set for the general-purpose scientific computing program Matlab and the Digital Audio Workstation program Reaper (along with an introduction to its JS scripting language for audio processing).		
MP 4441	Music Production Management	3 (3-0-6)
Prerequisite:	MP1400 Music Production Skills	
Encourage the conception, planning and execution of projects that make the best use of available resources in music production to achieve the desired outcome		

MP 4442	Music as Audio	3 (2-2-5)
Prerequisite:	MP1400 Music Production Skills	
Components of music mediated by recording, production, reproduction technology. Develop listening skills, and a systematic evaluation methodology, for identification and critique of audio recording and music production styles.		
MP 4443	Live Sound Engineering	3 (2-3-4)
Artistic and technical control of sound in the field of live musical performance. Analysing the practice of sound engineering through topics input/output, connectivity, microphone technique, fold back and monitoring, front-of-house and PA systems, dynamic processing, equalization and effects		
MS 1001	Major Instrument I	2 (1-2-3)
Development of performance techniques, music skills, and interpretation of fine art music upon student's area of expertise (instrumental / vocal).		
MS 1002	Major Instrument II	2 (1-2-3)
Prerequisite:	MS 1001 Major Instrument I	
Further development of performance techniques, music skills, and interpretation of fine art music based on improvement from the previous course (instrumental / vocal).		
MS 1003	Major Instrument III	2 (1-2-3)
Prerequisite:	MS 1002 Major Instrument II	
Further development of performance techniques, music skills, and interpretation of fine art music based on improvement from the previous course (instrumental / vocal).		
MS 1004	Major Instrument IV	2 (1-2-3)
Prerequisite:	MS 1003 Major Instrument III	
Further development of performance techniques, music skills, and interpretation of fine art music based on improvement from the previous course (instrumental / vocal)		
MS 1005	Major Instrument V	2 (1-2-3)
Prerequisite:	MS 1004 Major Instrument IV	
Further development of performance techniques, music skills, and interpretation of fine art music based on improvement from the previous course (instrumental / vocal).		
MS 1006	Major Instrument VI	2 (1-2-3)
Prerequisite:	MS 1005 Major Instrument V	
Further development of performance techniques, music skills, and interpretation of fine art music based on improvement from the previous course (instrumental / vocal).		
MS 1007	Major Instrument VII	2 (1-2-3)
Prerequisite:	MS 1006 Major Instrument VI	
Further development of performance techniques, music skills, and interpretation of fine art music based on improvement from the previous course (instrumental / vocal).		
MS 1101	Music Concentration I	3 (3-0-6)
Development of musicianship and music entrepreneurship skills upon student's area of interest.		

MS 1102	Music Concentration II	3 (3-0-6)
Further development of musicianship and music entrepreneurship skills upon student's area of interest.		
MS 1103	Music Concentration III	3 (3-0-6)
Further development of musicianship and music entrepreneurship skills upon student's area of interest.		
MS 1104	Music Concentration IV	3 (3-0-6)
Further development of musicianship and music entrepreneurship skills upon student's area of interest.		
MS 1105	Music Concentration V	3 (3-0-6)
Further development of musicianship and music entrepreneurship skills upon student's area of interest.		
MS 1106	Music Concentration VI	3 (3-0-6)
Further development of musicianship and music entrepreneurship skills upon student's area of interest.		
MS 1300	Introduction to Musical Skills	1 (1-2-0)
Basic of performance techniques, music skills, and understanding of fine art music upon student's area of expertise (vocal / instrumental).		
MS 1301	Music Skills I	2 (1-2-3)
Development of performance techniques, musicianship, and interpretation of fine art music upon student's area of expertise (vocal/instrumental).		
MS 1302	Music Skills II	2 (1-2-3)
Prerequisite:	MS 1301 Music Skills I	
Further development of performance techniques, musicianship, and interpretation of fine art music based on improvement from the previous course. (vocal/instrumental)		
MS 2001	Minor Instrument I	2 (1-2-3)
Prerequisite:	MS 1002 Major Instrument II	
Secondary instrument of applied music at the beginning level. Development of performance techniques, music skills, and interpretation of fine art music upon student's area of expertise of their minor instrument's choice (instrumental / vocal).		
MS 2002	Minor Instrument II	2 (1-2-3)
Prerequisite:	MS 2001 Minor Instrument I	
Further development of minor instrument's performance techniques, music skills, and interpretation of fine art music based on their minor instrument's choice and the improvement from the previous course (instrumental / vocal).		
MS 2003	Minor Instrument III	2 (1-2-3)
Prerequisite:	MS 2002 Minor Instrument II	
Further development of minor instrument's performance techniques, music skills, and interpretation of fine art music based on their minor instrument's choice and the improvement from the previous course (instrumental / vocal).		

MS 2004	Minor Instrument IV	2 (1-2-3)
Prerequisite:	MS 2003 Minor Instrument III	
Further development of minor instrument's performance techniques, music skills, and interpretation of fine art music based on their minor instrument's choice and the improvement from the previous course (instrumental / vocal).		
MS 2301	Music Skills III	2 (1-2-3)
Prerequisite:	MS 1302 Music Skills II	
Further development of performance techniques, musicianship, and interpretation of fine art music based on improvement from the previous course (vocal / instrumental).		
MS 3001	Songwriting I	2 (1-2-3)
Prerequisite:	MU 2131 Basic Songwriting	
Create strong melodies that hit the audience. Focus on rhythm, showing how it can support the lyric's meanings. How the use of pitch can fit a melody, making it natural to sing, and supporting the lyric's expressive goals and possibilities. Write melodies over common modes and chords, and develop these ideas into complete songs.		
MS 3002	Songwriting II	2 (1-2-3)
Prerequisite:	MS 3001 Songwriting I	
Create ideas, find the right words to express those ideas, and organize rhythms and rhymes into each song section. Understand the elements of structure and the process of building great lyrical ideas that go along with melodies into complete songs		
MS 3003	Songwriting III	2 (1-2-3)
Prerequisite:	MS 3002 Songwriting II	
Advanced Harmony techniques such as chord progressions, modulation and cadences to craft the essential dramatic impact of the songs with effective settings for melodic, harmonic, and lyrical ideas. Crafting song sections and complete songs the way hit writers do.		
MS 3101	Music Composition I	2 (1-2-3)
Exploration and development of composition techniques and classical improvisation used in fine art composition. Creation of short compositions in various media.		
MS 3102	Music Composition II	2 (1-2-3)
Prerequisite :	MS 3101 Music Composition I	
Further development of the techniques and classical improvisation used in fine art composition. Creation of short compositions in various media.		
MS 3103	Music Composition III	2 (1-2-3)
Prerequisite :	MS 3102 Music Composition 2	
Further development of the techniques and classical improvisation used in fine art composition. Creation of short compositions in various media.		
MS 3401	Advanced Production Skills I	2 (1-2-3)
An individual study to exchange ideas and creative skills in music production for develop theoretical and practical of audio production for contemporary music.		

MS 3402	Advanced Production Skills II	2 (1-2-3)
An individual study to exchange ideas and creative skills in music production for develop theoretical and practical of audio production for contemporary music.		
MS 3403	Advanced Production Skills III	2 (1-2-3)
An individual study to exchange ideas and creative skills in music production for develop theoretical and practical of audio production for contemporary music.		
MS 4960-99	Selected Topic [in Interdisciplinary Studies]	3 (3-0-6)
Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements.		
MS 9001	Independent Music Study I	2 (1-2-3)
Specific study or research on a topic or area of interest in music beyond available courses.		
MS 9002	Independent Music Study II	2 (1-2-3)
Prerequisite :	MS 9001 Independent Music Study I	
Specific study or research on a topic or area of interest in music beyond available courses.		
MS 9003	Independent Music Study III	2 (1-2-3)
Prerequisite :	MS 9002 Independent Music Study II	
Specific study or research on a topic or area of interest in music beyond available courses.		
MS 9004	Independent Music Study IV	2 (1-2-3)
Prerequisite :	MS 9003 Independent Music Study III	
Specific study or research on a topic or area of interest in music beyond available courses.		
MU 0111	Ear Training I	1 (0-2-1)
Prerequisite:	Satisfaction score on theory entrance examination	
Development of basic ear training skills through singing and dictation – songs, intervals, scales, chords, elementary harmonic motion and rhythmic patterns.		
MU 0112	Ear Training II	1 (0-2-1)
Prerequisite:	MU 0111 Ear Training I	
Further development of ear training skills through increasing complex singing and dictation exercises.		
MU 0123	Keyboard Skills	Non-Credit
Keyboard techniques and chord voicing, the understanding of more concepts including scales and chord progressions.		
MU 0124	Chorus I	Non-Credit
Development of group singing skills, basic vocal production and techniques, sight-singing skills, practice variety of choral works in unison, cannon, and simple arrangement.		
MU 0201	Music Ensemble I	1 (0-2-1)
Development of techniques as band or ensemble players and study of selected repertoire to performance standard.		

MU 0202	Music Ensemble II	1 (0-2-1)
Prerequisite:	MU 0201 Music Ensemble I	
Further development of ear training skills through increasing complex singing and dictation exercises.		
MU 0203	Music Ensemble III	1 (0-2-1)
Prerequisite:	MU 0202 Music Ensemble 2	
Further development of ear training skills through increasing complex singing and dictation exercises.		
MU 0204	Music Ensemble IV	1 (0-2-1)
Prerequisite:	MU 0203 Music Ensemble 3	
Further development of ear training skills through increasing complex singing and dictation exercises.		
MU 0301	String Ensemble I	3 (1-4-4)
Practices and performances of beginning string chamber music literature.		
MU 0302	String Ensemble II	3 (1-4-4)
Prerequisite :	MU 0301 String Ensemble I	
Further development of Practices and performances of beginning and intermediate string chamber music literature.		
MU 1001	Music Appreciation	3 (3-0-6)
Elements of music, developing an appreciation of the fine art and aesthetics of human performances, and recognizing music through listening techniques.		
MU 1002	Pop Music Appreciation	3 (3-0-6)
Elements of popular music, developing an appreciation of the fine art and aesthetics of human performances, and recognizing music through listening techniques.		
MU 1131	Pop Songwriting (Thai)	3 (3-0-6)
Creative story telling through melody and basic lyrics writing, fundamental music theory, selecting scales, chords, and harmony design to create standard pop songs.		
MU 1132	Pop Songwriting (English)	3 (3-0-6)
Creative story telling through melody and basic lyrics writing, fundamental music theory, selecting scales, chords, and harmony design to create standard pop songs.		
MU 1133	Italian Language and Culture through Music	3 (3-0-6)
Basic Italian language and culture with music from all era as an educational tool for students with little or no previous knowledge.		
MU 1161	Event Management	3 (3-0-6)
Develop and deliver music related-events. Develop budgets, work breakdown structures, and gain an insight into risk mitigation and contingency planning. Key elements and processes involved in format and venue selection, event registrations, catering, accommodation, transport, theming, security, entertainment and stakeholder management.		

MU 1200	Music and Choreography	3 (1-4-4)
The design of dance movement through variety styles of music, combined with performance and theatrical skills in both planned and improvisation, Elements of dance fundamentals and the expression of music through movement.		
MU 1231	History and Literature of Music	3 (3-0-6)
Overview history and Literature of music from different periods with emphasis on stylistic traits and theoretical concepts of the eras.		
MU 1234	Musical Structure and Analysis	3 (2-3-6)
Basic concepts of music, notation, major and minor scales, key signatures, intervals and their inversions, tempo, rhythm, meter, division of the beat, simple and compound time signatures, triads, seventh chords, inversions and their symbols, and diatonic chords in major and minor keys.		
MU 1261	Concert Management I	3 (3-0-6)
Launch and run a successful live music venue and the essential components of a successful concert: from assembling a management team to alternative streams of income with effective merchandising, promotion techniques and sponsorships.		
MU 1262	Concert Management II	3 (3-0-6)
Further launch and run a successful live music venue and the essential components of a successful concert: from assembling a management team to alternative streams of income with effective merchandising, promotion techniques and sponsorships.		
MU 1263	Concert Management III	3 (3-0-6)
Further launch and run a successful live music venue and the essential components of a successful concert: from assembling a management team to alternative streams of income with effective merchandising, promotion techniques and sponsorships.		
MU 1301	Music Fundamentals I	3 (3-3-6)
Prerequisite:	MU 0020 Fundamentals of Music Theory OR Satisfaction score on theory entrance examination	
Fundamentals of music (scales, keys, intervals, chords, rhythm and meter) with an introduction to basic musical form, cadences, non-chord tones, modes, dominant and diatonic seventh chords, instrumental transposition, diatonic harmonic function, part-writing, harmonization and score analysis.		
MU 1302	Music Fundamentals II	3 (3-3-6)
Prerequisites:	MU 1301 Music Fundamentals I	
Chromatic harmonic function: secondary dominants, modulation, mode mixture and the Neapolitan chord. Further development of part-writing skills, harmonization, and score analysis.		
MU 1303	Music Fundamentals III	3 (3-0-6)
Prerequisite:	MU 1302 Music Fundamentals II	
Classic: Sixth chords, enharmonic functions, altered dominants, common-tone diminished seventh chords, chromatic mediants, coloristic chord successions and tonal harmony of the late 19th century. Further development of part-writing skills, harmonization and score analysis.		

