

# LIST OF COURSES OFFERED, STUDENT EXCHANGE PROGRAMME

# MAE FAH LUANG UNIVERSITY



#### 1. Education System

- **1.1** Mae Fah Luang University employs the semester system, in which there are two regular, compulsory semesters in each academic year: the first semester and the second semester. Each semester comprises at least fifteen weeks of school and at least one week of final examinations. A six-week optional summer session may be offered after the second semester ends, with each of the available courses having the same number of class hours as that of a regular-semester course.
- **1.2** One academic year is equivalent to two regular semesters or two regular semesters plus one summer session.

#### 2. A credit

A credit is a measurement unit of education. The number of credits assigned to a course is based on the following criteria.

- **2.1** One hour of teaching or lecture per week throughout a regular semester, or a total of fifteen hours of teaching or lecture per regular semester, is equivalent to one credit.
- **2.2** A practicum, experiment or training which amounts to two to three hours per week throughout a regular semester, or a total of thirty to forty-five hours per regular semester, is equivalent to one credit.
- **2.3** An apprenticeship or field training which amounts to three to six hours per week throughout a regular semester, or a total of forty-five to ninety hours per regular semester, is equivalent to one credit.
- **2.4** A credit hour represents an amount of number of credits (Lecture Lab Self Study).

#### 3. Course Load

Exchange Student is eligible to enroll for a minimum of 9 (nine) credits but not exceeding 22 (twenty-two) credits in a regular semester and for a maximum of 9 (nine) credits in a summer session.

#### 4. Prerequisites

Some of the courses have pre-requisites and each school will indicate the pre-requisites in the list of courses for each semester. Students will need to ensure that they have fulfilled the pre-requisite requirement before registering for certain courses.

#### 5. Course Selection

An Exchange Students are required to select their courses prior to their arrival at MFU. A list of courses offered to exchange students will be available at the International Office of each exchange partner institution.

#### 6. Course Registration

An Exchange Students are required to complete a course registration form and to return it to the International Office before the semester start. In completing the course registration form, students are advised to pay serious attention to the following:

- Course Code
- Unit of each course
- Section

Changes in course registration can be made until the second week of the semester after which students are only allowed to withdraw from courses. A penalty of 50THB per day will be imposed to those who under certain circumstances, are required to register a new course/courses after the second week. Course withdrawal period ends on the fifth week of semester. Any request to drop a course/ courses after the fifth week has to be forwarded to the Vice President [Academic Affairs] for decision. If approved, students are allowed to drop the course[s].



#### **Student Exchange Programme**

#### 7. Class Attendance

A student must fulfill at least 80% of class attendance for a course in order to be eligible to sit the final examination. In case a student's class attendance does not reach 80% for a sound reason, the course instructor may consider the reason and allow the student to sit the final examination.

#### 8. Academic Evaluation

The evaluation result received by a student for each course shall be represented by a grade letter, which is translated to a grade point, as detailed below.

| Grade Letter | Meaning     | Grade Number |
|--------------|-------------|--------------|
| A            | Excellent   | 4.00         |
| B+           | Very Good   | 3.50         |
| В            | Good        | 3.00         |
| C+           | Fairly Good | 2.50         |
| С            | Fair        | 2.00         |
| D+           | Poor        | 1.50         |
| D            | Very Poor   | 1.00         |
| F            | Fail        | 0.00         |
| I            | Incomplete  |              |
| M            | Missing     |              |
| P            | In Progress |              |
| V            | Visitor     |              |
| W            | Withdraw    |              |

#### Table of Content

| School  | Page     |
|---|----------|
| School of Agro-Industry   |          |
| - Bachelor's degree, Food Science and Technology Programme                  | 1        |
| - Master's Degree, Food Science and Technology Programme                    | 5        |
| - Bachelor's degree, Postharvest Technology Programme                       | 6        |
| - Master's Degree , Postharvest Technology Programme                        | 6        |
| School of Cosmetic Science  |          |
| - Bachelor's degree, Cosmetic Science Programme                             | 7        |
| - Bachelor's degree, Beauty Technology                                      | 9        |
| School of Health Science  |          |
| - Physical Therapy Programme  | 10       |
| - Sport and Health Science Programme  | 10       |
| School of Information Technology  |          |
| - Computer Science and Innovation Programme                                 | 11       |
| - Information and Communication Engineering Programme                       | 11       |
| - Information Technology Programme  | 11       |
| - Multimedia Technology and Animation Programme                             | 12       |
| - Software Engineering Programme  | 12       |
| School of Law   |          |
| - Bachelor's degree, Law Programme  | 12       |
| School of Liberal Arts  |          |
| - Bachelor's degree, Thailand Language and Culture for Foreigner Programme  | 12       |
| - Bachelor's degree, English Programme                                      | 12       |
| - Master's Degree, English for Professional Development Programme           | 15       |
| - Doctorate Degree, English for Professional Development Programme          | 15       |
| School of Management  |          |
| - Bachelor's degree, Accounting Programme                                   | 16       |
| - Bachelor's degree, Business Administration Programme                      | 17       |
| - Bachelor's degree, Economic Programme                                     | 17       |
| - Bachelor's degree, Tourism Management Programme                           | 18       |
| - Master's degree, International Logistics and Supply Chain Management Prog | ramme 20 |
| School of Nursing   |          |
| - Bachelor's degree, Nursing Prorgramme                                     | 21       |
| School of Science   |          |
| - Bachelor's degree, Biotechnology Programme                                | 21       |
| School of Sinology  |          |
| - Bachelor's degree, Business Chinese Programme                             | 26       |
| - Bachelor's degree, Chinese Language and Culture Programme                 | 27       |
| School of Social Innovation   |          |
| - International Development Programme                                       | 27       |



| Bach | Bachelor's degree-School of Agro-Industry, Food Science and Technology Programme |  |   |           |                                     |  |
|------|--|--|---|-----------|-------------------------------------|--|
| No   | Course<br>Code   | Course Name  | Course Description:   | Credit    | Semester<br>Offered                 |  |
| 1    | 1403312  | ASEAN Foods  | Food cultures within the ASEAN communities; ASEAN food categories; basic food preparation techniques; popular dishes, recipes, ingredients, cooking techniques and dining etiquette of each ASEAN country; ASEAN food trends, current situation in ASEAN foods.   | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 2    | 1403101  | Career Skills<br>Development for<br>Food Industry<br>Professionals | Important skills in the food industries; importance and role of personality to workplace; development of creativity, critical thinking, communication, collaboration, problem solving, and leadership; lifelong learning skills; ethics in food industries; experience sharing; awareness of employer needs and expectations.   | 1 (0-3-1) | 2 <sup>nd</sup>                     |  |
| 3    | 1403440  | Kitchen Science  | Basic knowledge about food compositions and their functions in human body (carbohydrate, protein, and lipid); food color and flavor; chemicals in kitchen (basic food additives, food contaminants); changes occurred during food preparation, cooking and storage; food packaging and label; specific food groups (beverages, bakery, confectionery, etc.); simple experiments or demonstration related to food; current issues. | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 4    | 1408202  | Packaging<br>Technology  | Functions and importance of packaging; definition and system of packaging; package types; package materials and forming; packaging utilization in agro-industry; impact of packages to environments; eco-friendly packages; regulations and standards of packaging.   | 2(2-0-4)  | 1 <sup>st</sup>                     |  |
| 5    | 1404303  | Food Engineering 1   | Dimensions and units; process and process variables; thermodynamics; mass balance; energy balance; fluid mechanics; heat transfer; mass transfer.   | 3(2-3-5)  | 1 <sup>st</sup>                     |  |
| 6    | 1402313  | Food and Nutrition   | Composition of human body; digestive system; energy requirement; functions of macronutrients and micronutrients; food selection; health foods and functional foods; food guide pyramids; nutrient requirements of vulnerable groups; nutritional diseases and malnutrition; nutrient changes during food processing; nutrient labeling; food toxicity and food toxin.   | 2(2-0-4)  | 1st                                 |  |
| 7    | 1402303  | Food Chemistry   | Chemical composition of food; water, carbohydrates, lipids, proteins, vitamins and minerals; chemical and functional properties of these components; biochemical reactions affecting food qualities during processing and storage; food additives and contaminants; chemical hazards; pigments; enzymes in foods.   | 4(3-3-7)  | 1 <sup>st</sup>                     |  |
| 8    | 1403303  | Food Processing 2  | Food processing techniques including concentration, fermentation, enzyme technology, frying, baking and roasting, irradiation, microwave, extrusion, hurdle technology and novel processing methods, study tour.  | 3(2-3-5)  | 1 <sup>st</sup>                     |  |



| Bach | Bachelor's degree-School of Agro-Industry, Food Science and Technology Programme |  |   |            |                                     |  |  |
|------|--|--|---|------------|-------------------------------------|--|--|
| No   | Course<br>Code   | Course Name                                | Course Description  | Credit     | Semester<br>Offered                 |  |  |
| 9    | 1409301  | Food Plant<br>Management and<br>Sanitation | Plant design and layout; raw material forecast; production planning; inventory management; logistics system in food industry; good manufacturing practice in food industry; plant sanitation management i.e. cleaning, and disinfection; waste management in food industry; clean technology; environmental laws and regulations; study tour.   | 3(2-3-5)   | 1 <sup>st</sup>                     |  |  |
| 10   | 1403483  | Special Problem                            | Conduct a special problem in the topic related to food technology based on professional ethics, under guidance of supervision; submission of final report and oral presentation.  | 3(0-9-3)   | 1 <sup>st</sup>                     |  |  |
| 11   | 1404401  | Instrument and<br>Process Control          | Basic theory of analysis and design control system; sensor and instrumentation of process control e.g. temperature control, liquid level control; food process modeling; Laplace transform; dynamic behavior of first and higher order system; feedback control system; final control element; discrete state process control; programmable logic control (PLC).                        | 2(1-3-4)   | 1 <sup>st</sup>                     |  |  |
| 12   | 1405301  | Food Quality<br>Control and<br>Assurance   | Principles of quality control and assurance; quality factors and measurement; quality control of raw materials, process and finished products; principle and measurement of physical properties; quality control tools; total quality management; hazard analysis and critical control points; risk analysis; statistical for quality control; acceptance sampling; sensory evaluation. | 3(2-3-5)   | 1 <sup>st</sup>                     |  |  |
| 13   | 1403486  | Research Project in<br>Food Technology     | Research on current issues of food technology under guidance of supervisor; practical works on scientific process; report writing and oral presentation.  | 6(0-40-18) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |  |
| 14   | 1403405  | Bakery technology                          | Baker history and equipment; functionality and properties of the baking ingredients; production of the bakery products; factors affecting quality of bakery products; bakery products quality determination and control; storage and packaging; study tour.   | 3 (2-3-5)  | 1 <sup>st</sup>                     |  |  |
| 16   | 1403401  | Tea and coffee<br>technology               | Origin and history of tea and coffee; chemical composition; classification; harvesting; processing; blending: packaging; instrumentations and control systems; standards; health effects and safety considerations; product development and market trends; study tour.  | 3 (2-3-5)  | 1 <sup>st</sup>                     |  |  |