MU 1304	Music Fundamentals IV	3 (3-0-6)
Prerequisite :	MU 1303 Music Fundamentals III	
Basic principles and techniques of 20th century art music: modes, artificial scales, free tertian and non-tertian harmony, polytonality, rhythmic methods, formal process, intervallic organization, serial procedures and an introduction to recent developments. Further development of score analysis skills and analytical skills required for non-tonal music		
MU 1958	Thongchai McIntyre Studies	3 (3-0-6)
History and song repertoires of Thongchai McIntyre. Analyze the content and composition of his music works from the past to the latest ones.		
MU 2002	Bodyslam Studies	3 (3-0-6)
History and song repertoires of Bodyslam. Analyze the content and composition of their music works from the past to the latest ones.		
MU 2161	Music Label Simulation I	3 (3-0-6)
The simulation of a music label to allow students to work in different jobs together such as songwriter, producer, creative, marketer, PR, sound engineer, and videographer.		
MU 2162	Music Label Simulation II	3 (3-0-6)
Further development on simulation of a music label to allow students to work in different jobs together such as songwriter, producer, creative, marketer, PR, sound engineer, and videographer.		
MU 2211	History of Thai Music	3 (3-0-6)
History of Thai Music, development of Thai musical genres, including historical background and political and cultural influences, growth of vocal and instrumental music, ethnomusicology, and characteristics of human life, composition of the Thai principal composers.		
MU 2221	Popular Music Literature	3 (3-0-6)
Survey of western popular music, popular music artists in different periods.		
MU 2332	Keyboard Skills	1 (0-2-1)
Keyboard techniques and chord voicing, the understanding of more concepts including scales and chord progressions		
MU 2333	Guitar Skills	1 (0-2-1)
Guitar techniques and chord voicing, right hand techniques, the understanding of more concepts including chord forms and chord progressions		
MU 2360	Basic Improvisation	1 (0-2-1)
Prerequisite:	MU 1302 Music Fundamentals 2	
Fundamentals of improvisation: techniques, scales, and analysis of classic solos in a variety of riffs and licks, approach to improvisation that applies to all styles and any instrument		
MU 2503	Chorus III	1 (0-2-1)
Prerequisite:	MU 1502 Chorus II	
Development of group singing skills, intermediate vocal production and techniques, sight-		

singing skills, and practice variety of choral works. Attending the choral concert and performing one major concert are required.

MU 2504 Chorus IV 1 (0-2-1)

Prerequisite: MU 2503 Chorus III

Development of group singing skills, advanced vocal production and techniques, sight-singing skills, and practice variety of choral works. Attending the choral concert and performing one major concert are required.

MU 2511 Vocal Diction I 1 (1-0-2)

Principles of accurate pronunciation in Italian.

MU 2512 Vocal Diction II 1 (1-0-2)

Prerequisite: MU 2511 Vocal Diction I

Principles of accurate pronunciation in Latin and English.

MU 2513 Vocal Diction III 1 (1-0-2)

Prerequisite: MU 2512 Vocal Diction II

Principles of accurate pronunciation in German

MU 2514 Vocal Diction IV 1 (1-0-2)

Prerequisite: MU 2513 Vocal Diction 3

Principles of accurate pronunciation in French.

MU 3121 Composition 3 (3-0-6)

Prerequisite: MU 1202 Music Fundamentals II

Creation of original music, development of compositional abilities, short composition writing, development of skills to analyze and evaluate music, diverse musical examples.

MU 3133 Commercial Songwriting 3 (3-0-6)

Prerequisite: MU 2131 Basic Songwriting

Create stunning melodic contents and lyrics that effect on consumer's decision making

MU 3134 Jingle Writing 3 (3-0-6)

Prerequisite: MB 2131 Basic Songwriting

Various aspects related to jingle writing – composition, product image, instrumentation, and timing.

MU 3135 Jazz Songwriting 3 (3-0-6)

Prerequisite: MB 2131 Basic Songwriting

Systematic approach to the art of composing in the jazz idiom. Exploration of melodic, harmonic, and rhythmic principles. Standard jazz song form. Analysis of jazz standards. Arranging considerations applied as a means of enhancing a composition. Projects for small jazz group required.

MU 3161 Collaborative Industry Project I 3 (3-0-6)

Individual or group projects relating to the management of music industry or artists, overall approach, with many specific business tools, to help successfully plan, execute, monitor, and complete music industry-related projects collaborative with externals

- MU 3162 Collaborative Industry Project II 3 (3-0-6)
Further development on individual or group projects relating to the management of music industry or artists, overall approach, with many specific business tools, to help successfully plan, execute, monitor, and complete music industry-related projects collaborative with externals.
- MU 3231 Music Genre Studies 3 (3-0-6)
Understand the background, concept and characteristic of different music genres.
- MU 3232 Hip-Hop and Rap Music 3 (3-0-6)
Hip-Hop and rap background, simple techniques for counting bars, song structure and beat selection in Hip-Hop and rap music. Techniques on freestyle, switch flows, rap over different beats, and never run out of bars.
- MU 3241 Vocal Literature 3 (3-0-6)
Prerequisite: Sophomore Standing
Survey of standard vocal repertoire from the High Baroque to the present with emphasis on stylistic and interpretive traits, pedagogical issues and repertoire selection, major composers and representative works.
- MU 3261 Senior Project I 3 (3-0-6)
Individual project on a topic or area related to the selected concentration
- MU 3262 Senior Project II 3 (3-0-6)
Implementation of the proposed project related to the selected concentration and preparation for the presentation.
- MU 3351 Conducting 3 (2-3-4)
Prerequisite: MU 1301 Music Fundamentals I
Physical skills involved with conducting using the baton and hands. Methods of choral and instrumental conducting will be explored and practiced using members of the class as performers as well as existing musical ensembles
- MU 3551 Acting for Musicians 3 (1-4-4)
Various methods to enhance acting skills for musicians while performing and entertaining on stage naturally.
- MU 3552 The Art of Guitar Making 3 (3-0-6)
An introduction to the design, construction, and maintenance of electric and acoustic guitars, learning through direct experience and engagement with practical projects.
- MU 3553 Artistic Development 3 (3-0-6)
Creativity as a habit, aesthetics, health as it relates to work, planning, and sustaining the artist career. Refining an artistic statement/purpose and planning the career in the music industry.
- MU 3602 Music Therapy 3 (3-0-6)
History of music therapy and how it works. Techniques used in the field, discipline's scientific basis, theoretical applications and the ties between music and different therapeutic treatment.

- MU 3603 Music, Health, and Well-being 3 (3-0-6)
 An introduction how music contributes to health and well-being, across a range of different cultural contexts and musical genres. Theories and research from interdisciplinary perspectives underpinning the notion of musical affordances in relation to health and well-being. Relationship between music, health and well-being through exploration of a range of practices and issues while taking human's diversity and perspective into consideration.
- MU 3604 Music and Gender Studies 3 (3-0-6)
 Explore the ways in which music reflects the issues of gender and sexuality in a variety of musical genres and perspectives.
- MU 3620 Music Therapy 3 (3-0-6)
 History of music therapy and how it works. Techniques used in the field, discipline's scientific basis, theoretical applications and the ties between music and different therapeutic treatment.
- MU 3701 Music Education Management 3 (3-0-6)
 Prerequisite: ME 2700 Introduction to Music Education
 Understand the relationship between music and mind, how music professionals and songwriters can create music that influences emotion, cognitive, personality, and behavior of the listener's perception.
- MU 3702 Music Curriculum and Instruction 3 (3-0-6)
 Prerequisite: ME 2700 Introduction to Music Education
 Principle of music curriculum, structure and elements of curriculum, philosophy, objective, content, activity, measurement and assessment, curriculum design, implementation, and revision music curriculum for the different context and trend.
- MU 3703 Methodology of Music Teaching 3 (3-0-6)
 Prerequisite: ME 2700 Introduction to Music Education
 Biography, philosophy, and principle of Kodaly, Dalcroze, Off, and other music method for vocal or instrumental, class observation and discussion based on music methodology.
- MU 3704 Music Teaching 3 (2-1-6)
 Prerequisite: ME 2700 Introduction to Music Education
 Music pedagogy, teaching strategy, teaching technique, repertoire and instructional materials for vocal or instrumental, design a short music course, write the study plan, class observation and class demonstration
- MU 4103 Form and Analysis 3 (3-0-6)
 Prerequisite: MU 1202 Music Fundamentals II
 Analytical study of various significant forms-Binary, Rounded Binary, Ternary, Rondo, Sonata, and Fugue, harmonic and melodic structures used in Western art and popular music.
- MU 4112 Arranging 3 (3-0-6)
 Prerequisite: MU 1202 Music Fundamentals II
 Techniques of arranging music for vocal / instruments for both small and large ensembles.

MU 4130	Music for Visual Media	3 (2-2-5)
Prerequisite:	MU 1202 Music Fundamentals II	
Exploration of the relationship between visual media and music. Discussion and analysis of the dramatic function of music in terms of mood and storytelling. Investigation of the essential writing techniques of visual media music. Applying the techniques to write the original music.		
MU 4131	Commercial Music Arranging	3 (2-2-5)
How to write the rhythm section for instrumentals and create rhythm pattern, adaptation of the melody and chords, intros and endings, articulations and dynamics		
MU 4223	Music in Human Life	3 (3-0-6)
Traditions, belief systems, and practices of world cultures with regards to music, comparative study, and analysis of the music of contrasting ethnic groups in relation to different social contexts; thematic musical styles in recordings along with traditional, religious, and cross-cultural issues in human life.		
MU 4539	Music Cognition	3 (3-0-6)
Understand the relationship between music and mind, how music professionals and songwriters can create music that influences emotion, cognitive, personality, and behavior of the listener's perception.		
MU 4545	Careers and Professions in Music	3 (3-0-6)
Preparation for students for internship, career path in the music and in-depth study of potential careers in the music.		
MU 4560	Music Entrepreneurship Seminar	Non-Credit
Selected issues in music entrepreneurship based on interest, research in the field of music business with content to be developed through primary research, visits to various businesses and personal interview		
MU 4750	Music Pedagogy	3 (3-0-6)
Prerequisite:	Sophomore Standing	
Basic information concerning appropriate teaching method, teaching strategy, technique development, teaching-learning psychology, performance practice, repertoire and instructional materials for vocal or instrument.		
MU 4901	Interdisciplinary Studies I	3 (3-0-6)
Specific study or research on a topic or area of interest in music or/and beyond available courses.		
MU 4902	Interdisciplinary Studies II	3 (3-0-6)
Prerequisite:	MU 4901 Interdisciplinary Studies I	
Specific study or research on a topic or area of interest in music or/and beyond available courses.		
MU 4903	Interdisciplinary Studies III	3 (3-0-6)
Prerequisite:	MU 4902 Interdisciplinary Studies II	
Specific study or research on a topic or area of interest in music or/and beyond available courses.		

MU 4904	Interdisciplinary Studies IV	3 (3-0-6)
Prerequisite:	MU 4903 Interdisciplinary Studies III	
Specific study or research on a topic or area of interest in music or/and beyond available courses.		
MU 4905	Interdisciplinary Studies V	3 (3-0-6)
Prerequisite:	MU 4904 Interdisciplinary Studies IV	
Specific study or research on a topic or area of interest in music or/and beyond available courses.		
MS 4960-99	Selected Topic [in Interdisciplinary Studies]	3 (3-0-6)
Special topics that are appropriate for detailed study and research. The topic selected depends on the students' needs and the instructors' requirements.		
MU 7001-6	Concert and Seminar Attendance I-VI	Non-Credit
Attendance weekly or as announced in related music events recognized or organized by the School of Music, including master classes, concerts, recitals, workshops, seminar, and guest lectures.		
NEA 2001	Automotive Culture	3 (3-0-6)
History of automotive culture such as history, logo, models, sports, styling, colors of domestic and foreign automotive, appearance and humanistic connotation; structure and performance of automotive; driving maintenance; relationship between cars and economy, transportation, environment and modern technology; impact of automotive industry on society, health, safety, law, culture, environment, and social development; car technology based on engineering capabilities and specific literacy.		
NEA 2101	Fundamentals of Automotive Engineering	3 (2-2-5)
Prerequisite:	BG 1216 Principles of Physics II	
Introduction to Automotive and the interaction between mechanical actuation and electronic control; early design evolution, evolution of engineering design; using of sensors in the system; case studies: simple subsystem integration; modern technologies, control, sensors, power supplies, controlled drives, basic embedded system for Automotive system, the need for a systems approach to engineering design.		
NEA 2501	Electric Circuits and Electronics	3 (2-2-5)
Circuit elements; node and mesh analysis; circuit theorems, resistance, inductance, capacitance; first and second order circuits; phasor diagram; AC power circuits. Semiconductor devices; device current-voltage and frequency characteristics; analysis and design of diode circuits; analysis and design of BJT, MOS, CMOS, and BiCMOS transistor circuits; operational amplifier and its applications.		
NEA 2502	Electric Machine System	3 (2-2-5)
Prerequisite:	NEA 2501 Electric Circuits and Electronics	
Principles of electromechanical energy conversion, induced force and voltage; principles of single/three-phase transformer; equivalent circuit; phasor diagram and calculations; principles of simple DC / AC machines; generators and motors with equivalent circuits and characteristics.		

NEA 2503	Sensor for Automotive Engineering	3 (2-2-5)
Prerequisite:	NEA 2501 Electric Circuits and Electronics	
Study and practice about sensors used with engines and motor such as Temperature sensors, Speed sensors, Air flow sensors, pressure sensors, Convenience kits such as Ultrasonics, Lidar, Radar, cameras, include checking by using OBD for analysis, and use a multimeter to analyse vehicle problem.		
NEA 3001	Design of Vehicle Structure	3 (2-2-5)
Structure of pure electric vehicle; structure of hybrid vehicle; principles of new energy vehicle power battery and management system, drive motor system, charging system, chassis system and electric system; standard procedures for assembling and disassembling of new energy vehicle' s componenets.		
NEA 3101	Automotive Chassis System	3 (2-2-5)
Prerequisite:	IE2101 Fundamental of Manufacturing Processes	
Working principle, construction, inspection and repairs of transmission system, driving system, steering system and braking system of new energy vehicle; proficiency in using the correct tools and standard procedure for new energy vehicle.		
NEA 3201	Automotive Electrical System	3 (2-2-5)
Prerequisite:	NEA 2501 Electric, Electronics and Drive System	
Knowledge of interpreting circuit diagram; analysis of using multimeter and oscilloscope; troubleshooting circuit common faults in automotive power supply system, starting system, power window system, power seat system, power mirror system, central locking system, wiper and washer system, air conditioning system, lighting and signaling systems.		
NEA 3301	Introduction to Hybrid and Electric Vehicle	3 (2-2-5)
Prerequisite:	NEA 2101 Fundamentals of Automotive Engineering	
Hybrid vehicle systems; power sharing device; reduction gear set; high voltage battery; power control unit; inverter motor and generator; high voltage battery cooling system; refrigerant gas compressor electric system; motor brake system; electric power steering system.		
NEA 3401	Integrated Vehicle Control Technology	3 (2-2-5)
Prerequisite:	NEA 2101 Fundamentals of Automotive Engineering	
Master the maintenance, fault diagnosis, safety standards and repair skills of the whole vehicle control system; electric vehicle sensors, actuators, central control unit, vehicle lights, vehicle's comfort system, and communication system; vehicle networks; technology update advancement in industry; carrer development in new energy vehicle industry.		
NEA 4001	Commercial Vehicles	3 (3-0-6)
System design, design layout, standards rules and regulation for commercial vehicles such as pick-up truck, trailers and buses. Design and specify of transmission and drivelines, suspension, steering and brake system.		
NEA 4301	Electric Drive, Power Transmission and Control System	3 (2-2-5)
Prerequisite:	NEA 3201 Automotive Electrical System	
Electric drive system; structure and working principle of power transmission motor system, motor controller, and cooling system; maintenance, adjustment and tuning of power transmission motor system, motor controller, and cooling system.		

NEA 4401	Energy Charging	3 (2-2-5)
Prerequisite:	NEA 3201 Automotive Electrical System	
Charging technology of new energy vehicles; types of chargers; handling of charger technology; assembly, disassembly, installation and debugging of charging equipment; maintenance of faults in the onboard charging system.		
NEA 4404	Energy Storage and Battery Management System	3 (2-2-5)
Prerequisite:	NEA 4401 Energy Charging Technology	
Working principle, structural, routine inspection, fault diagnosis, maintenance, replacement of new energy vehicle power batteries and battery management system (BMS); Safety awareness and operation of handling high voltage electrical system and emergency measure in case of battery failure; battery technology and lifespan; hands-on ability of energy storage related to new energy vehicle.		
NEA 4501	Inspection and Problem Analysis for new energy Vehicle	3 (2-2-5)
Prerequisite:	NEA 3401 Integrated Vehicle Control Technology NEA 4301 Electric Drive, and Power Transmission System	
Structure, principles and interrelationship of new energy vehicle's components such as batteries, motors, electronics control unit; inspection techniques covering battery performance testing, motor performance testing and electronics control unit testing; fault diagnosis and repair skills of the common faults in new energy vehicle; innovation mindset and problem-solving abilities in new energy vehicle industry.		
NEA 4601	Electric Vehicle Maintenance	3 (2-2-5)
Prerequisite:	NEA 3401 Integrated Vehicle Control Technology NEA 4301 Electric Drive, and Power Transmission System	
Maintenance skills of inspection, maintaining and replacing of battery packs, motor, control system and cooling system; safety awareness when performing maintenance; mitigating potential safety risks; preliminary of fault prevention and troubleshooting; environment awareness on handling waste batteries and hazardous material on new energy vehicle.		
NEA 4901	New Energy Automotive Engineering Project I	3 (0-6-3)
Prerequisite:	Completion of 80 Credits	
Study and development in New Energy Automotive Engineering; project report, project presentation.		
NEA 4902	New Energy Automotive Engineering Project II	3 (0-6-3)
Prerequisite:	NEA 4901 New Energy Automotive Engineering Project I	
Continuation of work done in New Energy Automotive Engineering Project I. project report, project presentation.		
NEA 4903	Advanced topics in New Energy Automotive Engineering	3 (3-0-6)
Prerequisite:	Completion of 70 credits with the consent of the Chairperson	
Advanced topics in the field of New Energy Automotive Engineering.		
NEA 4904	Special Problems in New Energy Automotive Engineering	3 (3-0-6)
Prerequisite:	Completion of 70 credits with the consent of the Chairperson	
Topics of current interest in the field of New Energy Automotive Engineering.		

NEA 4907	Industrial Work Experience I	3 (at least 160 hrs)
Prerequisite:	With the consent of the Chairperson	
Engineering internship in industries, private enterprises, government agencies, or academic institutes under supervision of experienced engineers in order to gain real-world working experience from the assignment, internship report for at least 160 hours.		
NEA 4908	Industrial Work Experience II	3 (at least 160 hrs)
Prerequisite:	With the consent of the Chairperson	
Engineering internship in industries, private enterprises, government agencies, or academic institutes under supervision of experienced engineers in order to gain real-world working experience from the assignment, internship report for at least 160 hours.		
NGE 0110	First Aid and Basic Life Support (For Non-Nursing Students)	3 (3-0-6)
Basic human structures and functions related to first aid including drug allergies; respiratory, hematology, neurological, integumentary, musculoskeletal, and cardiovascular problems; and basic life support, as well as first aid and basic life support practice		
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior (For Non-Nursing students)	3 (3-0-6)
An overview of current trends of the tobacco consumption and its epidemic, individual and public impacts of tobacco and nicotine product use, principal health effects of both combustible and non-combustible tobacco and nicotine products, factors affecting tobacco use among adolescents and young adults, trends in tobacco industry marketing and tactics in promoting tobacco and nicotine use, tobacco control policy, legal action, and tobacco endgame strategies, tobacco cessation techniques, and tobacco control related innovative media and health education project design.		
NGH 1001	English for Effective Communication	3 (2-3-6)
English communicative skills: listening, speaking, reading, and writing essential for every day interactions		
Course Learning Outcomes (CLOs):		
CLO1: Demonstrate effective verbal and non-verbal communication skills in academic and professional contexts.		
CLO2: Apply appropriate language structures and strategies to enhance clarity and coherence in spoken and written communication.		
NGH 1002	English for Health and Wellness Professionals	3 (2-3-6)
Development of essential English communication skills for health and wellness professionals, with a focus on patient interactions, interdisciplinary collaboration, and academic writing. Enhancing confidence in medical terminology and professional discourse within global healthcare settings.		
Course Learning Outcomes (CLOs):		
CLO1: Communicate effectively in English using appropriate medical and wellness terminology in professional settings.		
CLO2: Demonstrate the ability to write reports, patient documentation, and professional correspondence in English.		
CLO3: Engage in meaningful discussions and interdisciplinary collaboration in English.		

NGH 2001 Integrated English Skills 3 (2-3-6)
Enhancing listening, speaking, reading, and writing skills through integrated language learning approaches. Developing fluency, accuracy, and confidence in using English for academic, professional, and everyday communication.
Course Learning Outcomes (CLOs):
CLO1: Apply integrated English language skills in academic and professional contexts.
CLO2: Demonstrate fluency and accuracy in spoken and written communication.
CLO3: Utilize appropriate language strategies for effective cross-cultural communication.

NGH 1003 Equality, Diversity, and Inclusion 3 (3-0-6)
Exploration of key concepts in equality, diversity, and inclusion (EDI) within social, professional, and healthcare settings. Examining systemic barriers and strategies for fostering inclusive and equitable environments.
Course Learning Outcomes (CLOs):
CLO1: Analyze the impact of systemic inequalities on different populations in various contexts.
CLO2: Develop strategies to promote inclusivity and diversity in professional and social settings.
CLO3: Apply ethical and culturally sensitive approaches to address discrimination and bias.

NGH 1004 Psychology and Mental Well-being in Modern Society 3 (3-0-6)
Examination of the role of resilience in mental well-being through psychological theories, coping strategies, and stress management techniques. Developing emotional intelligence and adaptive skills to thrive in a rapidly changing world.
Course Learning Outcomes (CLOs):
CLO1: Explain key psychological theories related to resilience and mental well-being.
CLO2: Apply evidence-based coping strategies to enhance mental health and stress management.
CLO3: Develop self-awareness and emotional regulation skills to promote resilience.

NGH 1101 The Science of Happiness and Well-Being 3 (3-0-6)
Exploration of psychological, biological, and social factors that contribute to happiness and well-being. Examining scientific approaches to positive psychology, emotional resilience, and strategies for enhancing life satisfaction.
Course Learning Outcomes (CLOs):
CLO1: Explain key theories and scientific findings related to happiness and well-being.
CLO2: Apply evidence-based strategies to enhance personal and societal well-being.
CLO3: Analyze the role of positive psychology in improving mental health and quality of life.