| Bach | Bachelor's degree-School of Agro-Industry, Food Science and Technology Programme |  |  |           |                     |  |
|------|--|--|--|-----------|---------------------|--|
| No   | Course<br>Code   | Course Name  | Course Description   | Credit    | Semester<br>Offered |  |
| 17   | 1403403  | Technology of meat<br>and poultry and<br>egg product | Physical and chemical composition of muscle food; slaughtering method; carcass trimming and appropriate storage method; pre- and post-mortem changes of meat animals; muscle quality and factors that influence to muscle quality changes; processing of muscle food products; poultry slaughter and controlling of fresh and frozen poultry meat quality; physical and chemical compositions of egg; egg storage and controlling of egg quality; processing of egg products; quality systems and standards in meat, poultry and egg products; study tour. | 3 (2-3-5) | 1 <sup>st</sup>     |  |
| 18   | 1403407  | Beverage<br>Technology                               | Types of beverages; water and water treatment; beverage compositions; processing and technologies, quality control and standard of alcoholic and non-alcoholic beverages; instant beverages; beverages from tea, coffee, cocoa and milk; labeling; waste utilization; study tour.  | 3(2-3-5)  | 2 <sup>nd</sup>     |  |
| 19   | 1401281  | Basic Technology of<br>Food Products                 | Classification, selection and storage of agricultural materials; packaging; basic technology of food products: fruit and vegetable products, beverages, cereal and bakery products, meat, egg and aquatic products, dairy products; principles of food quality control and food safety; cost calculation.  | 3(2-3-5)  | 2 <sup>nd</sup>     |  |
| 20   | 1403402  | Dairy Product<br>Technology                          | Importance of dairy industry; chemical composition and nutritional values of milk and milk products; processing technology of dairy products e.g. sterilized milk, pasteurized milk, sweetened condensed milk; principles of analysis of milk and dairy products; quality control of dairy products; packaging for dairy products; study tour.   | 3(2-3-5)  | 2 <sup>nd</sup>     |  |
| 21   | 1403304  | Fruit and vegetable<br>Technology                    | Compositions and nutritional value of fruits and vegetables; postharvest changes in physical, chemical and nutritional values; postharvest handling and storage; processing technologies: jam, jelly, dried fruit and vegetable, frozen fruit and vegetable, pickle, canned fruit and vegetable and fruit juice; minimally process; waste utilization; study tour  | 3(2-3-5)  | 2 <sup>nd</sup>     |  |
| 22   | 1402304  | Food Analysis  | Principles of food analysis; sampling; sample preparations; selection of method; data evaluation; method of food analysis using classical and instrumental methods; methods for analysis, separation and characterization of food compositions; analysis of specific food; study tour.   | 3(2-3-5)  | 2 <sup>nd</sup>     |  |



| Bach | Bachelor's degree-School of Agro-Industry, Food Science and Technology Programme |   |  |          |                     |  |
|------|--|---|--|----------|---------------------|--|
| No   | Course<br>Code   | Course Name   | Course Description   | Credit   | Semester<br>Offered |  |
| 23   | 1403481  | Seminar   | Preparation and presentation of current issues in food technology on theories, practices and applications; report writing and oral presentation based on professional ethics.  | 1(0-3-1) | 2 <sup>nd</sup>     |  |
| 24   | 1404304  | Food Engineering 2  | Application of food engineering principle in various unit operations in food processing such as thermal food processing; canning; drying; food chilling and freezing; size reduction and screening; mixing; mechanical separation; evaporation; extrusion; other processing methods, i.e. microwave heating, ohmic heating, high pressure processing and hurdle technology; shelf life of food products. | 3(2-3-5) | 2 <sup>nd</sup>     |  |
| 25   | 1404304  | Food Processing 2   | Food processing techniques including concentration, fermentation, enzyme technology, frying, baking and roasting, irradiation, microwave, extrusion, hurdle technology and novel processing methods, study tour.   | 3(2-3-5) | 2 <sup>nd</sup>     |  |
| 26   | 1401302  | Food Processing 1   | History and importance of food processing; types of foods; food deterioration; raw material preparation; processing techniques including thermal processing, chilling, freezing, dehydration, chemical preservation; study tour  | 3(2-3-5) | 2 <sup>nd</sup>     |  |
| 27   | 1405461  | Food Laws and<br>Standard   | Introduction to Thai law and legislation system; Food Act B.E. 2522; Notification of Ministry of Public Health according to Food Act B.E.2522; Label and nutritional label; Notification of Ministry of Commerce related to food; Factory Act B.E.2533; Labor Relation Act B.E. 2518; International standards: Codex, EU, ISO series, BRC, SQF, Kosher and Halal.  | 2(2-0-4) | 2 <sup>nd</sup>     |  |
| 28   | 1406301  | Food Product<br>Development and<br>Marketing                      | Product development system and process; forecast of needs and trends of new products; product idea generation and screening; prototype product development; product evaluation and launching; principle of marketing; marketing for new products; stability and shelf life of food.  | 3(2-3-5) | 2 <sup>nd</sup>     |  |
| 29   | 1401104  | Introduction to<br>Agro-Industry and<br>Agricultural<br>materials | Introduction to agro-industry; problems and utilization of agricultural raw materials; food security; characteristics and postharvest changes; postharvest management; marketing of agricultural products; study tour.   | 2(2-0-4) | 2 <sup>nd</sup>     |  |



| Mast | Master's degree-School of Agro-Industry, Food Science and Technology Programme |   |  |           |                     |  |
|------|--|---|--|-----------|---------------------|--|
| No   | Course<br>Code   | Course Name                                     | Course Description   | Credit    | Semester<br>Offered |  |
| 30   | 1402201  | Food Microbiology                               | Roles and importance of microorganism in foods; factors affecting microbial growth in foods, food microbial spoilage and prevention; foodborne microbial illness and toxins, indicator microorganisms for food quality and food safety; utilization of microorganisms in food industry; microorganisms in Asian fermented food; food microbiological standards; determination of microorganisms in foods by conventional and rapid methods; food microbiological problems in local community; current issues in food microbiology; study tour. | 4(3-3-7)  | 2 <sup>nd</sup>     |  |
| 31   | 1404101  | Mathematics<br>Concepts for Food<br>Engineering | Principles of mathematics concepts; algebra; data interpolation; graphs and curve fitting; calculus; problem solving concepts; principles of mass balances; problem solving in gases and vapors; problem solving in steam; principles of energy balances.  | 3(3-0-6)  | 2 <sup>nd</sup>     |  |
| 32   | 1403307  | Thai Traditional<br>Food Recipes                | Category of Thai traditional foods in each region; northern, north-eastern, middle and southern; indigenous raw materials, techniques and methods for traditional cooking; important Thai traditional food recipes; Thai traditional health food recipes; food safety concerns.  | 3(3-0-6)  | 2 <sup>nd</sup>     |  |
| 33   | 1406769  | Quality Control<br>Design in Food<br>Industry   | Overview of food quality, concepts of quality management systems; quality control; quality design; quality policy and business strategy; quality audit; quality cost, patterns of quality control and management in food industry, trends in food quality control.   | 2 (2-0-4) | 2 <sup>nd</sup>     |  |
| 34   | 1402814  | Functional Foods<br>and Nutraceuticals          | Definition and classification of functional foods and nutraceuticals; sources, and health benefits of bioactive components; nutraceutical extraction and isolation; impact of processing on the bioavailability of functional and nutraceutical ingredients in foods; novel technology to retain activity in the food; development and marketing of functional foods; efficacy and safety of functional foods and nutraceuticals; functional foods and nutraceuticals regulations.   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |
| 35   | 1404759  | Novel Food<br>Processing<br>Technologies        | Principles of recently developed food processing, including thermal processes e.g. ohmic heating, radio frequency, microwave, extrusion technology; non-thermal processes e.g. high pressure processing, pulse electrical fields, electron beam, osmotic treatment, membrane separation, 4supercritical fluid extraction, aseptic system; effect of processing on product properties and qualities.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |



| Bach | Bachelor's degree-School of Agro-Industry, Postharvest Technology Programme |   |   |           |                 |  |  |
|------|---|---|---|-----------|-----------------|--|--|
| 36   | 1402732   | Chemistry of Food<br>Macronutrients                     | Composition, structures, reactions and functional properties of proteins, carbohydrates and lipids in food systems; analytical techniques, isolating, identifying, quantifying of these compositions; mechanisms of the effect of processing and storage conditions on the properties of proteins, carbohydrates and lipids; interactions among these components in foods; roles on interactions on food stabilization; related current technology. | 3 (2-3-5) | 2 <sup>nd</sup> |  |  |
| 37   | 1403797   | Seminar 1   | Study and selection of currently interesting research issues in food science and technology or related area; oral presentation; report submission.  | 1 (1-0-2) | 2 <sup>nd</sup> |  |  |
| 38   | 1401240   | Crop Production   | Importance and source of agricultural materials; physical, chemical and microbial characteristics; analysis; sensory evaluation; deterioration of agricultural materials; roles of microorganism; principles of food preservation and processing.   | 3(2-3-5)  | 2 <sup>nd</sup> |  |  |
| 39   | 1408101   | Principle of<br>Packaging                               | Functions and importance of packaging; types of package; package materials and forming; packaging technology for agro-industry; roles of packaging on shelf life of product; eco-friendly package; regulations and standards of packaging   | 2(2-0-4)  | $2^{ m nd}$     |  |  |
| Mast | er's degre  | ee-School of Agro-                                      | Industry, Postharvest Technology Programme  |           |                 |  |  |
| 40   | 1407753   | Postharvest<br>Technology and<br>Innovation             | Postharvest losses of field crops and perishable crops; quality safety and standard; maturity indices; harvesting technology; cooling; postharvest treatment; storage and controlled atmosphere; packaging technology; cool chain management; transport and distribution; postharvest technology and innovation; eco-friendly technology.   | 3(2-3-5)  | 2 <sup>nd</sup> |  |  |
| 41   | 1407744   | Postharvest Management of Fruits and Vegetables         | Importance of economic fruits and vegetables; harvesting; quality and food safety management; packing house operation; packaging system; transport and distribution; tracking and traceability; value added products of fruits and vegetables; current issues.  | 3(2-3-5)  | $2^{ m nd}$     |  |  |
| 42   | 1407761   | Non-destructive<br>Evaluation for<br>Agricultural Crops | Conventional methods for produce evaluation; theory and principle of non-destructive evaluation; near infrared spectroscopy (NIR); magnetic resonance imaging (MRI); computerized tomography (CT); electrical impedance spectroscopy (EIS); acoustic technique; image analysis and machine vision system; applications for produce quality  | 3(2-3-5)  | 2 <sup>nd</sup> |  |  |
|      |   |   | attributes evaluation.  |           |                 |  |  |