NGH 1102 Cultural Perspectives in Health and Wellness 3 (3-0-6)
An Investigation of the influence of cultural beliefs, traditions, and values on health and wellness practices. Comparing global health systems and examining culturally sensitive approaches to healthcare and well-being.
Course Learning Outcomes (CLOs):
CLO1: Analyze the impact of cultural beliefs and practices on health and wellness.
CLO2: Compare health and wellness perspectives across different cultures.
CLO3: Apply culturally competent approaches to health promotion and healthcare delivery

- NGH 2101 Fitness, Exercise, and Longevity 3 (3-0-6)
Understanding the role of physical activity in health, disease prevention, and longevity. Exploring evidence-based exercise strategies to optimize physical fitness and overall well-being.
Course Learning Outcomes (CLOs):
CLO1: Explain the physiological and psychological benefits of regular exercise.
CLO2: Design effective fitness plans for promoting health and longevity.
CLO3: Apply exercise science principles to improve physical performance and well-being.
- NGH 2102 Technology and Innovation in Healthcare 3 (3-0-6)
An exploration of emerging technologies and innovations shaping modern healthcare. Examining digital health solutions, artificial intelligence, and medical advancements that enhance patient care and healthcare delivery.
Course Learning Outcomes (CLOs):
CLO1: Analyze the impact of emerging technologies on healthcare systems and patient outcomes.
CLO2: Evaluate the role of artificial intelligence, digital health, and telemedicine in modern healthcare.
CLO3: Apply innovative healthcare solutions to improve efficiency and accessibility.
- NGH 2103 Health and Wellness Through the Arts 3 (3-0-6)
Exploring the role of creative arts in promoting physical, emotional, and mental well-being. Examining therapeutic applications of music, visual arts, and movement in healthcare and wellness settings.
Course Learning Outcomes (CLOs):
CLO1: Explain the connection between artistic expression and health outcomes.
CLO2: Analyze the therapeutic benefits of various art forms in healthcare and wellness.
CLO3: Apply creative arts-based approaches to enhance mental and emotional well-being.
- NSC 1201 Dimensions of Health, Wellness, and Resilience 3 (3-0-6)
Exploring the multifaceted dimensions of health, wellness, and resilience from an integrative and holistic perspective enables the development of a foundational understanding of physical, mental, emotional, social, and spiritual well-being, while examining the factors that influence overall health and longevity.
CLO 1: Analyze key concepts of health, wellness, and resilience by integrating scientific principles and holistic approaches to promote overall well-being.
CLO 2: Apply critical thinking skills to evaluate and implement evidence-based strategies for enhancing resilience and mental well-being in diverse populations.
- NSC 1202 Global Health and Wellness Trends 3 (3-0-6)
Examining global health and wellness trends, with a focus on emerging challenges, innovations, and the impact of social, economic, and technological factors on well-being, fosters a cross-cultural, evidence-based understanding of global health dynamics, emphasizing preventive care, digital health, and policy interventions.
CLO 1: Analyze global health trends and their impact on population well-being using evidence-based approaches.
CLO 2: Apply scientific reasoning and critical thinking to evaluate healthcare policies, digital innovations, and wellness strategies in diverse global contexts.

NSC 1203	Human Anatomy and Physiology	3 (2-2-5)
A foundational understanding of human anatomy and physiology, exploring the structure and function of major organ systems, with an emphasis on physiological processes, homeostasis, and the interconnections between body systems in maintaining health. Integrating scientific reasoning, laboratory practice, and clinical applications enhances comprehension of normal body functions and their relevance to healthcare and wellness. CLO 1: Explain the structure and function of major human organ systems and their role in maintaining homeostasis. CLO 2: Apply scientific reasoning and laboratory techniques to analyze physiological processes and their implications for health and disease.		

Exploring fundamental principles of disease prevention and health promotion, with an emphasis on risk reduction, lifestyle interventions, and public health strategies. Examining evidence-based approaches to prevent illness and enhance well-being at both individual and community levels. Integrating scientific reasoning, behavior change theories, and policy frameworks supports the development of effective health promotion programs.

CLO 1: Analyze key principles of disease prevention and health promotion, integrating scientific knowledge to enhance public health outcomes.

CLO 2: Apply critical thinking and evidence-based strategies to design and evaluate health promotion initiatives in diverse populations.

Examining the social determinants of health and wellness, exploring how cultural, economic, and societal factors influence health behaviors and healthcare systems. Analyzing health disparities, patient-provider relationships, and global healthcare trends while applying sociological theories to real-world health challenges. Emphasizing critical thinking and cross-cultural perspectives to foster a deeper understanding of health and wellness in diverse populations.

CLO 1: Analyze the impact of social, cultural, and economic factors on health behaviors and healthcare systems.

CLO 2: Apply sociological theories and critical thinking to evaluate health disparities and wellness trends in different populations.

Exploring the fundamentals of health literacy, with a focus on effective communication, critical evaluation of health information, and informed decision-making. Developing skills to enhance personal and community health through accessible, evidence-based strategies.

CLO 1: Explain key concepts of health literacy and its role in promoting informed healthcare decisions.

CLO 2: Apply effective communication and critical thinking skills to assess and convey health information in diverse populations.

Introducing current topics in integrative health and wellness through discussions, case studies, and guest lectures. Engaging in critical analysis of holistic health approaches and emerging wellness trends

CLO 1: Identify key topics and emerging trends in integrative health and wellness.

CLO 2: Engage in discussions and critical analysis of holistic and evidence-based wellness

approaches.

NSC 1301 Seminar in Integrative Health and Wellness II 1 (1-0-2)
Building on foundational concepts in integrative health and wellness, focusing on in-depth discussions, case studies, and emerging research. Critically evaluating holistic health approaches and their applications in healthcare settings
CLO 1: Analyze current research and trends in integrative health and wellness.
CLO 2: Demonstrate reflective learning and critical thinking in discussions on holistic health approaches.

NSC 2201 Nutrition and Lifestyle Management 3 (3-0-6)
Examining the role of nutrition and lifestyle choices in promoting health and preventing disease. Exploring evidence-based dietary strategies, physical activity, and behavior modifications to enhance well-being
CLO 1: Explain the relationship between nutrition, lifestyle factors, and overall health.
CLO 2: Apply evidence-based approaches to design personalized nutrition and lifestyle interventions for health optimization.

NSC 2202 Intercultural Awareness and Competency 3 (3-0-6)
Exploring cultural influences on health beliefs, behaviors, and healthcare practices. Developing intercultural communication skills to enhance healthcare delivery in diverse populations
CLO 1: Analyze the impact of cultural diversity on health perceptions and healthcare practices.
CLO 2: Apply intercultural communication strategies to promote culturally competent healthcare interactions.

NSC 2203 Integrative and Complementary Health Approaches 3 (3-0-6)
Exploring integrative and complementary health practices, including traditional medicine, holistic therapies, and mind-body interventions. Evaluating their effectiveness in enhancing well-being and preventing disease
CLO 1: Explain key principles of integrative and complementary health approaches and their role in wellness.
CLO 2: Critically assess evidence-based complementary therapies for their application in healthcare and disease prevention.

NSC 2204 Design Thinking in Health and Wellness 3 (3-0-6)
Introducing design thinking principles to develop innovative solutions for health and wellness challenges. Applying user-centered approaches, creative problem-solving, and prototyping techniques to improve healthcare experiences
CLO 1: Apply design thinking principles to analyze and address health and wellness challenges.
CLO 2: Develop user-centered and innovative solutions for improving healthcare experiences.

NSC 2205 Public Health and Community Care 3 (3-0-6)
Exploring public health principles and community-based care strategies to improve population health. Examining disease prevention, health equity, and policy interventions to address community health challenges
CLO 1: Analyze public health frameworks and their role in promoting disease prevention

and health equity.

CLO 2: Apply evidence-based strategies to develop community health initiatives addressing diverse population needs.

NSC 2206 Health Policy and Global Health Systems 3 (3-0-6)
Examining health policies, governance, and global healthcare systems, focusing on their impact on public health outcomes. Analyzing policy frameworks, healthcare access, and strategies for improving health systems worldwide
CLO 1: Analyze health policies and global health system structures to understand their impact on healthcare delivery.
CLO 2: Evaluate policy solutions and healthcare models to enhance health equity and system efficiency.

NSC 2207 Introduction to Evidence-Based Strategies 3 (3-0-6)
 to Optimize Health, Happiness and Well-being
Exploring evidence-based approaches to enhancing health, happiness, and overall well-being. Examining scientific research on lifestyle interventions, mental resilience, and holistic health strategies to promote long-term wellness
CLO 1: Explain evidence-based principles for optimizing health, happiness, and well-being.
CLO 2: Apply scientific reasoning to evaluate and implement wellness strategies for improving quality of life.

NSC 2301 Seminar in Integrative Health and Wellness III 1 (1-0-2)
Continuing the exploration of integrative health, emphasizing critical discussions, case studies, and research analysis. Engaging with experts and exploring innovative approaches to holistic health and wellness
CLO 1: Evaluate advanced topics and current research in integrative health and wellness.
CLO 2: Apply critical thinking and collaborative discussion skills to analyze holistic health interventions.

NSC 2302 Seminar in Integrative Health and Wellness IV 1 (1-0-2)
Providing an advanced exploration of integrative health and wellness, focusing on critical evaluation of case studies, research findings, and real-world applications. Engaging in discussions, debates, and reflective learning to deepen understanding of holistic health approaches
CLO 1: Critically assess emerging trends and research in integrative health and wellness.
CLO 2: Demonstrate independent learning and analytical skills in evaluating holistic health interventions.

NSC 2303 Science of Aging: Health, Longevity and Vitality 3 (3-0-6)
Exploring the biological, psychological, and social aspects of aging, focusing on strategies to promote longevity and vitality. Examining evidence-based approaches to healthy aging, disease prevention, and lifestyle interventions to enhance quality of life in older adults
CLO 1: Analyze the physiological, psychological, and social factors influencing aging and longevity.
CLO 2: Apply evidence-based strategies to promote health, vitality, and disease prevention in aging populations.

NSC 2304	Comprehensive Geriatric Assessment and Personalized Care Planning	3 (2-2-5)
Focusing on the principles and techniques of comprehensive geriatric assessment (CGA) to evaluate the medical, functional, psychological, and social aspects of aging. Developing personalized care plans to optimize health outcomes and improve quality of life for older adults		
CLO 1: Conduct comprehensive geriatric assessments to evaluate physical, cognitive, and social well-being in older adults.		
CLO 2: Develop personalized, evidence-based care plans to enhance health, independence, and quality of life in aging populations.		
NSC 2305	Cybersecurity and Data Privacy in Healthcare	3 (3-0-6)
Examining cybersecurity principles and data privacy regulations in healthcare, focusing on protecting patient information and ensuring secure digital health systems. Exploring cybersecurity threats, ethical considerations, and compliance frameworks such as HIPAA and GDPR in healthcare settings		
CLO 1: Analyze cybersecurity risks and data privacy challenges in healthcare environments.		
CLO 2: Apply security best practices and legal frameworks to protect patient data and ensure compliance in digital health.		
NSC 3201	Law and Ethics in Health and Wellness	3 (3-0-6)
Examining legal and ethical principles in healthcare and business, focusing on patient rights, professional responsibilities, and policy regulations. Analyzing ethical dilemmas and legal frameworks that impact healthcare decision-making and practice		
CLO 1: Explain key legal and ethical principles governing healthcare practices and policies.		
CLO 2: Apply ethical reasoning and legal knowledge to analyze healthcare challenges and decision-making.		
NSC 3202	Leadership and Healthcare Management	3 (3-0-6)
Developing leadership principles and management strategies in healthcare settings. Developing skills in decision-making, team leadership, and organizational efficiency to improve healthcare delivery and patient outcomes		
CLO 1: Analyze leadership theories and management strategies applicable to healthcare organizations.		
CLO 2: Apply leadership and problem-solving skills to enhance healthcare operations and team performance.		
NSC 3203	Workshop I	Non-Credit
Individual/group project on an area or a topic of interest		
Course Learning Outcomes (CLOs):		
CLO1: Develop an innovative healthcare project proposal using evidence-based practices and creative problem-solving strategies.		
CLO2: Apply design thinking and technology-driven solutions to address healthcare challenges and improve patient outcomes.		
NSC 3204	Workshop II	Non-Credit
Prerequisite	NSC 3203 Workshop I	
Implementation of the proposed individual/group project on an area or a topic of interest		
Course Learning Outcomes (CLOs):		
CLO1: Analyze the impact of emerging technologies on healthcare systems and patient		

outcomes.

CLO2: Evaluate the role of artificial intelligence, digital health, and telemedicine in modern healthcare.

CLO3: Apply innovative healthcare solutions to improve efficiency and accessibility.

NSC 3301 Functional Nutrition for Healthy Aging and Longevity 3 (3-0-6)

Exploring the role of functional nutrition in promoting healthy aging and longevity. Examining the impact of diet on aging-related diseases, metabolic health, and overall well-being while developing evidence-based nutritional strategies for aging populations

CLO 1: Analyze the relationship between nutrition, aging, and the prevention of age-related diseases.

CLO 2: Apply evidence-based nutritional strategies to optimize health and longevity in aging populations.

NSC 3302 Rehabilitation and Active Aging: Restoring Mobility and 3 (2-2-5)
Independence

Exploring rehabilitation strategies and active aging interventions to restore mobility, prevent disability, and enhance independence in older adults. Learning evidence-based approaches to physical therapy, assistive technology, and functional movement training to improve quality of life in aging population.

CLO 1: Analyze the principles of rehabilitation and active aging to support mobility and independence in older adults.

CLO 2: Apply evidence-based rehabilitation techniques to enhance physical function and prevent age-related mobility impairments.

NSC 3303 Brain Health, Cognitive Wellness, 3 (2-2-5)
and Dementia Prevention

Examining the factors influencing brain health and cognitive function, with a focus on dementia prevention and cognitive wellness strategies. Exploring neurobiology, lifestyle interventions, and therapeutic approaches to support brain aging and reduce cognitive decline

CLO 1: Analyze the physiological and environmental factors affecting brain health and cognitive function.

CLO 2: Apply evidence-based strategies to promote cognitive wellness and prevent dementia in aging populations.

NSC 3304 Chronic Disease Management and 3 (2-2-5)
Lifestyle Medicine in Older Adults

Exploring strategies for managing chronic diseases in older adults using lifestyle medicine approaches. Examining the role of nutrition, physical activity, stress management, and behavioral interventions in preventing and managing age-related conditions such as cardiovascular disease, diabetes, and osteoporosis

CLO 1: Analyze the impact of chronic diseases on aging populations and the role of lifestyle medicine in disease prevention and management.

CLO 2: Apply evidence-based lifestyle interventions to support chronic disease management and improve health outcomes in older adults.

NSC 3305 Smart Hospitals and Healthcare Automation 3 (2-2-5)

Exploring smart hospital technologies and automation in modern healthcare systems. Examining innovations such as AI-driven patient care, robotics, IoT-enabled medical

devices, and automated workflows, focusing on their impact on efficiency, patient outcomes, and healthcare management

CLO 1: Analyze the role of smart hospital technologies and automation in improving healthcare delivery.

CLO 2: Evaluate the benefits and challenges of healthcare automation in optimizing patient care and hospital operations.

NSC 3306 Human-Centered Design and UX in Digital Health 3 (2-2-5)

Exploring human-centered design (HCD) principles and user experience (UX) strategies in digital health solutions. Creating patient-friendly healthcare technologies with a focus on usability, accessibility, and engagement to enhance healthcare experiences

CLO 1: Apply human-centered design principles to develop user-friendly digital health solutions.

CLO 2: Evaluate the impact of UX design on patient engagement, accessibility, and healthcare outcomes.

NSC 3307 Blockchain and Emerging Technologies in Healthcare 3 (3-0-6)

Exploring blockchain and other emerging technologies in healthcare, focusing on their applications in data security, patient records management, supply chain tracking, and telemedicine. Analyzing how these technologies enhance efficiency, transparency, and security in modern healthcare systems

CLO 1: Analyze the role of blockchain and emerging technologies in improving healthcare security, interoperability, and efficiency.

CLO 2: Evaluate the benefits, challenges, and real-world applications of blockchain and emerging digital innovations in healthcare.

NSC 3401 Wellness Coaching and Behavior Change 3 (3-0-6)

Exploring the principles of wellness coaching and behavior change, focusing on motivational techniques, lifestyle interventions, and evidence-based coaching models. Developing skills to guide individuals in achieving sustainable health and wellness goals through personalized coaching strategies

CLO 1: Analyze key theories and techniques of wellness coaching and behavior change in health promotion.

CLO 2: Apply coaching strategies and behavior change models to support individuals in achieving long-term health and wellness goals.

NSC 3402 Business and Entrepreneurship in Wellness 3 (3-0-6)

Exploring business strategies and entrepreneurial principles in the wellness industry. Examining market trends, business models, financial planning, branding, and regulatory considerations for launching and managing wellness enterprises

CLO 1: Analyze key business and entrepreneurial strategies for developing successful wellness ventures.

CLO 2: Develop a business plan or entrepreneurial concept for a wellness-related product or service based on market needs and industry trends.

NSC 3403 Healing Environments and Sustainable Health Practices 3 (3-0-6)

Exploring the design and impact of healing environments and sustainable health practices on well-being. Examining evidence-based environmental factors, biophilic design, and eco-friendly health solutions that promote physical, mental, and emotional wellness

CLO 1: Analyze the principles of healing environments and their effects on health and well-being.

CLO 2: Evaluate sustainable health practices and environmental design strategies that enhance wellness in healthcare and community settings.

NSC 3404 Culinary Medicine for Aging Populations 3 (3-0-6)

Exploring the role of nutrition and culinary medicine in promoting healthy aging and preventing age-related diseases. Learning evidence-based dietary strategies, functional foods, and meal planning techniques tailored for older adults to support longevity and well-being

CLO 1: Analyze the impact of culinary medicine and nutrition on aging, disease prevention, and overall health.

CLO 2: Apply evidence-based dietary and meal-planning strategies to enhance nutrition and well-being in aging populations.

NSC 3405 Digital Therapeutics and Mobile Health Applications 3 (2-2-5)

Exploring digital therapeutics and mobile health (mHealth) applications, focusing on their role in disease prevention, management, and patient engagement. Analyzing AI-driven interventions, mobile health monitoring, and regulatory considerations in the rapidly evolving digital healthcare landscape

CLO 1: Analyze the principles, benefits, and challenges of digital therapeutics and mobile health applications in modern healthcare.

CLO 2: Evaluate the effectiveness and ethical considerations of digital health solutions for disease management and patient-centered care.

NSC 4201 Internship in Health, Wellness, and Technology Industry 0 (240 hrs)

Applying hands-on experience in the fields of healthcare, wellness, and digital health technology through this industry-based internship. Applying theoretical knowledge, developing practical skills, and gaining insights into industry best practices in health innovation, patient care, and wellness solutions through supervised training in professional settings

CLO1: Apply knowledge of health, wellness, and technology in a real-world industry setting.

CLO2: Demonstrate professional competencies, adaptability, and ethical practices in a workplace environment.

NSC 4301 Empowering Caregivers: Family Support and Aging Well Strategies 3 (3-0-6)

Exploring the role of caregivers in supporting aging individuals, focusing on family dynamics, caregiver well-being, and strategies for aging well. Examining best practices in caregiving, stress management, and community resources to enhance the quality of life for both caregivers and older adults

CLO 1: Analyze the physical, emotional, and social challenges faced by caregivers in aging populations.

CLO 2: Apply evidence-based strategies to support caregivers and promote aging well through family and community-based interventions.

NSC 4302	Assistive Technologies and Smart Living for Seniors	3 (2-2-5)
Exploring the role of assistive technologies and smart living solutions in enhancing the independence and quality of life of older adults. Examining innovations such as wearable health monitors, home automation, mobility aids, and AI-driven healthcare applications tailored for aging populations		
CLO 1: Analyze the impact of assistive technologies and smart living solutions on aging and independent living.		
CLO 2: Evaluate and apply technology-based interventions to support seniors' health, mobility, and daily living.		
NSC 4303	Compassionate Care: Palliative, Hospice and End-of-Life Management	3 (2-2-5)
Exploring the principles of palliative care, hospice care, and end-of-life management, focusing on compassionate, patient-centered approaches. Examining pain management, ethical considerations, emotional support, and interdisciplinary care strategies to enhance the quality of life for patients and families facing terminal illness		
CLO 1: Analyze the principles and best practices of palliative, hospice, and end-of-life care to support patients and families.		
CLO 2: Apply compassionate, evidence-based approaches to managing physical, emotional, and ethical challenges in end-of-life care.		
NSC 4401	Mind-Body and Behavioral Health	3 (3-0-6)
Exploring the connection between mind-body interactions and behavioral health, focusing on stress management, psychological resilience, and holistic interventions. Examining evidence-based practices such as mindfulness, cognitive-behavioral techniques, and integrative therapies to enhance mental and emotional well-being		
CLO 1: Analyze the relationship between mind-body health, behavioral patterns, and psychological well-being.		
CLO 2: Apply evidence-based mind-body interventions to promote mental resilience and behavioral health.		
NSC 4402	Sports and Recreation for Health and Wellness	3 (3-0-6)
Exploring the role of sports, physical activity, and recreational programs in promoting health and well-being. Examining exercise science, fitness strategies, and recreational therapies to enhance physical, mental, and social wellness across different populations		
CLO 1: Analyze the impact of sports and recreational activities on physical health, mental well-being, and disease prevention.		
CLO 2: Apply evidence-based fitness and recreational strategies to promote wellness in diverse populations.		
NSC 4403	Neuroscience and Aging	3 (2-2-5)
Exploring the neuroscientific principles of aging, focusing on brain function, cognitive decline, and neurodegenerative diseases. Examining the biological, psychological, and environmental factors affecting brain aging and strategies for maintaining cognitive health and neuroplasticity		
CLO 1: Analyze the neurological changes associated with aging and their impact on cognitive and motor functions.		
CLO 2: Evaluate evidence-based strategies for promoting brain health, neuroprotection, and cognitive longevity.		

NSC 4404 Eco-Medical Tourism and Global Wellness 3 (3-0-6)
Exploring the emerging fields of eco-medical tourism and global wellness, focusing on sustainable health tourism, wellness retreats, and integrative medical travel. Examining the economic, cultural, and ethical aspects of wellness tourism and its impact on global health
CLO 1: Analyze the principles and trends in eco-medical tourism and their role in global wellness.
CLO 2: Evaluate the impact of sustainable wellness tourism on health promotion, economic growth, and cultural exchange.

NSC 4405 Biohacking and Personal Health Optimization 3 (3-0-6)
Exploring biohacking strategies and personalized health optimization, focusing on nutrition, technology, lifestyle modifications, and performance enhancement. Examining cutting-edge scientific approaches to improving longevity, cognitive function, and overall well-being
CLO 1: Analyze the principles and scientific basis of biohacking for health optimization and longevity.
CLO 2: Evaluate evidence-based biohacking strategies for enhancing physical and cognitive performance.

NSC 4406 Selected Topic in Aging 3 (3-0-6)
Conducting an independent study on a selected topic within health sciences, aging, digital health, or wellness management. Engaging in research, critical analysis, and project development under faculty supervision to explore innovative solutions and emerging trends in the chosen field
CLO 1: Conduct an in-depth investigation of a selected topic in health sciences, aging, digital health, or wellness management.
CLO 2: Apply critical thinking and research methodologies to analyze and present findings in an independent study project.

NSC 4426-4435 Selected Topic in Health Technology and Innovation 3 (3-0-6)
Adapting emerging and specialized topics in health technology and innovation, engaging with cutting-edge advancements in digital health, AI-driven healthcare, wearable devices, telemedicine, and other transformative technologies. Adapting course content to reflect the latest trends and research in health tech innovation
CLO1: Analyze emerging trends and innovations in health technology and their impact on healthcare systems.
CLO2: Evaluate the effectiveness and applicability of selected health technologies in addressing current healthcare challenges.

NUE 1401 Professional Etiquette and Personality Development 3 (3-0-6)
Concepts, principles, and strategy of building the image to portray professional, personality development, impression management, appropriate authentic self-presentation, and etiquette interactions in various contexts.

NUE 1402 Health and Wellness Development 3 (3-0-6)
Contemporary concepts, knowledge, approaches, applications and practices in the development of health and wellness. Personal and professional development including the health status and influences of lifestyle on current and future wellbeing.

NUR 1101	Biochemistry	2 (2-0-4)

Basic biochemistry for health science including enzymes, bioenergetics and thermodynamics, nucleic acids, carbohydrates, lipids, amino acids, proteins and the metabolisms, vitamins and minerals, hormone, gene regulation, and the clinical nursing application.