| Bach | Bachelor's degree-School of Cosmetic Science, Cosmetic Science Programme |   |   |           |                     |  |
|------|--|---|---|-----------|---------------------|--|
| No   | Course<br>Code   | Course Name   | Course Description  | Credit    | Semester<br>Offered |  |
| 44   | 1703407  | Make-up<br>Application for<br>Personality                       | The studies of make-up application for personality; history of beautification, principle of color and make-up styling, structure and type shape of face organ, facial treatment, corrective facial structures makeup techniques, preparation of tools, equipment and product supplies for make-up an individual's personality, attitudes and values, character and ethical implication, individual exercises and practice sessions. The learning takes place in a friendly informal and comfortable atmosphere. | 3 (2-2-5) | 1 <sup>st</sup>     |  |
| 45   | 1701102  | Human Anatomy<br>and Physiology for<br>Cosmetic Science         | Structure, function, mechanism of human cells and integumentary system; the involved systems included nervous system, endocrine system, musculoskeletal system, lymphatic system and immunology, and cutaneous circulation system.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |
| 46   | 1701103  | Basic Laboratory<br>Skills for Cosmetic<br>Science              | Principles and basic skills for preparation of cosmetics required the special techniques; preparation of emulsions; trituration technique with mortar and pestle; preparation of hydrogels from various gelling agents; saponification reaction; plant extraction.  | 2 (1-3-3) | 2 <sup>nd</sup>     |  |
| 47   | 1701211  | Physical Chemistry<br>for Cosmetic<br>Science                   | Principles of physical chemistry; phase equilibria; thermodynamics and thermochemistry; solubility and distribution phenomena; interfacial phenomena; solutions, colloids and coarse dispersions; surfactants; polymers; rheological theory; application in cosmetic formulations; incompatibilities in cosmetics.  | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 48   | 1701212  | Cosmetic Raw<br>Materials and<br>Dosage Forms                   | Raw materials in cosmetics; cosmetic dosage forms: solid, semi-solid, liquid and aerosol; preparation of cosmetic dosage forms.   | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 49   | 1701220  | Cosmetic Safety   | Basic pharmacology; pharmacokinetics: absorption, distribution, metabolism and excretion; pharmacodynamics: receptors and physiological response; body immunology; cosmetic application and impact to human body; irritation reaction; allergic reaction; reaction related to ultraviolet radiation; safety testing; safe cosmetics and regulations.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |
| 50   | 1701315  | Microbial<br>Contamination and<br>Preservatives in<br>Cosmetics | Microorganisms and contamination in raw materials, manufacturing process and cosmetic products; effects of microbial contamination; cosmetic contamination control; types of preservatives; contamination and challenge tests; sanitation and sterilization in cosmetic manufacturing.  | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 51   | 1701316  | Fragrance and<br>Aromatic Science                               | Definition and history of aroma science; olfaction; fragrance chemistry; types, preparation and quality control of aroma materials; principle of aromatherapy and spa; formulation of spa and fragrance products.   | 4 (3-3-7) | 2 <sup>nd</sup>     |  |
| 52   | 1701317  | Cosmetic Science<br>for Hair and Nail<br>Care                   | Types of hair care cosmetics; raw materials; formulation; production; stability and efficacy evaluation of shampoo, hair conditioner, hair styling, hair coloring, anti-hair loss, anti-dandruff, and hair removal products; packaging; quality control; nail care cosmetics; production; formulation; stability evaluation of nail care products.  | 3 (2-3-5) | 2 <sup>nd</sup>     |  |



| Bach | Bachelor's degree-School of Cosmetic Science, Cosmetic Science Programme |   |   |           |                     |  |
|------|--|---|---|-----------|---------------------|--|
| No   | Course<br>Code   | Course Name                             | Course Description  | Credit    | Semester<br>Offered |  |
| 53   | 1701318  | Cosmetic Science<br>for Skin Care       | Skin care products; types and ingredients of skin care cosmetics; formulation and production of facial and body cleansing products, moisturizing products, nourishing and protecting products, whitening products, anti-aging products, sun screening products, anti-acne products, antiperspirant and deodorant products, oral care products and topical care products; packaging; physicochemical properties control. | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 54   | 1701319  | Color Cosmetic<br>Science               | Color chemistry and color theory; natural and synthetic organic and inorganic colorant and pigment; raw material use in makeup product; principles and formulation of color cosmetic development; quality control of color cosmetics.   | 4 (3-3-7) | 2 <sup>nd</sup>     |  |
| 55   | 1701432  | Evaluation of<br>Cosmetic Products      | Principles of cosmetic products evaluation; stability, safety and satisfactory test; cosmetic claims; evaluation of skin care cosmetics, hair care cosmetics and color and make-up cosmetics; statistics for cosmetic evaluation.   | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 56   | 1701433  | Cosmetic<br>Innovation                  | Definition of innovation; innovation of cosmetic products; novel substances, technology and packaging in cosmetics.   | 2 (2-0-4) | 2 <sup>nd</sup>     |  |
| 57   | 1701493  | Seminar in<br>Cosmetic Science          | Academic presentations of interest research topic; development, current and trend in cosmetic science.  | 1 (0-3-1) | 2 <sup>nd</sup>     |  |
| 58   | 1701324  | Cosmetics for<br>Special Groups         | Skincare cosmetic products for special groups, including<br>babies, elderlies, men, people with sensitive skin and skin<br>types that have special needs.   | 3 (1-6-4) | 2 <sup>nd</sup>     |  |
| 59   | 1701413  | Natural Products in<br>Cosmetics        | Potential natural products for cosmetic purposes; sources, types and preparation; biological activities and toxicity; stability, safety and efficacy of natural products; quality control, standardization and specification; applications of natural products in cosmetics   | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 60   | 1701417  | Household Product<br>Formulation        | Chemistry and technology of surfactants; formulations; evaluation; laundry and dishwashing detergents, liquid household cleaners; special purpose cleaners.   | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 61   | 1701419  | Formulating<br>Natural Cosmetics        | Types, properties and applications of natural products used in cosmetic; step in development of natural cosmetics; preparation, evaluation and quality control of natural cosmetic products; trends and current issues related to natural cosmetic products.  | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 62   | 1701431  | Clinical Trials of<br>Cosmetic Products | Ethics in clinical trial; clinical trials; safety and efficacy evaluation of cosmetic products; trial design; data analysis and presentation.   | 3 (2-3-5) | $2^{ m nd}$         |  |
| 63   | 1701325  | Nutritional<br>Cosmetics                | Definition, characteristics, importance and role of nutritional cosmetics; type, structure and function of nutrients applied in cosmetic and beauty; type of commercial nutritional cosmetic products and their production process and regulation; trends and current issues related to nutritional cosmetics.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |
| 64   | 1701441  | Polymer in<br>Cosmetics                 | Principles and types of polymer; properties and functions; applications of polymer in cosmetics, regulation and safety; quality control and standardization.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |



| Bach | Bachelor's degree-School of Cosmetic Science, Cosmetic Science Programme |   |   |           |                     |  |  |
|------|--|---|---|-----------|---------------------|--|--|
| No   | Course<br>Code   | Course Name   | Course Description  | Credit    | Semester<br>Offered |  |  |
| 65   | 1701442  | Nanotechnology<br>and Delivery<br>System for<br>Cosmetics | Principles of nanotechnology and delivery system; nanodelivery system in cosmetics; trends and innovation of nanotechnology and delivery system in cosmetics.   | 3 (2-3-5) | 2 <sup>nd</sup>     |  |  |
| 66   | 1701450  | Biotechnology in<br>Cosmetics Science                     | Definition of biotechnology in cosmetics; cosmetic biotechnological processes; fermentation, preparation, activity determination and cosmetic application of biotechnological products; peptides, enzymes, bioactive compounds, biopolymers, and biosurfactants; biocatalysis; trends and novel technology in cosmetic science. | 3 (2-3-5) | 2 <sup>nd</sup>     |  |  |
| 67   | 1701452  | Animal Tissue<br>Culture in Cosmetic<br>Science           | Basic animal cell culture technique; application of animal tissue culture in cosmetic safety and efficacy test.   | 3 (2-3-5) | 2 <sup>nd</sup>     |  |  |
| 68   | 1701456  | Principles of<br>Biomolecules in<br>Cosmetics             | Overview of biomolecules in cosmetics; types and characteristics; processes of biomolecules in living system; biomolecules used in cosmetics, including anti-aging, anti-acne, oral care, skin moisturizing, skin lightening, hair whitening and hair loss cosmetics; miscellaneous functions of biomolecules in cosmetics.     | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| 69   | 1701443  | Cosmetic<br>Counseling                                    | Counseling technique; types of counseling; role of counselor<br>and client; skin types and cosmetic dosage forms;<br>counseling for selection of various types of cosmetics;<br>practice in counseling.   | 3 (2-3-5) | 2 <sup>nd</sup>     |  |  |
| 71   | 1701444  | Perfumery   | Basic perfumery training; basic of perfume smelling; perfume language; perfume evaluation in cosmetic products; perfume selection; perfume marketing trends.  | 3 (2-3-5) | 2 <sup>nd</sup>     |  |  |
| Bach | elor's deg   | ree-School of Cos   | metic Science, Beauty Technology Programme  |           |                     |  |  |
| No   | Course<br>Code   | Course Name   | Course Description  | Credit    | Semester<br>Offered |  |  |
| 71   | 1703225  | Spa and Spa<br>Products                                   | Definition of spa; spa business; types of spa; spa products; spa research; spa innovation; services in spa.   | 4 (3-3-7) | 2 <sup>nd</sup>     |  |  |
| 72   | 1703402  | Anti-Aging and<br>Rejuvenation<br>Medicine                | An overview of anti-aging and regenerative medicine: anamnesis, physical examination and evaluation of aging client, medical treatment, hormone replacement therapy, nutrition, oxidative stress, dietary supplement for antiaging.   | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |
| 76   | 1703314  | Body Treatment for<br>Beauty                              | Principles of body treatment and massage for beauty, products, tools and equipments for body treatment, skin cleansing, skin warming, skin exfoliation, massage, skin mask and related problems.  | 4 (3-3-7) | 2 <sup>nd</sup>     |  |  |



| Bach | Bachelor's degree-School of Health Science, Physical Therapy Programme |  |   |           |                                     |  |  |
|------|--|--|---|-----------|-------------------------------------|--|--|
| No   | Course<br>Code   | Course Name  | Course Description:   | Credit    | Semester<br>Offered                 |  |  |
| 77   | 1803320  | Spa Therapy  | Foundation of SPA therapy; massage; hydrotherapy; Cheewajit; electrotherapy; health and beauty care.  | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |  |
| 78   | 1803330  | Exercise for Non-<br>communicable<br>Diseases Prevention | Basic principles of exercises for health and well-being; basic knowledge of body structure and function; body and function changes after exercises; exercises program design for preventing non-communicable diseases.  | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |  |
| 79   | 1803329  | Community-Based<br>Rehabilitation                        | Concepts of disability; concepts of community-based rehabilitation (CBR); policies and laws of disabled person; community health care system management; techniques and process of community health care.   | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |  |
| Bach |  | ree-School of Hea  | llth Science, Sports and Health Science Programm  | ne        |                                     |  |  |
| No   | Course<br>Code   | Course Name  | Course Description:   | Credit    | Semester<br>Offered                 |  |  |
| 80   | 1806401  | Sports Management  | The principles and theories of management; the structure<br>and hierarchy of sport organizations at national and<br>international levels; sports marketing; human resource<br>development in sports; sports and health business.                                    | 3 (3-0-6) | 1 <sup>st</sup>                     |  |  |
| 81   | 1806312  | Sports Technology  | Types of sports technology; material characteristics affecting to design and performance; the analysis of sports technology for training and competition; and trends of worldwide sports technology.  | 2 (1-2-3) | 1 <sup>st</sup>                     |  |  |
| 82   | 1806315  | Body Conditioning<br>Training                            | Principles, methods, and basic skills for muscle strength training; health- and skill-related physical fitness training; and training program design to improve and maintain levels of individual's fitness.  | 3 (2-2-5) | 1 <sup>st</sup>                     |  |  |
| 83   | 1806211  | Physical Activity<br>and Health                          | Overview of importance and prevalence of physical activity; measurement of physical activity; causes, prevention, reduction of the risk, and exercise for chronic diseases; and exercise for special population.  | 3 (2-2-5) | 1 <sup>st</sup>                     |  |  |
| 84   | 1806205  | Sports and Thai<br>Massage                               | Principles of massage in sports; anatomical and physiological aspects of massage; types and methods, indications, cautions, and selection of different massage techniques for increasing sports performance, therapeutic or purpose rehabilitation after injuries.  | 3 (2-2-5) | <b>1</b> st                         |  |  |
| 85   | 1806101  | Introduction to<br>Sports Science                        | Definition, basic principles, development, scope, role, of<br>sports science, relationship of scientific principles and<br>sports, current applications of science to sports, and future<br>trends.   | 2 (2-0-4) | 1 <sup>st</sup>                     |  |  |
| 86   | 1806440  | Athletics  | History, development, rules of athletics; track and field events; attitudes and ethics of athletes and coaches; basic movement skills and techniques in athletics track and field events; and application of skills in athletics through sports science principles. | 1 (0-2-1) | <b>1</b> st                         |  |  |
| 87   | 1806438  | Martial Art  | Definitions and different types of martial arts; movement<br>skills in martial arts through sports science principles; and<br>application of martial arts in daily life.  | 1 (0-2-1) | 1 <sup>st</sup>                     |  |  |
| 88   | 1806444  | Golf   | History, development, and rules of golf; attitudes and ethics of athletes and coaches; basic movement skills and techniques in golf; and application of skills in golf through sports science principles.   | 1 (0-2-1) | 1st                                 |  |  |