NUR 1102	Introduction to Nursing and Design Thinking	2 (2-0-4)

Exploration of the foundations of professional nursing, reflection on personal perspectives and experiences to understand one's own attitudes, beliefs, values, and fosterment of resilience and strategies for self-management and growth. Concepts of innovation, health technology, design thinking and leadership, development of knowledge, skills and values that foster personal capacity for innovation and leadership

NUR 1103	Psychology and Mental Health	3 (3-0-6)

Principles of psychology and mental health, related philosophies and theories, mental health promotion, prevention, and rehabilitation for individual, family and community, including evolution of mental health, psychiatric care and interventions in the 21st century. Exploring basic relaxation, and mindfulness strategies, stress management, as well as personality strengths for the development of mental health and wellbeing.

NUR 1104	Healthcare in the Digital Era	2 (1-2-3)

Introduction to the role and application of digital health technologies in global public health, healthcare, and nursing services, the design, development, and utilization of digital health in a context of healthcare.

NUR 1105	Anatomy and Physiology	5 (4-2-9)

Basic human structures and the interrelationship among sections of structures and systems including the functions of organs, mechanical adjustment of each system to maintain normal function and body balance, as well as lab experiments and the clinical nursing application.

NUR 2101	Microbiology and Parasitology	2 (1-2-3)

Essence of biology, classification of microorganisms that cause communicable diseases including bacteriology, mycology, virology, the mode of transmission and basic concept of immunology, the basic of parasitology, the morphology, life cycles of parasite, its related diseases and laboratory diagnosis.

NUR 2102	Pathophysiology	2 (2-0-4)

Basic concepts of pathophysiology, the alteration in functioning of human systems caused by the diseases including conditions typically observed during a disease state and the effect of diseases on the state of physiological balance.

NUR 2103	Pharmacology	3 (3-0-6)

The concept of pharmacokinetics, pharmacodynamics, toxicities, major pharmacologic agents used for treating common diseases and clinical toxicology or poisoning, calculation, pharmaceutical preparations, rational drug use, drug education including the National List of Drug, laws concerning controlled drugs with adverse reactions and the nursing implication.

NUR 2104	Nutrition for Health and Wellbeing	1 (1-0-2)
Concepts of nutrition and the promotion of long-term health and wellbeing, food-related policy and recommendations, evidence-based nutrition programs, nutrition across the lifespan, practical skills for making healthful dietary choices, health promotion strategies to help influence other people's food choices and apply these strategies to a specific modifiable chronic disease.		

NUR 2105	Entrepreneurship and Innovation	2 (2-0-4)
An introduction to the concept of entrepreneurship to understand the nature of entrepreneurship and the driving forces of health-related business success, the entrepreneurial design thinking process and business model for the development of health innovative and creative business model.		

NUS 1201 Health and Wellness Promotion through the Lifespan 2 (2-0-4)
An introduction to health promotion and wellness concepts and theories, healthy public policy, bio psycho-social development, approaches to health promotion, disease prevention and well-being and health promotion innovations across the lifespan.

NUS 2201	Scientific Nursing Approach and Holistic Health Assessment	2 (1-2-3)
Approach case scenarios through nursing process, practice of health assessment skill using holistic approach to identify potential health needs and development of nursing care plan		

NUS 2202	Foundation of Professional Nursing	4 (2-4-6)
Prerequisite:	NUR 1105 Anatomy and Physiology	
Foundation of the selected nursing theories, family-centered and holistic approaches using the nursing process as a framework for developing assessment skills, clinical reasoning, care planning, documentation, and abilities to provide safe ethical patient care for clients with episodic and chronic health challenges in a laboratory setting and simulation.		

NUS 2203	Alteration in Adult Health and Nursing I	2 (2-0-4)
Nursing management for adults with alterations in genetics, cell growth and differentiation, sensory system, integumentary system, respiratory system, digestive system, musculoskeletal system, and peripheral system, application of self-care, family-centered and holistic approaches in assisting adults to reach the optimal level of wellness.		

NUS 2204	Infant, Child, and Adolescent Nursing I	2 (2-0-4)
Principles of family-centered care and holistic approach for infant, child, and adolescent based on self-care and holistic approaches, growth and development assessment, well-baby care, complementary food and deviation of nutritional status, nursing care for infant, child, and adolescent experiencing minor health problems and injury in the hospital, family and community, including analysis of current adolescent issues and management.		

NUS 2205	Childbearing and Family Nursing I	3 (3-0-6)
Concepts of childbearing family nursing including contemporary issues and trends, basic concepts of reproductive health, nursing management for preconception and conception, prenatal development, physiological and psychological adaptation to pregnancy, fetal and maternal health assessment, health promotion and self-care during pregnancy, basic knowledge of labor and birth process, nursing management for the childbearing family during intrapartum and postpartum periods including breast-feeding.		

- NUS 2301 Clinical Practicum for Professional Nursing Foundation 2 (0-6-2)
 Prerequisites: NUS 2201 Scientific Nursing Approach and Holistic Health Assessment
 NUS 2202 Foundation of Professional Nursing
 Clinical nursing experiences in healthcare settings, application of basic nursing knowledge and skills in providing essential nursing care to meet the clients' needs including patient's safety and rational drug use, application of self-care and holistic approaches in nursing process, communication in nursing team and nursing documentation.
- NUS 2302 Infant, Child, and Adolescent Nursing Practicum I 2 (0-6-2)
 Prerequisite: NUS 2204 Infant, Child, and Adolescent Nursing I
 Clinical nursing experiences in health care settings and child development center based on self-care and holistic approaches, the knowledge integration of wellness, patient's safety and rational drug use, health promotion and illness prevention, pediatric assessment, growth and development and utilization of nursing process for caring infant, child, adolescent and family.
- NUS 3201 Research and Evidence Informed Nursing Practice 2 (1-2-3)
 Prerequisite: MA 1000 Business Mathematics and Statistics
 A hands-on approach to evidence-informed nursing practice including formulation of clinical questions, systematic searching of electronic databases, reading, interpreting and critically appraising health research. Development of thinking and information literacy skills necessary to be using evidence to inform clinical decision-making.
- NUS 3202 Alteration in Adult Health and Nursing II 2 (2-0-4)
 Nursing managements for adults with alteration in immune regulation and hematological system, endocrine system, reproductive system, urinary system, neurological system, and cardio vascular system, application of self-care, family-centered and holistic approaches in assisting adults to reach the optimal level of health and wellness.
- NUS 3203 Emergency Nursing (1-0-2)
 Nursing management for clients with emergency health problems, emergency and disaster situations, burns, trauma, management of violence against women and practice guidelines of forensic nursing.
- NUS 3204 Infant, Child, and Adolescent Nursing II 2 (2-0-4)
 Prerequisite: NUS 2204 Infant, Child, and Adolescent Nursing I
 Health problems of infant, child, and adolescent, nursing care for individual infant, child, adolescent, and family experiencing acute and chronic diseases based on self-care and family-centered approaches.
- NUS 3205 Gerontology Nursing 2 (2-0-4)
 Concepts and theories of aging, determinants of active aging, physiological and psychosocial functioning, spiritual needs, impact of developmental changes, illness, and dysfunction, including the nursing role, skills, and managements for older people at various levels – healthy older adult, older adult at risk, the older adult experiencing acute, chronic illness, and end-of-life care.
- NUS 3206 Community Focused Nursing 4 (4-0-8)
 Theories, ethics and evidence-informed approaches to community health nursing, principles of primary health care, population health, home health care, health maintenance and

promotion, disease and injury prevention including exploration of concepts of community-based assessment, biostatistics, epidemiology, pandemics and emerging diseases, health education, school health, dental health, occupational health, global health and public health laws and regulations.

NUS 3207 Bio-Behavioral-Psychiatric Nursing 2 (2-0-4)

Prerequisite: NUR 1103 Psychology and Mental Health

Principle of psychiatric nursing, development of acute and chronic mental disorders and alternation of behaviors in the mental health continuum, treatment modalities, psychopharmacology, care management through nursing process for mental health promotion, maintenance, and restoration of individuals, families, and communities.

NUS 3208 Childbearing and Family Nursing II 3 (3-0-6)

Prerequisite: NUS 2205 Childbearing and Family Nursing I

Identification of high risk pregnancy and nursing care for pregnancy at risk with special needs, nursing management for women with complications in antepartum, intrapartum and postpartum periods including obstetric procedures and emergency, newborn care including initial assessment, immediate and daily nursing care and abnormality detection, nursing management for high-risk neonate, birth injury, and neonatal resuscitation.

NUS 3301 Clinical Practicum in Adult Health Nursing I 3 (0-9-3)

Prerequisites: NUS 2203 Alteration in Adult Health and Nursing I

NUS 2301 Clinical Practicum for Professional Nursing Foundation

Clinical practice in caring of adults with alterations in genetics, cell growth and differentiation, sensory system, integumentary system, respiratory system, digestive system, musculoskeletal system, and peripheral system, application of self-care and holistic approaches through nursing process and comprehensive health approach including patient's safety and rational drug use.

NUS 3302 Childbearing and Family Nursing Practicum I 4 (0-12-4)

Prerequisite: NUS 2205 Childbearing and Family Nursing I

Application of self-care and holistic childbearing approaches, and nursing process in providing care for pregnant women and families during antepartum, intrapartum, normal labor, and 2- hour postpartum periods, health education to promote well-being for women, fetus and newborn including patient's safety and rational drug use, application of cognitive, affective, psychomotor skills, and critical thinking to practice in antepartum unit and labor room.

NUS 3303 Infant, Child, and Adolescent Nursing Practicum II 3 (0-9-3)

Prerequisites: NUS 2302 Infant, Child, and Adolescent Nursing Practicum I

NUS 3204 Infant, Child, and Adolescent Nursing II

Clinical practice in the caring of infant, child, adolescent and family experiencing health Problems both acute and chronic diseases based on self-care, family-centered and holistic approaches, including patient's safety and rational drug use, integrated knowledge of diseases and illness, utilizing nursing process for caring of infant, child, adolescent and family in healthcare settings.

NUS 3304 Clinical Practicum in Adult Health Nursing II 3 (0-9-3)

Prerequisites: NUS 2301 Clinical Practicum for Professional Nursing Foundation

NUS 3202 Alteration in Adult Health and Nursing II

Clinical practice in caring of adults with alterations in immune regulation and hematological

system, endocrine system, reproductive system, urinary system, neurological system, and cardiovascular system, the application of self-care conceptual framework, family-centered and holistic approaches through nursing process and comprehensive health approach including patient's safety and rational drug use.

NUS 3305 Gerontology Nursing Practicum 2 (0-6-2)

Prerequisite: NUS 3205 Gerontology Nursing

Clinical practice in caring of elderly people with bio-psycho-social changes and major health problems in healthy and ill elderly by application of self-care, family-centered and holistic approaches through nursing process and comprehensive health approach including patient's safety and rational drug use.

NUS 3306 Mental Health and Psychiatric Nursing Practicum 3 (0-9-3)

Prerequisite: NUS 3207 Bio-Behavioral Psychiatric Nursing

Integration of theory, concepts of communication, therapeutic use of self, group and milieu therapies in clinical practice at healthcare settings including patient's safety and rational drug use, promotion of mental health through primary prevention, intervention in maladaptive behaviors, utilization of the nursing process in care management and rehabilitation of chronic disorders for individual, family, and community.

NUS 4201 Therapeutic Health Assessment 2 (2-0-4)

Prerequisite: NUS 2201 Scientific Nursing Approach and Holistic Health Assessment

Concept of therapeutic health assessment, problem oriented medical diagnosis and nursing management, laboratory investigations and interpretation of the results, management of minor surgery, common drug usage according to the legal requirement in nursing practice and referral system.

NUS 4202 Leadership and Entrepreneurship in Nursing 2 (2-0-4)
and Inter professional Practice

An introduction to concepts of nursing leadership and entrepreneurship in healthcare, including health human resources, change management, fiscal planning and monitoring, inter professional and cross-sectoral collaboration, quality and safety processes, strategic planning, policy development, and aspects of healthcare planning and evidence-informed decision-making related to core functions of nursing leadership and entrepreneurial skills across diverse settings.