| Bach | Bachelor's degree-School of Health Science, Sports and Health Science Programme |  |   |               |                     |  |  |  |
|------|---|--|---|---------------|---------------------|--|--|--|
| No   | Course<br>Code  | Course Name  | Course Description:   | Credit        | Semester<br>Offered |  |  |  |
| 89   | 1806102   | Recreation and<br>Sport for Well-<br>Being                   | An introduction to sport and recreation; explanation of exercise for health and principles of exercise; understanding physical fitness test concepts; understanding sport injuries and sports nutrition, selecting appropriate methods of exercise for health; rules and basic training for certain selected sports, recreational activities and exercises in daily life. | 1 (0-2-1)     | 2 <sup>nd</sup>     |  |  |  |
| 90   | 1806437   | Yoga for Health  | History, definitions, and types of yoga; basic movement skills and techniques in yoga; and posture analysis induced benefits for health.  | 1 (0-2-1)     | 2 <sup>nd</sup>     |  |  |  |
| 91   | 1806447   | Basketball   | History, development, and rules of basketball; attitudes and ethics of athletes and coaches; basic movement skills and techniques in basketball; and application of skills in basketball through sports science principles.   | 1 (0-2-1)     | 2 <sup>nd</sup>     |  |  |  |
| Bach | elor's deg  | ree-School of Info   | ormation Technology, Computer Science and Innov   | ation         |                     |  |  |  |
| 92   | 1302327   | Introduction to<br>Emerging<br>Technology                    | Enterprise computing; communications convergence; collaboration technologies; virtualization technologies; web technologies; mobile technologies; infrastructure, storage services.   | 3 (2-2-5)     | 2 <sup>nd</sup>     |  |  |  |
| Bach | elor's deg  | ree-School of Info   | ormation Technology, Information and Commun   | ication Engin | eering              |  |  |  |
| No   | Course<br>Code  | Course Name  | Course Description:   | Credit        | Semester<br>Offered |  |  |  |
| 87   | 1502304   | Digital Signal<br>Processing for<br>Communication<br>Systems | Introduction to DSP techniques for communication; modulation, demodulation, pulse shaping, channel equalization, coding; other communication components, as well as DDS and NCOs, BER, correlation, and eye patterns, etc.  | 3 (2-2-5)     | 2 <sup>nd</sup>     |  |  |  |
| Bach | elor's deg  | ree-School of Info   | ormation Technology, Information Technology   |               |                     |  |  |  |
| No   | Course<br>Code  | Course Name  | Course Description:   | Credit        | Semester<br>Offered |  |  |  |
| 88   | 1301107   | Basic Information<br>Technology                              | Information technology concepts; importance, evolution, roles and impacts; computer systems; hardware and software; data processing; networks and computer communications; flowcharting; problem solving process.   | 3 (2-2-5)     | 2 <sup>nd</sup>     |  |  |  |
| 89   | 1301109   | IT Industrial POPBL  | Discuss, experiment, construct knowledge on Information Technology current issues for IT industries.  | 3 (3-0-6)     | 2 <sup>nd</sup>     |  |  |  |



| Bachelor's degree-School of Information Technology, Multimedia Technology and Animation |                |  |   |             |                                     |  |  |
|---|----------------|--|---|-------------|-------------------------------------|--|--|
| No  | Course<br>Code | Course Name                                    | Course Description:   | Credit      | Semester<br>Offered                 |  |  |
| 90  | 1306102        | Visual Language<br>and Semiotics               | The process of transferring of the human though to symbols: languages, Coding, Symbols, etc. To communicate or represent the message for one to the others in any kind of media. Study of history of art.   | 3 (3-0-6)   | 2 <sup>nd</sup>                     |  |  |
| 91  | 1306201        | Art Composition                                | Methods of identifying, interpreting, and evaluating ideas, art's functions, the visual elements and principles of design, the styles of art, and the art object.   | 3 (2-2-5)   | 2 <sup>nd</sup>                     |  |  |
| 92  | 1306211        | Computer Game<br>Concept Design<br>Basic       | Fundamental elements of game development; analyze games and gameplay elements, the history of games, examine genres and trends, development of game mechanics, procedural thinking, incorporation of artistic elements, and level and scenario design, basic game development with software.            | 3 (2-2-5)   | 2 <sup>nd</sup>                     |  |  |
| Bach  | elor's deg     | ree-School of Info                             | ormation Technology, Software Engineering Prog  | ramme       |                                     |  |  |
| No  | Course<br>Code | Course Name                                    | Course Description:   | Credit      | Semester<br>Offered                 |  |  |
| 93  | 1305102        | Introduction to<br>Software<br>Engineering     | Principles of software engineering; user requirements analysis; price estimation; software design and development; software development life cycle; work product and project management; software testing, software quality assurance; software maintenance.  | 3 (3-0-6)   | 2 <sup>nd</sup>                     |  |  |
| Bach  | elor's deg     | ree-School Law, L                              | aw Programme  |             |                                     |  |  |
| 94  | 1601103        | Know Your Laws                                 | The need for having laws, history of Thai laws, laws pertaining to ASEAN legal system, basic laws for everyday usage, problems which are of legal significant, structure and the operation of justice system.   | 3 (3-0-6)   | 2 <sup>nd</sup>                     |  |  |
| Bach  | elor's deg     | ree-School of Libe                             | eral Arts - Thai Language and Culture for Foreign   | ers Program | me                                  |  |  |
| No  | Course<br>Code | Course Name                                    | Course Description:   | Credit      | Semester<br>Offered                 |  |  |
| 95  | 1005121        | Thai Language<br>Conversation in<br>Daily Life | Thai language conversation in daily life, focusing on basic expressions for greeting, introducing oneself and others, number counting, time telling, making purchases, expressing feelings, describing flavours, and travelling.  | 3 (2-2-5)   | 1 <sup>st and</sup> 2 <sup>nd</sup> |  |  |
| Bach  |                | ree-School of Libe                             | eral Arts – English Programme   |             | Carrette                            |  |  |
| No  | Course<br>Code | Course Name                                    | Course Description:   | Credit      | Semester<br>Offered                 |  |  |
| 96  | 1006122        | English 1                                      | Data is in progress   | 3 (3-0-6)   | 1st and 2nd                         |  |  |
| 97  | 1006141        | Foundations of<br>College English 1            | Fundamental English, focusing on building English communication ability based on the understanding of functions and meanings as represented by grammatical, lexical and syntactic patterns, with a comprehensive practice ranging from proper use of parts of speech to writing various sentence types. | 3 (3-0-6)   | 2 <sup>nd</sup>                     |  |  |



| Bach | Bachelor's degree-School of Liberal Arts – English Programme |                                     |   |           |                                     |  |
|------|--|-------------------------------------|---|-----------|-------------------------------------|--|
| No   | Course<br>Code   | Course Name                         | Course Description:   | Credit    | Semester<br>Offered                 |  |
| 98   | 1006143  | English Listening and Pronunciation | Listening and pronunciation skills, focusing on sound recognition and pronunciation, speech mechanisms, common patterns of English stress and intonation and usage in daily conversation.   | 3 (3-0-6) | 2 <sup>nd</sup>                     |  |
| 99   | 1008301  | Korean 1                            | Korean pronunciation and characters; basic Korean sentences; daily vocabulary and expressions.  | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 100  | 1008111  | Japanese 1                          | Japanese pronunciation, hiragana, katakana, and kanji characters, basic Japanese sentences, daily vocabulary and expressions.   | 3 (2-3-5) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 101  | 1008213  | Japanese Culture                    | Religion in Japanese culture, folktales, festivals and rituals, traditional arts, popular culture, food culture, modern and traditional clothes, family, values and beliefs   | 3 (3-0-6) | 1 <sup>st</sup>                     |  |
| 102  | 1009101  | French 1                            | Integrated four skill practices of listening, speaking, reading and writing for beginning French  | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 103  | 1009105  | French<br>Conversation 1            | Introduction to French sounds, introducing oneself, describing people, ordering food and drink, telling the time, describing one's house, talking about the weather, planning in the future, telling directions, giving orders, talking about everyday activities.  | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 104  | 1009107  | French Food<br>Culture              | Introduction to the course, French cuisine evolution, Traditional cuisine and nouvelle cuisine, French regional specialties, French wine, French bread, condiments and herbs, French food festivals and religious festival, French cheeses, French desserts, table dressing, French street food and cafés, bars, brasseries.  | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 105  | 1008321  | Myanmar 1                           | Integrated Four Skill Practice of Listening, Speaking, Reading and Writing for Beginning Burmese.   | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 106  | 1008323  | Myanmar<br>Conversation 1           | Colloquial spoken Myanmar language with regards to greetings, introducing oneself, using time, counting, requesting, replying, ordering, shopping, expressing opinion, taking about weather and travelling.   | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 107  | 1007211  | Chinese-Go                          | Principles of a traditional Chinese game, which is called Go, constructed with vocabulary that are specifically for use in the knowledge of Go and includes the introduction to the history, rules and techniques of the Chinese Go.  | 3 (2-2-5) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 108  | 1009310  | Spanish 1                           | Introduction to the Spanish language and culture (Spanish as well as Latin American). Learn basics of the Spanish language through practicing reading, listening and writing skills. Learn Spanish sounds introducing oneself, introducing people, describing people, identifying people or things, asking information about the quantity, describing objects, asking information about something, expressing feelings, telling prices, ordering drinks and food, explaining an itinerary, and conjugating verbs in several tenses. | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |
| 109  | 1020308  | Bahasa Indonesia 1                  | Bahasa Indonesia with regards to alphabet recognition; written alphabet formations, words, particles, basic sentence structures; and basic communication in Bahasa Indonesia in daily situations.   | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |



| Bach | Bachelor's degree-School of Liberal Arts - English Programme |   |   |           |                                     |  |  |
|------|--|---|---|-----------|-------------------------------------|--|--|
| No   | Course<br>Code   | Course Name   | Course Description:   | Credit    | Semester<br>Offered                 |  |  |
| 110  | 1009320  | Italian 1   | Introduction to the Italian language and culture. Learn the basics of the Italian language through practicing reading, listening and writing skills. Learn Italian sounds introducing oneself, introducing people, describing people, identifying people or things, asking information about the quantity, describing objects, asking information about something, expressing feelings, telling prices, ordering drinks and food, explaining an itinerary, and conjugating verbs in several tenses. | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |  |
| 111  | 1001302  | Human Relations   | Introduction to the theory and practice of effective human<br>relations; explain application of psychological principles of<br>human behavior; help students understand themselves and<br>others; analyze how to build good public relations and<br>intimate relationships.   | 3 (3-0-6) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |  |
| 112  | 1001113  | Art Appreciation  | Introduction to aesthetics; man in relation to arts and creativity including visual arts, music and performing arts; form, contents and appreciation of various arts  | 3(3-0-6)  | 2 <sup>nd</sup>                     |  |  |
| 113  | 1001141  | General Psychology  | An introduction to psychology; human behavior and its relation to biological nature; schools of psychology and psychologist beliefs; maturity and development; individual differences; thinking and imagination; learning and relevant theories; human memory model and its capacity; and mental health   | 3(3-0-6)  | 2 <sup>nd</sup>                     |  |  |
| 114  | 1001202  | Introduction to Thai<br>Culture                             | Meaning and concepts of Thai culture including knowledge of Thai geography and history, characteristics of Thai people; different regional lifestyles, Mekong Basin Civilization, religions and beliefs, the monarchy, traditions, trends and lifestyles, globalization and its influence in Thai culture   | 3(3-0-6)  | 2 <sup>nd</sup>                     |  |  |
| 115  | 1001203  | Creative Thinking<br>and Inquiry Skills<br>for Everyday Use | Creative thinking and its application to other disciplines and everyday life; basic techniques for gathering information; basic rules of correct reasoning, testing beliefs for truth and problem solving; awareness of common mistakes in everyday reasoning   | 3(3-0-6)  | 2 <sup>nd</sup>                     |  |  |
| 116  | 1001307  | Introduction to<br>Eastern Philosophy                       | An introduction to Eastern philosophy; Hinduism; Buddhism; Taoism and Confucianism in Chinese philosophy; influence of Eastern philosophy on the present society; applied Eastern philosophy.   | 3(3-0-6)  | 2 <sup>nd</sup>                     |  |  |
| 117  | 1001315  | Introduction to<br>Western Philosophy                       | An introduction to Western philosophy; epistemology; philosophy of sciences; political philosophy; philosophy of language; philosophy of religion; meta-ethics and applied ethics   | 3(3-0-6)  | 2 <sup>nd</sup>                     |  |  |



| Bach | Bachelor's degree-School of Liberal Arts – English Programme |  |   |           |                     |  |  |  |
|------|--|--|---|-----------|---------------------|--|--|--|
| No   | Course<br>Code   | Course Name                                      | Course Description:   | Credit    | Semester<br>Offered |  |  |  |
| 118  | 1008213  | Japanese Culture                                 | Religion in Japanese culture, folktales, festivals and rituals, traditional arts, popular culture, food culture, modern and traditional clothes, family, values and beliefs   | 3(3-0-6)  | 2 <sup>nd</sup>     |  |  |  |
| 119  | 1020325  | Myanmar Culture                                  | Myanmar famous people, places, tradition and customs, races and their customs, religions, famous festivals; dos and don'ts in Myanmar   | 3(3-0-6)  | 2 <sup>nd</sup>     |  |  |  |
| 120  | 1009107  | French Food<br>Culture                           | Introduction to the course, French cuisine evolution, Traditional cuisine and nouvelle cuisine, French regional specialties, French wine, French bread, condiments and herbs, French food festivals and religious festival, French cheeses, French desserts, table dressing, French street food and caf?s, bars, brasseries | 3(3-0-6)  | 2 <sup>nd</sup>     |  |  |  |
| Mast |  | ee- School of Liber                              | cal Arts- English for Professional Development P  | rogramme  | Carrantan           |  |  |  |
| No   | Course<br>Code   | Course Name                                      | Course Description:   | Credit    | Semester<br>Offered |  |  |  |
| 121  | 1006702  | English Linguistics                              | Basic concepts about English language components including sounds, words, sentence structures and meanings; English language in relation to society, ethnicity, psychology, and history.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |  |
| 122  | 1006703  | Socio-Cultural<br>Aspects of English<br>Language | A diachronic and synchronic approach to socio-cultural influence on the emergence of English as an international language; sociolinguistic impact of English language on English-adopting cultures and their languages in both academic and professional contexts.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |  |
| 123  | 1006708  | Principles of<br>English Language<br>Teaching    | Teaching methodology and approaches in English Language teaching; factors affecting teaching and learning; current trends and frameworks for researching in English language teaching.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |  |
| 124  | 1006712  | Advanced Academic<br>English Literacy            | -   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |  |
| 125  | 1006730  | English for<br>Communication in<br>Organizations | -   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |  |
| Doct |  | ree- School of Libe                              | eral Arts- English for Professional Development l   | Programme |                     |  |  |  |
| No   | Course<br>Code   | Course Name                                      | Course Description:   | Credit    | Semester<br>Offered |  |  |  |
| 126  | 1006920  | Research Methodolog                              | y in English for Professional Development   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |  |
| 127  | 1006901  | Theory and<br>Research in English<br>Usage       | Fundamentals of grammatical concepts and terminology; analyses of prescriptive and descriptive English grammatical patterns in communication; research into roles of grammar in communicative contexts  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |  |
| 128  | 1006902  | Dissertation and<br>Research Paper<br>Writing    | Analyzing and writing each section of a research proposal, a dissertation and an article for publications; conventions and rhetoric of research reports; ideas and organization development; word choice; advanced English grammar; citing sources and avoiding plagiarism  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |  |
| 129  | 1006918  | -  | in Second Language Education  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |  |
| 130  | 1006919  | English Language Pro                             | gram Management and Policy  | 3 (3-0-6) | $2^{\rm nd}$        |  |  |  |



| Bach | elor's Deg     | gree-School of Ma            | nagement-Accounting Programme   |           |                     |
|------|----------------|------------------------------|---|-----------|---------------------|
| No.  | Course<br>Code | Course Name                  | Course Description:   | Credit    | Semester<br>Offered |
| 131  | 1201115        | Elementary<br>Accounting 1   | Accounting Meaning and Objective of accounting; the benefit of accounting information; Basic Principles; concepts of accounting and accounting practices; accounting framework; accounting cycle; recording by double- entry accounting; the journal and posting to the ledger; adjusting entries; the closing entries; the use of accounting information in management; financial statements preparation for servicing and merchandising firms; voucher system; special journals; control account and subsidiary ledgers; the application of accounting software; accounting professional ethic and history of accountancy profession. | 3 (2-2-5) | 2 <sup>nd</sup>     |
| 132  | 1201212        | Managerial<br>Accounting     | Importance and usefulness of financial statements; relation of each account in financial statements; preparation of budget and reports for management level for planning, controlling and making decisions; financial statement analysis.   | 3 (3-0-6) | 2 <sup>nd</sup>     |
| 133  | 1201213        | Intermediate<br>Accounting 1 | Principles and treatments of accounting for assets in accordance with Thai and International Financial Reporting Standards, including classification of assets, recognition and measurement of assets, revaluation, costs are capitalised and expensed in accordance with accounting principles, impairment of assets; presentation of assets on financial statements and disclosure; accounting for cash and accounts receivable, investments, notes receivable, inventories, property plant and equipment, natural resources, intangible assets, investment property, and borrowing cost.   | 3 (3-0-6) | 2 <sup>nd</sup>     |
| 134  | 1201216        | Cost Accounting 2            | Analysis of the relationships among cost-volume and profit; inventory costing and capacity analysis; strategic profitability analysis; the decision process and relevant information; transfer pricing and multinational considerations; pricing decisions and cost management; cost planning and control systems; inventory management and just-in-time system; capital budgeting and cost analysis; performance measurement systems and compensation; Balanced Scorecard; financial and nonfinancial performance measures; choosing among different performance measures.   | 3 (3-0-6) | 2 <sup>nd</sup>     |
| 135  | 1201411        | Advanced<br>Accounting 1     | Home office and branch accounting; accounting policies, changes in accounting estimates and error corrections; business liquidation and accounting for troubled debt restructuring; joint venture; consignments; leases; installment sales; accounting for long-term construction contracts; government accounting and non-profit organization; accounting for deferred taxes and employee benefits.  | 3 (3-0-6) | 2 <sup>nd</sup>     |



| Bach | Bachelor's Degree-School of Management-Accounting Programme |                                |  |           |                     |  |  |
|------|---|--------------------------------|--|-----------|---------------------|--|--|
| No.  | Course<br>Code  | Course Name                    | Course Description:  | Credit    | Semester<br>Offered |  |  |
| 136  | 1201412   | Advanced<br>Accounting 2       | Accounting for investment in associated and joint venture; Accounting for combined corporate entities; preparation of consolidated financial statements; consolidated statement of cash flow; specific business in investment; foreign currency transactions; translations of foreign financial statements; and fund accounting by following the international and Thailand accounting standard.   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| 137  | 1201314   | Profit Planning and<br>Control | Planning and control operation; master budget; static budget; flexible budget; zero-based budget; budgeting of merchandising, manufacturing and servicing companies; profit planning and control in international business.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| Bach |   | ree-School of Mar              | nagement-Business Administration Programme   |           |                     |  |  |
| No.  | Course<br>Code  | Course Name                    | Course Description:  | Credit    | Semester<br>Offered |  |  |
| 139  | 1201117   | Fundamentals of<br>Accounting  | Definition and objective of accounting; the benefits of accounting information; accounting framework; accounting principles and financial reporting standards; accounting cycle; principles and procedures of the double- entry system of accounting; general and special journal entries; posting to ledgers; preparing trial balance and working papers; adjusting entries; closing entries; preparation of financial statements for servicing and merchandising firms; voucher system; pretty cash system; control accounts and subsidiary ledgers; accounting professional ethics and history of accountancy profession. | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |
| 140  | 1203242   | Human Resources<br>Management  | Management of human resource, interaction between internal and external environment and functions of human resource management, staffing, human resource development, compensations and benefit, safety and health, employee relations, problems and current issues.   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| 141  | 1203304   | Business Ethics                | Philosophical study of ethical principles to contemporary business practice, in considering debates about the underlying ethical principle to develop an ethical framework, to confront the ethical dilemmas that are an inevitable part of a modern business career in order to encourage sustainable ethics and corporate social responsibility in business  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| 142  | 203342  | Business<br>Psychology         | Diversity of individual behavior, working relationship, working attitude, development of personality, collective behavior leadership and authority.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| Bach | elor's Deg  | gree-School of Mar             | nagement-Economic Programme  |           |                     |  |  |
| No.  | Course<br>Code  | Course Name                    | Course Description:  | Credit    | Semester<br>Offered |  |  |
| 143  | 1202114   | Introduction to<br>Economics   | Theories of micro and macroeconomics; economics analysis of supply, demand and market equilibrium; theories of consumer's behavior; production and cost; market structures and competitions; national income analysis; public finance; monetary policy; international economics and development.   | 3 (3-0-6) | <b>2</b> nd         |  |  |



| Bach | Bachelor's Degree-School of Management-Economic Programme |   |  |           |                     |  |  |
|------|---|---|--|-----------|---------------------|--|--|
| No.  | Course<br>Code  | Course Name   | Course Description:  | Credit    | Semester<br>Offered |  |  |
| 144  | 1202113   | Macroeconomics  | Introduction to economics; national income and product; money and money markets; relationship among product, money and labor markets; international trade and payments; economic problems and macro economic policies.   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| 145  | 1202116   | Principle of<br>Macroeconomics                                      | National income and product account; the role of money and interest rate determination; relationship among product, money and labor markets; international trade and payments; economic problems and macro economic policies.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| Bach | elor's Deg  | ree-School of Mar   | nagement-Tourism Management Programme  |           |                     |  |  |
| No.  | Course<br>Code  | Course Name   | Course Description:  | Credit    | Semester<br>Offered |  |  |
| 146  | 1205206   | Sustainable<br>Tourism  | Concept, principle, and component of sustainable tourism; dimension of sustainable tourism; environmental, socio-cultural and economic dimension; carbon footprint concerns; public and private sectors roles in tourism planning and management for sustainability.   | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |
| 147  | 1205318   | Business Venture<br>and<br>Entrepreneurship<br>for Service Business | Concept and characteristics of entrepreneurs; types of<br>business venture; new business planning and development;<br>challenges of entrepreneur; type of investment; for service<br>business  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| 148  | 1205329   | Tourism Resource<br>Management                                      | Fundamentals knowledge of tourism geography; types, characteristics, components of tourism resources; roles of stakeholders; analysis of sustainable resources management.   | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |
| 149  | 1205332   | MICE Management   | Definitions and importance of MICE; Meetings, Incentives, Conventions and Exhibitions; facilities needed for MICE industry; marketing, budget and operation plans for various types; collaboration with related agencies.  | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |
| 150  | 1205360   | Fundamentals of<br>Special Events and<br>Recreation<br>Management   | Fundamental knowledge, concepts, evolution, characteristic of special events and recreation management and its relationship to tourism and hospitality industry; creative thinking; planning and process; environment; stakeholders; marketing and budgeting; project evaluation; contingency plan; risk management; changes affecting the industry. | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |
| 151  | 1205326   | Heritage Tourism<br>Management                                      | Relationship between heritage and tourism; heritage management in Asian and Western perspectives; theoretical framework; analysis of management and its impacts; interpretation; legislation and sustainable management.   | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |



| Bach | Bachelor's Degree-School of Management-Tourism Management Programme |   |  |           |                     |  |  |
|------|---|---|--|-----------|---------------------|--|--|
| No.  | Course<br>Code  | Course Name   | Course Description:  | Credit    | Semester<br>Offered |  |  |
| 152  | 1205327   | Creative Tourism<br>Management                                    | Principles of creative tourism; relationship between cultural tourism and creative tourism; the role of a community and its members in the development of creative tourism; design of tourism activities based on tourists' creativity; the role of relevant public and private organizations in sustaining creative tourism; and the impact of creative tourism on community development and sustainable development. | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| 153  | 1205317   | ASEAN Tourism   | Fundamental knowledge of tourism geography; demography, religion, socio-culture related to ASEAN tourism; image, situation and trends, tourism networks, ASEAN regional tourism development plan; analysis of current issues in ASEAN tourism.   | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |
| 154  | 1205304   | Research<br>Methodology for<br>Tourism Industry                   | Qualitative and quantitative research approaches; topic selection; literature review; research questions; conceptual framework formulation; research design; data collections; data analysis and finding interpretation.   | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |
| 155  | 1205342   | Souvenir Business<br>Management                                   | Fundamental knowledge of souvenir business management including its definition, characteristics, types and development of souvenir. Relationship between souvenir and tourism business both in macro and micro levels, marketing, and related issues for the career application.   | 3 (2-2-5) | $2^{ m nd}$         |  |  |
| 156  | 1205350   | Airlines Business<br>Management                                   | Evolution, characteristics and elements of aviation business; aviation geography; laws applicable to aviation business; and relationship between aircraft types, airlines, airports, flight distances and aviation codes.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| 157  | 1205352   | Small Medium Tourism Enterprise (SMTEs) Management                | Concept, characteristic, component, type, principle of SMTEs management; business related to SMTEs; stakeholders' roles on SMTEs promotion; analysis of SMTEs and its impacts.   | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |
| 158  | 1205412   | ASEAN Cross-<br>Cultural<br>Communication for<br>Service Business | Relationship between culture and services business: importance, definitions, typologies and diversity of cultures; factors influencing on cross cultural communication; problems of cross-cultural communication in ASEAN countries.   | 3 (2-2-5) | 2 <sup>nd</sup>     |  |  |



#### **Student Exchange Programme**

# Master's Degree-School of Management- International Logistics and Supply Chain Management Programme

| No. | Course<br>Code | Course Name  | Course Description:  | Credit    | Semester<br>Offered |
|-----|----------------|--|--|-----------|---------------------|
| 159 | 1209731        | Logistics and<br>Supply Chain<br>Analytics                         | Analytical techniques for managing logistics and supply chain management, customer services, procurements, distribution centers, inventories and customer demand, optimal routes, distribution centers and networks; safety logistics; related technology and information management for logistics system; techniques for adding value and lowering non-value added activities along logistics system; outsourcing logistics systems; performance measurement; bullwhip effect; other related topics.  | 3 (3-0-6) | <b>1</b> st         |
| 160 | 1209732        | Inventory and<br>Distribution<br>Management                        | Managing inventories and distribution; determination distribution center locations; distribution design; distribution management by product types; roles of distribution center in inventory management as well as logistics and supply chain management; performance measurement in inventory and distribution management; technology and information management for managing inventories and distribution; customer demand and inventory management; other related issues.   | 3 (3-0-6) | 1 <sup>st</sup>     |
| 161 | 1209733        | Sourcing and<br>Procurement<br>Management                          | Concepts, principles and strategies of sourcing and procurement in supply management; procurement planning; procurement process management; supplier selection; demand management; procurement cost management; supplier relationship management; supply and inventory management; supply and transportation management; technology and information management for procurement; legal aspects for procurement; future trends for procurement and supply management; international supply management; public procurement; other related issues.   | 3 (3-0-6) | 1 <sup>st</sup>     |
| 162 | 1209737        | Cross Border Trade<br>and International<br>Transport<br>Management | Topics that related to freight transport businesses in provider perspectives including freight operation management; trade facilitation; border trade and international transport asset management for asset-based providers; containerization; demand management for freight transport; transport business structure for road, maritime, and air transport; opportunities and obstacles and future business environments in doing international freight transport business by modes of transport and other related topics also a study trip involving cross border and international transport management aspect including writing of a study report. | 3 (3-0-6) | 1 <sup>st</sup>     |
| 163 | 1209740        | International<br>Logistics and<br>Supply Chain<br>Management       | Application of Logistis and supply chain management concepts and busiess model for international business management. International Busienss and Marekting competitiveness enhancement using logistics and supply chain management tools for creating both cost and value advantages in international markets; logistics and supply chain management for various environments and cultures in international economy and other related topics also a study trip involving logistics and supply chain management aspect including writing of a study report.   | 3 (3-0-6) | 1 <sup>st</sup>     |



| Mast                | Master's Degree-School of Management- International Logistics and Supply Chain Management |  |  |            |                     |  |  |  |
|---------------------|---|--|--|------------|---------------------|--|--|--|
| Programme Programme |   |  |  |            |                     |  |  |  |
| No.                 | Course<br>Code  | Course Name  | Course Description:  | Credit     | Semester<br>Offered |  |  |  |
| 164                 | 1209734   | International<br>Business and Digital<br>Marketing<br>Management             | Principle concepts and Theory of International Business. The systems and Process of Import-Export business. The application of digital marketing management in international business. Practice-based learning and improvement, focuses on realy case studies and study trips (domestics and international factory visits).  | 3 (3-0-6)  | 2 <sup>nd</sup>     |  |  |  |
| 165                 | 1209831   | Seminar in Logistics<br>and Supply Chain<br>Strategies                       | To debate, analyze, and present issues related to logistics and supply chain management or other related topics.   | 0 (0-3-3)  | 2 <sup>nd</sup>     |  |  |  |
| 166                 | 1209735   | Analytical Research<br>Methods in<br>Business and<br>Logistics<br>Management | Business analytics and research process; Analytical research methodology; data analysis; research tools; developing the business research; and the application of the business research for logistics management including research ethic aspect.  | 3 (3-0-6)  | 2 <sup>nd</sup>     |  |  |  |
| 167                 | 1209736   | Quantitative Models<br>for Logistics<br>Management                           | Principles and concepts of quantitative model together with statistics and math programmes for business and logistics decision making.   | 3 (2-2-5)  | 2 <sup>nd</sup>     |  |  |  |
| 168                 | 1209739   | Regional Study and<br>Manufacturing<br>Systems in Supply<br>Chain Context    | A study trip; production, logistics and supply chain management system, the analytical thinking from the real situation concerning the economy, politics, society, technology, business investments, culture and the entrepreneurial management in the chosen region; including writing of a regional study report.  | 0 (0-3-1)  | 2 <sup>nd</sup>     |  |  |  |
| Scho                | ol of Nurs  | sing, Nursing Pro  | gramme   |            |                     |  |  |  |
| No.                 | Course<br>Code  | Course Name  | Course Description:  | Credit     | Semester<br>Offered |  |  |  |
| 169                 | 1901303   | Adult and Elderly<br>Nursing Practicum<br>1                                  | Practice nursing care for adults and elderly with common illnesses including stress and stress management, pain and pain management, wound and infection, acid-base and electrolytes imbalance, shock.  Provide holistic care for clients with alterations of oxygen transportation and ventilation, blood and blood circulation, metabolism, cancer, and operations through nursing process and evidence based with respect to the individual's rights, professional laws, and code of ethics | 3 (0-12-3) | 2 <sup>nd</sup>     |  |  |  |
| Scho                | ol of Scie  | nce, Biotechnology   | y Programme  |            |                     |  |  |  |
| No.                 | Course<br>Code  | Course Name  | Course Description:  | Credit     | Semester<br>Offered |  |  |  |
| 170                 | 1103108   | Fundamentals of<br>Biology   | Basic knowledge in biology for upper biology courses; Introduction to diversity; Integrating the principles of molecular biology and biochemistry in the structure and function of microbial cells, plant, and animal; Cellular and molecular mechanisms underlying cell growth/death cycles, cancer and genetic disorders; Structure and function of animals, plants and microbes; Evolution; The principles of ecology and conservation biology; Trends and innovation in biotechnology.     | 4 (3-3-7)  | 1 <sup>st</sup>     |  |  |  |