NUS 4203 Contemporary Issues in Healthcare Ethics and Law 2 (2-0-4)

An introduction to ethical theories, relevant research, and approaches to ethical decision-making to critically debate real world problems in health care, including an understanding of health law and health care ethics and of the relationship between law and ethics.

NUS 4204 Trends and Challenges in Nursing and Healthcare Forum 1 (1-0-2)

A forum for the analysis and development of seminar on the emerging trends, issues, and challenges in nursing, healthcare, and entrepreneurship contexts or other related fields. Embracing change and skills necessary for future success.

NUS 4301 Childbearing and Family Nursing Practicum II 3 (0-9-3)

Prerequisites: NUS 3208 Childbearing and Family Nursing II

NUS 3302 Childbearing and Family Nursing Practicum I

Application of holistic childbearing approach, self-care and nursing process for high risk pregnant women during antepartum and intrapartum periods including nursing

management for women during postpartum period, health education to prevent complications, promote well-being for women, fetus and newborn, family planning, application of cognitive, affective, psychomotor skills, and critical thinking including patient's safety and rational drug use to practice in antenatal care unit, labor room, and postpartum units.

NUS 4302 Community Focused Nursing Practicum 3 (0-9-3)

Prerequisite: NUS 3206 Community Focused Nursing

Application of theoretical knowledge and concepts of community focused nursing to work with individual, family and various groups of people in community settings, application of family nursing process in home care and long term care, practicing with interdisciplinary health care team and collaborative partnership with community people, using the complete community study process to identify health needs, health promotion, prevention of illness, and promotion of quality of life including tobacco control for entire community.

NUS 4303 Leadership and Healthcare Entrepreneurial Experience 3 (0-9-3)

Prerequisite: NUS 4202 Leadership and Entrepreneurship in Nursing and Inter professional Practice

Integration of prior learning focusing on collaboration with inter professional teams, systems thinking, healthcare system change, the influence of evidence, policy and legislation on decision making in complex health systems using a relational practice lens to enhance the relational capacity as leaders, entrepreneurs and innovators for 21st century healthcare.

NUS 4304	Therapeutic Health Assessment Practicum	2 (0-6-2)

Prerequisite: NUS 4201 Therapeutic Health Assessment

Clinical practice according to core competency of nurses in therapeutic through health assessment including patient's safety and rational drug use, history taking and physical assessment skills for clients in the primary healthcare settings, differential diagnosis, primary medical treatment, prevention, health promotion and referring clients for proper clinical management.

NUS 4305	Integrative Nursing Practicum in a Focused Area	3 (0-9-3)

Prerequisite: All nursing or parallel courses in the program

Comprehensive clinical experiences in a particular setting of practice, client population, or healthcare challenges based on students' interests, development of confidence and competence as students prepare to transition to the role of the Registered Nurse.

PD 1102	Introduction to Design Culture and Trend	3 (3-0-6)

Contemporary issues in design within the context of creative culture aiming to promote an understanding and appreciation of design works through an investigation of the development, role, and influences of designers on our society contributing to 6 significant trends: Social and Demographic Trends, Cultural Trend, Economical Trend, Political Trend, Technological Trend, Ecological Trend concluding as design trend forecasting.

PD 1103	Visual Design	3 (2-2-5)

Visual language, basic design elements, and design composition used in conveying desired messages of 2 dimensional designs with emphasis on actual application through a series of corresponding projects.

PD 1306	Design Principles	3 (2-2-5)
Design principles that focus on basic understanding of the interrelationship between form and function leading to attractive and functional designs, which include: Additive Design, Integrative Design, Integral Design, Sculptural Design, and Organic Design.		

PD 2304	Art and Design Appreciation	3 (3-0-6)
Chronological study of art and design throughout history from a range of places, time and culture through explorations, analyses, and experiential studies of art and design works in order for students to be imbued in the valuable development of mankind's visual culture.		

PDS 1111	History of Art and Design	3 (3-0-6)
Chronological exploration through the development of art and product design of the 19th and the 20th century emphasizing on design movements that contributed to global design development, from pre-modern to modern to postmodern design, expressions of innovative ideas and philosophical concepts within given cultural and political context.		

PDS 1122	User Factors and User Behavior Study	3 (2-2-5)
Exploration and application of physical, psychological, and social interaction aspects related to users especially in behavior, capabilities, limitations, and relationships to objects and space such as anthropometry, sensation and perception, ergonomics and experiential elements essential in designing for health, safety, and comfort leading to Universal design, taking into account the full range of human diversity, including physical, perceptual and cognitive abilities through research and behavior modeling technology.		

PDS 1211	Design Method	3 (2-2-5)
Fundamental Design focuses on creation and development of products, with an emphasis on form, functionality, usability, aesthetics, and user needs. This approach incorporates several commonly employed methods in product design, including several commonly employed methods in product design, including human-centered design, design thinking, lean design, and agile design.		

PDS 1212	Digital Design and Fabrication Technique	3 (2-2-5)
Creative use of 2D and 3D computer applications in aiding design process, presentation, as well as enabling designs to be realized in digital fabrication machines.		

PDS 1213	Model Making Technique	3 (2-2-5)
Study and application of manual and digital tools, techniques, and materials used in the fabrication of both study and prototype models for foam, plaster, wood, plastics, casting/ molding techniques.		

PDS 1224	Mechanical Engineering for Product Design	3 (2-2-5)
Basic structures of geometric forms, force and law of force that affect to Industrial design, techniques and mechanism in product system, power and results, reliability analysis and engineering errors occurs with the product, Industrial design from the application of appropriate engineering technology for product use and production.		

PDS 2215	Theory and Trend in Product Design	3 (2-2-5)
A multidisciplinary approach to the critical analysis of design theory, bridging architecture, product design, digital media, UX/UI, engineering, psychology, and sustainability highlighting Beaux-Arts symmetry, Arts & Crafts materiality, Bauhaus functionalism,		

Modernism's minimalism, Postmodernism's deconstruction, computational design and AI in Parametric and interactive systems, human-centered design, digital experience principles, circular design, speculative futures, and the role of UX/UI in virtual and augmented environments, fostering creativity and innovation, and anticipating emerging design paradigms through case studies, interdisciplinary collaborations, and projects to develop a critical, innovative, and future-oriented perspective on design's evolving landscape.

PDS 2216 Art and Science of Material Exploration 3 (2-2-5)
An exploration to understanding of qualifications and applications of basic materials focusing on natural materials, metallic materials and non-metallic materials, material testing including tools, techniques, methods, manufacturing processes that use human skills craftsmanship, mass-production, prototype embody and surface finishing and evaluation with field trips to manufacturing facilities in Thailand.

PDS 2321 Collaborative Design I 3 (2-2-5)
The integration between different roles of designed objects, spaces, and experience focusing on both internal and external collaboration and design execution with experts in the fields.

PDS 3217 Production and Manufacturing Processes Studies 3 (2-2-5)
Understanding of characteristics, properties, and qualifications of synthetic materials, newly invented material or recycled materials to replace depleting natural materials such as thermoplastic and thermosetting plastics, modular high molecular weight polyethylene, polyamide, polyacetals, polypropylene, polycarbonate, Teflon, glass, fiberglass, ceramic tiles, glazed silicate compounds such as cement, brick, sanitary tile, electrical insulation or chemical container, etc. as well as material testing methods leading to correct and suitable use for product design, including production technology: cutting, injection, casting, compression and surface painting technologies and prototyping for industrial production line with field trips to manufacturing facilities in Thailand.

PDS 3228 Professional Ethics for Design Entrepreneur 3 (3-0-6)
Ethical conducts of professionals in the product design industry: designing to benefit clients, users, ecosystem, culture, and profession; intellectual property rights (IPR) essentials: intellectual property law, conditions for protection, copyright ownership and incentives, permitted acts, and enforcement of copyright.

PDS 3239 Professional Practice in Design 0 (0-4-2)
A 320 working hours of professional training in the Product Design and related industry to expose.

PDS 3312 Collaborative Design II 6 (2-8-8)
Prerequisite: PDS 2321 Collaborative Design I
The course emphasizes collaboration and teamwork in driving investment projects and achieving business success. It focuses on promoting collaborative efforts between designers and both internal and external organizations, encouraging engagement through diverse perspectives, expertise, and creativity to address the complex challenges faced by modern entrepreneurs. This is accomplished through co-design methodologies, the utilization of communication strategies, and project management techniques to work effectively with others within the entrepreneurial ecosystem and in partnership with the community.

PDS 3323	Collaborative Design III	6 (2-8-8)
Prerequisite:	PDS 2321 Collaborative Design I	
The integrated impact design studio emphasizes the production of marketing tools, where student learn to establish marketing concepts and explore business possibilities. This includes an understanding of investments in the production of various marketing media, as well as product launches. Students engage in project-based learning through group work that facilitates collaboration with professionals in the field, thereby gaining practical experience while working with enterprises.		
PR 3240	Public Relations Planning for Enterprise and Entrepreneur	3 (2-2-5)
Prerequisite:	CA 1101 Introduction to Strategic Communication CA 2100 Persuasive Communication	
Situation analysis for public relations campaign design and planning, secondary research And primary research, quantitative and qualitative research methods, public relations strategies and tactics for both corporate and entrepreneur levels to develop and execute public relations campaign.		
PR 3241	Experiential Event Management for Stakeholder Relations	3 (2-2-5)
Prerequisite:	CA 1101 Introduction to Strategic Communication	
Overview of experiential event management and planning, event stakeholder management, event planning process, event conceptualization, event operation, event logistics management, press event management in online and offline channels to be able to plan and design experiential events for various types of stakeholders.		
PR 3242	Influencer Relations in Digital Context	3 (2-2-5)
Prerequisite:	CA 1101 Introduction to Strategic Communication	
Technical and theoretical elements of influencer and celebrity relations, public relations-based approach to the topic of influencers, monetizing and managing influencers, influencer marketing, measuring influence, monitoring influencers, as well as application of digital media for public relations purposes of the various types of market to be able to engage and integrate influencers in communication plan.		
PR 3243	Content Creation in Public Relations Writing	3 (2-2-5)
Prerequisite:	CA 1101 Introduction to Strategic Communication ELE 1002 Communication English II	
Framework and principles of content creation in public relations writing, message design And planning, generating publicity, encouraging media coverage, news writing techniques for communicating in diverse platforms to generate newsworthy information and accomplish organization's goals.		
PR 3260-64	Selected Topics in Image Management and Public Relations Concepts	3 (3-0-6)
An exploration and study of selected topics in image management and public relations concepts. The topic will be announced semester by semester.		
PR 3270-74	Selected Topics in Image Management and Public Relations Practices	3 (2-2-5)
Exposure and exploration of selected topics in public relations and image management		

practices. The topics will be announced semester by semester.

PR 3280 Data-based Content Strategy 3 (2-2-5)
Strategic data-based content planning which includes both theoretical and practitioner perspectives, how to optimize the own media outlets with content created for target stakeholders, including practical framework for implementing content strategy principles in various target audience to be able to create and plan content strategically with supportive data.

PR 3281 Public Relations Tools and Activities 3 (3-0-6)
Fundamental tools, techniques, and activities, such as social media engagement, community relations to attain various public relations objectives in different media areas, and how public relations practitioners can use public relations strategies and tactics in communication campaigns to build organizational image and achieve expected success.

PR 3282 Personal Branding and Image Management 3 (2-2-5)
Principles and techniques of personality development, personal image management and personal branding, appropriate authentic self-presentation, improvement of external image such as make-up, hairstyling, dressing, social communication through social events and interactions to advocate the students for applying knowledge in their daily routine and socialization.

PR 3283 Corporate Image and Social Enterprise 3 (3-0-6)
Principles of corporate image management, communication techniques that make favorable images for organizations, including organizational communication, organizational identity, image and reputation as well as the concept of corporate social responsibility, green communication with social responsibility for sustainable development, corporate social governance, and social enterprise to enhance the corporate image and manage corporate reputation.

PR 3284 Current Trends Analysis for Public Relations 3 (2-2-5)
Analysis of the current trends and situations for macro-environment structure, its relationship to media and individuals, and the implication of retrieved data from the current trends and situations analysis to utilize informative trends for public relations purposes.