| Scho | School of Science, Biotechnology Programme |   |  |           |                                     |  |  |
|------|--|---|--|-----------|-------------------------------------|--|--|
| No.  | Course<br>Code                             | Course Name   | Course Description:  | Credit    | Semester<br>Offered                 |  |  |
| 171  | 1105102                                    | Orientation to<br>Biotechnology                                       | Historical backgrounds; basic knowledge in various fields of biotechnology; applications; ethical issues; career guidelines in biotechnology.  | 2 (2-0-4) | 1 <sup>st</sup>                     |  |  |
| 172  | 1103100                                    | Principles of<br>Biology  | Origin of Earth and living organisms; biological evolution; biodiversity; structures, functions and roles of organisms including microorganisms, plants, and animals; cell division; cancer and genetic disorders; heredity, DNA technology and stem cell basics.                                      | 3 (2-3-5) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |  |
| 173  | 1103211                                    | Microbiology<br>P: Fundamentals of<br>Biology                         | Prokaryotic and eukaryotic microorganisms; cultivation; growth; metabolism, genetics and classification; interrelationship of other organisms; infections; industrial utilization; bioremediation; trends in microbiology.   | 4 (3-3-7) | 2 <sup>nd</sup>                     |  |  |
| 174  | 1103211                                    | Microbiology<br>P: Fundamentals of<br>Biology, General<br>Biology 2   | Prokaryotic and eukaryotic microorganisms; cultivation; growth; metabolism, genetics and classification; interrelationship of other organisms; infections; industrial utilization; bioremediation; trends in microbiology.   | 4 (3-3-7) | 1 <sup>st</sup>                     |  |  |
| 175  | 1103342                                    | Ecology<br>P: General Biology 2                                       | Ecosystem and type of ecosystem; biodiversity; population dynamics; physical environment, life style and community interaction; food web, primary production and energy flow; nutrient cycling, succession and stability; global ecology; ecological management.                                       | 3 (2-3-5) | 1 <sup>st</sup>                     |  |  |
| 176  | 1102250                                    | Principles of Biochemistry P: General Biology 2 and General Chemistry | Structures, properties and functions of biomolecules; mechanism, metabolism and application of biochemistry to genetics and nutrition.   | 3 (2-3-5) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |  |
| 177  | 1103222                                    | Genetics<br>P: General Biology 2                                      | Gene structure and function; mendelian genetics; mutations; recombinant DNA; genomics; non-mendelian genetics; sex linkage, human evolution; quantitative genetics.  | 3 (2-3-5) | 2 <sup>nd</sup>                     |  |  |
| 178  | 1100301                                    | Cell and Molecular<br>Biology<br>P: General Biology 2                 | Understanding of cell structure and function; biosynthesis; structure and function DNA, RNA and protein; gene expression and control.  | 3 (2-3-5) | 1 <sup>st</sup>                     |  |  |
| 179  | 1100303                                    | Bioscience<br>Laboratory<br>Practices<br>P: General Biology 2         | Understanding and practicing basic bioscience laboratory techniques, e.g., calculation and preparation of chemicals and solutions, microscopic sample preparation and visualization, centrifugation; laboratory safety standards; data recording, data analysis, and preparation of scientific report. | 3 (1-6-5) | 1 <sup>st</sup>                     |  |  |
| 180  | 1105362                                    | Food Biotechnology<br>P: General Biology 2                            | Impact of biotechnology of food production; genetic tools as applied to food biotechnology; improvement of microbes used in food production by modern biotechnological approaches; biotechnology and food preservation; current issues.  | 3 (2-3-5) | 1 <sup>st</sup>                     |  |  |



| Scho | School of Science, Biotechnology Programme |  |  |           |                     |  |
|------|--|--|--|-----------|---------------------|--|
| No.  | Course<br>Code                             | Course Name  | Course Description:  | Credit    | Semester<br>Offered |  |
| 181  | 1100311                                    | Plant Physiology<br>P: General Biology 2                   | Study in characteristics, components and structure of plant cells, tissues, organs and the whole plant parts; plant growth and development; plant key metabolisms (eg. photosynthesis and respiration, carbohydrate, protein, lipids metabolisms); transportation of water; minerals and solutes in plant; phytohormones and plant growth regulators; environmental impact and plant stress responses.                           | 3 (2-3-5) | 1 <sup>st</sup>     |  |
| 182  | 1100302                                    | Environmental<br>Biotechnology<br>P: Microbiology          | Definition and scope of environmental biotechnology, specific application of biotechnology as tools to cope with environmental problems, waste management and pollution control, utilization of agricultural and industrial residues, concepts and methodology in biodegradation of difficultly digestible materials and hazardous wastes, biological methods for evaluation of specific pollutants in ecosystem.                | 3 (3-0-6) | 2 <sup>nd</sup>     |  |
| 183  | 1100310                                    | Principles of<br>Virology<br>P: Microbiology               | Structure; Classification, Genetics materials, Replication; Pathogenesis, Epidemiology and Evolution of viruses; Diagnosis and Control of viral infection and diseases; Current issues.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |
| 184  | 1105322                                    | Algal Biotechnology<br>P: Introduction to<br>Biotechnology | Classification of algae; use of algae in agriculture; industry; aquaculture and industry; algal cultivation systems; commercial microalgae; waste treatment; roles of algae on the environment; current genetic engineering of algae.  | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 185  | 1110301                                    | Mycology<br>P: Microbiology                                | Cellular, morphological, physiological taxonomical and ecological perspectives in fungal biology; the impact of fungi both on natural ecosystems and human civilization.   | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 186  | 1100305                                    | Gene Technology<br>P:Cell and<br>Molecular Biology         | Introduction to genetic engineering; training in the basic techniques of gene manipulation; DNA diagnosis; Training in the technique of heterologous gene expression in both prokaryotic and eukaryotic systems; protein engineering; current issues and trends.   | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 187  | 1100308                                    | Introduction to<br>Immunology<br>P: General Biology 2      | Molecular and cellular immunology including innate and acquired immunity; structure and function of antigen and antibody: complement; major histocompatibility complexes (MHC); antibody-antibody reaction; cells and organs of the immune; immune response system e.g. immune regulation and immunomodulation; interested topics e.g. immunosuppression, immunotherapy and vaccination; principle of immunoassay in laboratory. | 3(3-0-6)  | 2 <sup>nd</sup>     |  |



| Scho | School of Science, Biotechnology Programme |  |  |           |                        |  |
|------|--|--|--|-----------|------------------------|--|
| No.  | Course<br>Code                             | Course Name  | Course Description:  | Credit    | Semester<br>Offered    |  |
| 188  | 1100309                                    | Plant Tissue Culture<br>P: General Biology 2         | Principles and practices of plant tissue culture, i.e., related theory, history, laboratory requirements, types of plant tissue culture, steps of plant tissue culture from medium preparation to ex vitro acclimatization, growth and development of in vitro plantlets, problems concerning plant tissue culture, and applications of plant tissue culture such as plant propagation, embryo rescue, germplasm, production of haploid and homozygous diploid plants, production of virus-free plant, induction of somaclonal variation for varietal improvement. | 3 (2-3-5) | <b>2</b> <sup>nd</sup> |  |
| 189  | 1100312                                    | Plant Systematics<br>P: General Biology 2            | Brief history of plant systematics, objectives of plant systematics, concepts of taxa, rules of botanical nomenclature, characteristics of land plants, vegetative and reproductive structures of flowering plants, flowering plant families, theories and practices of plant classification and identification.   | 3 (2-3-5) | 2 <sup>nd</sup>        |  |
| 190  | 1103313                                    | Microbial<br>Physiology<br>P: Microbiology           | Types and morphology of microorganisms; growth and growth factors; energy formation processes; metabolism; intercellular transport.  | 3 (2-3-5) | 2 <sup>nd</sup>        |  |
| 191  | 1105431                                    | Microbial<br>Biotechnology<br>P: Microbiology        | Industrial microorganisms; strain improvements; emphasis on applications in agriculture, industry, medicine and environment; field trips; current issues and prospects.  | 3 (2-3-5) | 2 <sup>nd</sup>        |  |
| 192  | 1100401                                    | Seminar  | Seminar on theories, practices and application of current issues of biosciences.   | 0 (0-3-1) | 1 <sup>st</sup>        |  |
| 193  | 1100407                                    | Entrepreneurship<br>for Science                      | Planning, starting and managing a new scientifically oriented business venture; discussion on case studies and assigned reading; seminars by invited entrepreneurs in science; topics include new technology assessment; new business start-up; resource allocation; management, development as well as manufacturing and sales issues.  | 2 (2-0-4) | 1 <sup>st</sup>        |  |
| 194  | 1102402                                    | Scientific Writing and Publications                  | Methods of searching scientific articles; impact factor, basic rules of scientific writing; common grammatical errors; choosing words to describe ideas or results; appropriate means of illustrating results with tables, graphs and figures; writing a manuscript; choosing a journal and publishing a paper.  | 2 (2-0-4) | 1 <sup>st</sup>        |  |
| 195  | 1100306                                    | Bioprocess<br>P: Principles of<br>Physical Chemistry | Enzyme kinetics; microbial growth kinetics; medium design and optimization; cells and enzymes immobilization; material and energy balance; mass and heat transfer; fluid flow and mixing; aeration; bioreactor configuration and design; instrumentation and control of bioprocess.  | 3 (2-3-5) | 1 <sup>st</sup>        |  |



| Scho | School of Science, Biotechnology Programme |  |  |           |                                     |  |  |
|------|--|--|--|-----------|-------------------------------------|--|--|
| No.  | Course<br>Code                             | Course Name  | Course Description:  | Credit    | Semester<br>Offered                 |  |  |
| 196  | 1100405                                    | Plant Genetic<br>Engineering<br>P: Gene Technology | Theories and practices of plant genetic engineering, i.e. plant transformation vectors, methods of plant transformation, selection and regeneration of transgenic plant; confirmation of the presence and expression of transgene; backcross breeding, applications of plant genetic engineering; concerns over transgenic plants, and safety guidelines for handling transgenic plants.   | 3 (2-3-5) | 1 <sup>st</sup>                     |  |  |
| 197  | 1103312                                    | Industrial<br>Microbiology<br>P: Microbiology      | Commercial exploitation of microorganisms; production of chemical compounds of economic values; antibiotics; enzymes; amino acids; organic acids; trends and prospects.  | 3 (2-3-5) | 1 <sup>st</sup>                     |  |  |
| 198  | 1105491                                    | Special Problem                                    | Undergraduate research on current issues of bioscience under guidance of supervisor.   | 3 (0-9-3) | 1 <sup>st</sup> and 2 <sup>nd</sup> |  |  |
| 199  | 1101101                                    | Professional Ethics                                | Moral principles and rules of conduct of research including<br>genetic manipulation; ethnics and biodiversity; ethics and<br>the environment; ethics and laws; current issues in<br>professional ethics.   | 1 (1-0-2) | 2 <sup>nd</sup>                     |  |  |
| 200  | 1100304                                    | Bioinformatics<br>P: Cell and<br>Molecular Biology | Data search on public databases; genome; DNA and protein sequences; protein structures; applications and trends.   | 3 (3-0-6) | 2 <sup>nd</sup>                     |  |  |
| 201  | 1100402                                    | Industrial<br>Biotechnology<br>P: Bioprocess       | Downstream processing; product separation and purification; bioremediation; waste treatment; production processes of biotechnological products in industry; alcoholic beverages production; dairy products; secondary metabolites; antibiotics; amino acids; vitamins; enzymes; polysaccharides, etc.; industrial field trip.  | 3 (3-0-6) | 2 <sup>nd</sup>                     |  |  |
| 202  | 1100313                                    | Plant Breeding<br>P: Genetics                      | Fundamental principles of plant breeding for crop improvement; review of plant reproduction, Mendelian genetics, linkage, and recombination, qualitative and quantitative traits; principles and concepts of inheritance, measurement of genetic variances, heritability, heterosis, simple and quantitative inheritance and genotype-environment interaction; in-depth coverage on classic methods for breeding self- and cross-pollinated crops; germplasm resources, genetic variability evaluation, introduction and conservation; systems of pollination controls in plants including self-incompatibility and male sterility; screening techniques, theory of selection and response to selection; establish plant breeding objectives and technique (for disease, insect, and abiotic stresses resistances); cultivar release, commercial aspects and related law, regulation and intellectual properties issuen; case study in economic crop breeding, International breeding efforts; emerging concepts in plant breeding, and application of modern technologies, including molecular markers, marker-assisted selection, and genetic transformation, to crop improvement. | 3 (2-3-5) | $2^{ m nd}$                         |  |  |