PR 4240 Intercultural and International Communication 3 (3-0-6)
 in Global Market
Fundamental elements of intercultural and international communication, basic intercultural theories, socio-cultural influence, psycho-cultural influence, environmental influence, adjusting and developing the working style when cooperating in multi-culture society, case studies of intercultural and international public relations campaign as well as recommending effective international public relations techniques to achieve success in the future to open students' vision and experience of globalization.

PR 4241 Crisis Communication and Reputation Management 3 (3-0-6)
Nature of issues and crisis management from a strategic communication perspective, various issues, risks and crisis situations, current case studies on strategic issues, risks, and crisis communication methods, including how to develop a crisis communication plan in order to manage reputation and image of organization to improve learners' analytical thinking and problem solving skills.

PR 4242 Image Management and Public Relations Workshop 3 (2-2-5)
 Prerequisite: ELE 2000 Academic English
 PR 3240 Public Relations Planning for Enterprise and Entrepreneur PR 3241 Experiential Event Management for Stakeholder Relations PR 3243 Content Creation in Public Relations Writing A workshop training in image management and public relations under the supervision of the instructor.

SRX 0011 Overview of Entrepreneurship and Innovative Design Non-Credit
 A pre-session course designed to prepare students to successfully progress into the program, supporting the transition to the university life, and understand the overview and principles of the design and digital innovation.

SRX 1001 English for Effective Communication 3 (2-3-6)
 English communicative skills: listening, speaking, reading, and writing essential for every day interactions.

SRX 1002 English for Academic Purposes 3 (2-3-6)
 Prerequisite: SRX 1001 English for Effective Communication
 Vital English skills for effective task accomplishment relevant to learners' academic field: listening, speaking, reading, writing and presentation.

SRX 1003 Integrated English Skills 3 (2-3-6)
 Prerequisite: SRX 1002 English for Academic Purposes
 Integrated English skills essential for both academic and entrepreneurial competencies: project proposal and report writing, seminar presentation, and intercultural communication.

SRX 1101 Happiness Advantage 1 (1-0-2)
 The approach to pursuit of happiness from personal experience and professional goals. Basic principles of positive psychology with recent scientific studies on happiness. Practical applications of the science of happiness for human relationships, lifestyles, and thinking habits. Philosophical views of happiness and recent scientific discoveries on happiness.

SRX 1104 Designing Life with Passion 1 (1-0-2)
 Design thinking approach to discover a vision for a personal life and the future career and to get clear on a purpose for life. The uses of frameworks, tools, and a community of peers and experienced mentors working on variety of issues through assigned readings, reflections, and in-class exercises.

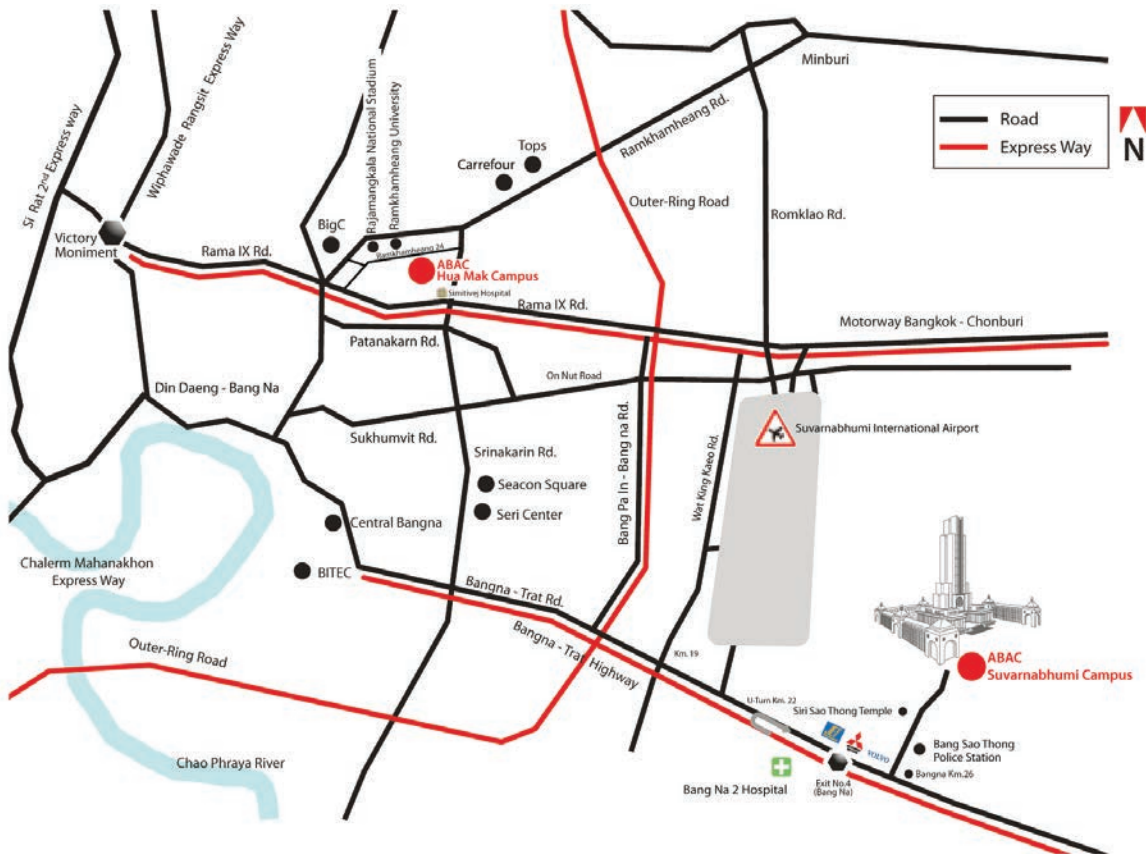
SRX 1201 Business Etiquettes and Personal/CEO Branding 2 (2-0-4)
 Development of individual strategy to build the image to portray professional. Major etiquette interactions in various contexts including networking, restaurants and social events, cellphone, voicemail and email, how to dress, job interview presentation and even international travel.

SRX 2101 Empathy and Customer Centric 2 (2-0-4)
 Customer empathy and the approach to meet their specific needs through communication to establish trust in customer-centric service via case studies, discussion and presentation. Principles of customer-centric service and the measurement to improve the overall service excellence.

- SRX 2111 Pitching and Storytelling 2 (2-0-4)
Development of skill sets in persuasive presentation via lectures, class exercises, workshops and presentation rehearsals of various lengths. Storytelling and presentation preparation with tools to craft effective arguments and ideas. Principles of communication for the attraction and likability through the understanding in self-concept, perception, listening, verbal and nonverbal communication, emotions, interpersonal relationships and respectful argument.
- SRX 2201 Legal Aspects in Business, IT, and Creative Industry 2 (2-0-4)
Legal issues associated with creative entrepreneurs; legal changes and challenges alert, real approach to legal matters between individuals' working procedure and stakeholders in the business world today, including national and international business, IT, intellectual property laws and ethics.
- SRX 2202 Well-being for Learning and Life 1 (1-0-2)
Principles and knowledge of health and well-being important in making informed choices about an individual's physical, mental, and emotional well-beings. Personal and professional development including the health status and influences of lifestyle on current and future well-being. Proactive strategies practical to everyday life. Access to resources and supporting network. The development of meaningful relationships and an inclusive sense of community.
- SRX 2211 Future Skill Forum 1 (1-0-2)
A forum for the analysis and development of seminar on the emerging trends, issues, and challenges in an entrepreneurship context or other related fields. Embracing change and skills necessary for future success.
- SRX 4400- 4499 Selected Topics in Music and Entertainment Business 3 (3-0-6)
Individual project on a topic or area related to music and entertainment business.
- TE 3102 Communication Networks and Transmission Lines 3 (3-0-6)
Prerequisite: EE 2201 Electric Circuits and
 EE 3301 Electromagnetic Fields
Wire and wireless communication; wire communication network; Y, Z, F, G, H matrix, relation; connection and basic circuits, network transformation, transmission quantities, signal transmission circuit techniques, wave filters, attenuator, impedance matching, transmission line theory, equation, solution for low, medium, high frequencies, primary and secondary constant; incident and reflected waves, standing wave ratio, line characteristics for open, short, terminated load, lossless, and lossy lines; reflections in time domain, bounce diagrams, near-end and far-end crosstalk, differential signaling, composite line, types of cable, and unshielded twisted pair, coaxial cable; current cable standards.
- TE 3301 Radio Wave Propagation 3 (3-0-6)
Prerequisite: EE 3301 Electromagnetic Fields
Basic Propagation Model; Ground wave propagation; sky wave propagation; space wave propagation; slow fading (shadowing); narrow band fast fading; wide band fast fading; cellular propagation.

TE 4111	Antenna Engineering	3 (3-0-6)
Prerequisite:	EE 3301 Electromagnetic Fields	
Basic definitions and theory; isotropic point source; power and field patterns; directivity and gain; efficiency, polarization; input impedance and bandwidth; Friis transmission equation, radiation from current elements; ground effects; radiation properties of linear, loop wire antennas; array antenna (two, N elements); Yagi-Uda and log-periodic antenna; aperture, horn antenna; microstrip antenna design; modern antennas with smart features (beamforming, reconfigurable) for wireless and satellite communications along with their characteristics and measurements.		
TE 4112	Optical Communications	3 (3-0-6)
Prerequisite:	TE 3000 Principles of Communications	
Cylindrical dielectric waveguides and propagating conditions; structure and types of optical fiber; optical fiber parameters; optical fiber production; optical cable types; optical transmitters; optical receivers; signal degradations, attenuation, and dispersion in fiber link; optical repeaters and amplifiers; link budget calculation; multiplexing in optical link system; introduction to FTTX.		
TE 4113	Digital Communication	3 (3-0-6)
Prerequisite:	TE 3000 Principles of Communications	
Review of probability and random process; signal space; minimum Nyquist bandwidth; signal detections; AWGN, digital modulation techniques, sigma-delta, performance analysis; synchronization; equalization; introduction of information theory; source coding; channel coding; multichannel and multicarrier systems; spread spectrum techniques; multipath fading channels.		
TE 4201	Communication Electronics	3 (3-0-6)
Prerequisite:	EE 2605 Engineering Electronics	
Design of radio-frequency amplifiers, signal amplifier, power amplifier, oscillator, wide-band amplifier, impedance matching, design techniques and equipment selection, special conditions in design including spectrum analysis.		
TE 4202	Communication Electronics Laboratory	1 (0-3-2)
Prerequisite or Co-requisite:	TE 4201 Communication Electronics	
Laboratory work to be done according to TE 4201 Communication Electronics Laboratory		
TE 4301	Principle of Telecommunications Policies	3 (3-0-6)
This course introduces fundamental of information and communications policies and regulations governing services such as Internet services, broadband applications, telephone, mobile, cable, and wireless and spectrum management. Students will learn key issues, principles, and practices in policy development emphasizing the intersection of technology, economics, and public policy.		
TH 1500	Introduction to Thai	3 (3-0-6)
Basic language used in everyday life, basic listening, speaking, pronunciation skills, grammatical forms of primary importance, reading short sentences and writing words.		
TH 1501	Introduction to Thai	3 (3-0-6)
Basic language used in everyday life, basic listening, speaking, pronunciation skills, grammatical forms of primary importance, reading short sentences and writing words		

TH 1502	Thai Language I	3 (3-0-6)
Prerequisite:	TH 1501 Introduction to Thai	
Listening and speaking skills in a variety of circumstances in everyday life to broaden basic vocabularies and grammar, reading simple texts, and writing short sentences		
TH 2501	Thai Language II	3 (3-0-6)
Prerequisite:	TH 1501 Thai Language I	
Complex grammatical structure, reading texts and dialogues concerned with everyday life and practice of writing essay.		
TH 2502	Thai Language III	3 (3-0-6)
Prerequisite:	TH 2501 Thai Language II	
Advanced grammar structure, reading texts and dialogues concerning Thai life and culture and practice of writing short articles.		
TH 3501	Advanced Reading	3 (3-0-6)
Prerequisite:	TH 2502 Thai Language III	
Development of reading skills, main ideas finding, facts and opinions analysis, author's viewpoint and intention analysis.		
TH 3502	Advanced Thai Writing	3 (3-0-6)
Prerequisite:	TH 2502 Thai Language III	
Development of writing skills, styles in the present-day Thai language both formal and informal, writing for presenting the viewpoint, analysis of effective writing, and practice various writings.		



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