| Scho | School of Science, Biotechnology Programme |  |   |           |                     |  |
|------|--|--|---|-----------|---------------------|--|
| No.  | Course<br>Code                             | Course Name  | Course Description:   | Credit    | Semester<br>Offered |  |
| 203  | 1100404                                    | Economic Crop<br>Production<br>P: General Biology 2                    | Production of economic field crops for human and animal food, fiber, energy and industrial production; horticultural and ornamental crops for economic purposes; production factors; harvests; transportations; storing; processing; marketing management; special cultural practice e.g. soilless culture and organic crops.   | 3 (2-3-5) | 2 <sup>nd</sup>     |  |
| 204  | 1100403                                    | Medical and Pharmaceutical Biotechnology P: Introduction to Immunology | Screening for drug and drug development from microbes and plants; biogeneric drugs; pharmacokinetic and pharmacodynamics of drugs, drug approval and patent; vaccine research and development; biomolecule therapy e.g. hormones, enzyme, monoclonal antibody; gene therapy; drug delivery; diagnostics and screening methodology of diseases; bioethics in medical and pharmaceutical biotechnology and related current topics | 3 (3-0-6) | 2 <sup>nd</sup>     |  |
| Scho | ol of Sinol                                | ogy, Business Chi  | nese Programme  |           |                     |  |
| No   | Course<br>Code                             | Course Name  | Course Description:   | Credit    | Semester<br>Offered |  |
| 205  | 2404302                                    | Chinese Culture  | Background of Chinese customs and culture and their influence on values, morals, ethics and lifestyles of Chinese people.   | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 206  | 2404303                                    | Applied Classical<br>Chinese   | Chinese vocabularies, idioms and grammar featured in classical Chinese explained using modern Chinese.  | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 207  | 1016444                                    | Chinese Public<br>Speaking   | Vocabulary; idioms; postures and skills of public speaking in different occasions.  | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 208  | 1007430                                    | Business Chinese<br>Reading  | Reading of business-related texts and articles in order to interpret, analyze and summarize them  | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 209  | 1007440                                    | Business Chinese<br>Writing  | Methodology of the writing of general reports, research reports, business reports as well as annual reports   | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 210  | 1016448                                    | Chinese for<br>Secretarial Work  | Roles and responsibilities of a secretary; Chinese words, idioms and expressions used in workplaces; communication via telephones or other communicative devices; writing of meeting agenda minute.   | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 211  | 1016449                                    | Chinese for Public<br>Relations  | The use of written and spoken Chinese for public-relation purposes; presentation skills; news writing; brochuremaking.  | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 212  | 1016455                                    | Chinese for Airline<br>Business  | Chinese communication and specific vocabularies dealing with aviation business.   | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 213  | 1016446                                    | Chinese for Tour<br>Guides   | Roles and responsibilities of a tour guide; information about tourist attractions in Chinese; field practice of tour guiding in simulated and real situations.  | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 214  | 2408304                                    | Chinese for the<br>Hotel Industry                                      | Chinese vocabulary, expressions, and sentence patterns for<br>the hotel industry; conversation skills in Chinese for<br>offering service to hotel guests.   | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 215  | 2408305                                    | Chinese for Aviation<br>Industry                                       | Chinese vocabulary, expressions, and sentence patterns for providing information on air travel, explaining procedures for using airport services, explanations and problem solving in various situations when traveling.  | 3 (3-0-6) | 1 <sup>st</sup>     |  |



| Scho | School of Sinology, Business Chinese Programme |                                  |  |           |                     |  |  |
|------|--|----------------------------------|--|-----------|---------------------|--|--|
| No   | Course<br>Code                                 | Course Name                      | Course Description:  | Credit    | Semester<br>Offered |  |  |
| 216  | 2404305  | Introduction to<br>China         | A preliminary study of China's geography, demography, governmental system, economy and social science, science and technology, education, religions and culture.   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| 217  | 2404426  | Business Chinese<br>Conversation | Chinese conversation on different business occasions.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| 218  | 2404414  | Chinese Economy                  | Evolution of modern Chinese economy; the production aspect in different industries; local marketing and finance that influence China's international economy and trade.  | 3 (3-0-6) | 2 <sup>nd</sup>     |  |  |
| Scho | ol of Sinol                                    | logy, Chinese Lan                | guage and Culture Programme  |           |                     |  |  |
| No.  | Course<br>Code                                 | Course Name                      | Course Description:  | Credit    | Semester<br>Offered |  |  |
| 219  | 2404306  | Chinese Literature               | Characteristics of Chinese literature from ancient times to present; a selection of literary works from each dynasty.  | 3(3-0-6)  | 2 <sup>nd</sup>     |  |  |
| 220  | 2404307  | Chinese Philosophy               | Chinese philosophy, concepts and teachings; renowned schools of philosophers; vocabulary, idioms and grammar features as they appear in classical Chinese philosophy texts.  | 3(3-0-6)  | 2 <sup>nd</sup>     |  |  |
| 221  | 2404309  | Analy-Critical<br>Writing        | Writing to present and analysis of a situation, issue a problem; to compare between advantages and disadvantages of an issue; and to express opinions based on a careful study of a situation.   | 3(3-0-6)  | 2 <sup>nd</sup>     |  |  |
| 222  | 2404427  | Chinese for Tour<br>Guides       | Roles and responsibilities of a tour guide; information about tourist attractions in Chinese; field practice of tour guiding in simulated and real situations.   | 3(3-0-6)  | 2 <sup>nd</sup>     |  |  |
| 223  | 2404436  | Chinese for Airline<br>Business  | Introduction to Chinese vocabulary and knowledge of aviation business.   | 3(3-0-6)  | 2 <sup>nd</sup>     |  |  |
| Scho | ol of Sinol                                    | logy, Chinese Stud               | lies Programme   |           |                     |  |  |
| 224  | 2401361  | China's Public<br>Policy         | Background and characteristics of Trends of China's public policies since the establishment of the People's Republic of China up to the present.   | 3(3-0-6)  | 2 <sup>nd</sup>     |  |  |
| 225  | 2404413  | Chinese Politics                 | Chinese politics and government from 1949 to present.  | 3(3-0-6)  | 2 <sup>nd</sup>     |  |  |
| Scho | ol of Socia                                    | ıl Innovation, Inte              | rnational Development Programme  |           |                     |  |  |
| No.  | Course<br>Code                                 | Course Name                      | Course Description:  | Credit    | Semester<br>Offered |  |  |
| 226  | 2302101  | ASEAN Studies                    | An inter-disciplinary analysis of economic, political and socio-cultural aspects of ASEAN nations; success and failure of ASEAN in addressing and responding to regional and international issues through a wide range of content topics; problem-based learning and project-based learning strategies with creative and critical thinking and self-directed learning skill; awareness of the concept of peaceful coexistence and understanding diverse cultures in South East Asia. | 3 (3-0-6) | 1 <sup>st</sup>     |  |  |



| Scho | School of Social Innovation, International Development Programme |  |   |           |                     |  |  |
|------|--|--|---|-----------|---------------------|--|--|
| No.  | Course<br>Code   | Course Name  | Course Description:   | Credit    | Semester<br>Offered |  |  |
| 227  | 1004211  | International<br>Development<br>Theory                   | A solid basis in underlying international development concepts, theories and approaches to develop the analytical and practical skills to engage in developmental cross-disciplinary perspective through modernization theory, socialist and free-market ideology, dependency theory world-systems theory, Linear Stages of Growth Model, globalization theory, State Theory, neo-classical economic theory emphasizing the structural adjustment and contemporary trends theory – Post-development theory, sustainable development and Human development theory; links between modernity and development, globalization, empowerment, gender, political transformation and the environment, security, governance, and international political economy; focus and an inquiry into the multifaceted socio-eco-political processes that shape constructive development. | 3 (3-0-6) | 1 <sup>st</sup>     |  |  |
| 228  | 1004221  | International<br>Organizations and<br>International NGOs | Principle and concepts of international organizations and international non-governmental organizations (I-NGOs); important international organizations and international non-governmental organizations; roles of IGO and I-NGOs in international development.  | 3 (3-0-6) | 1 <sup>st</sup>     |  |  |
| 229  | 1004103  | Introduction to<br>Community<br>Development              | Sociological approaches to community development with particular reference to its application in the Southeast Asian context; examination of the concept of community development and its meanings across diverse areas of practice; key concepts, theories and practice in community development; students' awareness of a sociological perspective relevant to community development.   | 3 (3-0-6) | 1 <sup>st</sup>     |  |  |
| 230  | 1004252  | Economics of<br>Multinational<br>Corporation             | Theories and the analysis of transnational investment patterns; Foreign direct investment of Multinational corporations; Analysis of problems and economic and social impacts of transnational investment on the host countries; Transnational investment policy-making.  | 3 (3-0-6) | 1 <sup>st</sup>     |  |  |
| 231  | 1004222  | International<br>Politics of<br>Environment              | Rise of environmental issues on the world agenda; key concepts, mechanisms, and the principal international actors in the global environmental governance; international environmental policy; and politics of climate change and its repercussion.   | 3 (3-0-6) | 1 <sup>st</sup>     |  |  |
| 232  | 1004352  | Human Right<br>Studies                                   | Principles of international human rights; issues and policies associated with minority status in Southeast Asia from an interdisciplinary perspective; inferiorized and stigmatized minorities prejudice and discrimination in international human rights; strategies for change designed to gain recognition for minority rights to dignity, power and equality.   | 3 (3-0-6) | 1 <sup>st</sup>     |  |  |
| 233  | 1004453  | Transformational<br>Leadership                           | Definition, meaning and significance of leadership; overview of<br>the transformation leadership process; development of<br>leadership theories; elements of leadership theories; roles of<br>transformational leadership in many aspects of change<br>including political, economic and socio-cultural changes;<br>process of transforming organization toward external<br>circumstances; characteristics of desirable transformational<br>leadership  | 3 (3-0-6) | 1 <sup>st</sup>     |  |  |



| Scho | School of Social Innovation, International Development Programme |   |   |           |                     |  |
|------|--|---|---|-----------|---------------------|--|
| No.  | Course<br>Code   | Course Name   | Course Description:   | Credit    | Semester<br>Offered |  |
| 234  | 1004321  | ASEAN's<br>Development Policy   | Overview of ASEAN's regional development strategy; major factors affecting ASEAN policy-making; mechanism in ASEAN development cooperation; current development cooperation programs of ASEAN; role of ASEAN's functional cooperation in social development; economic integration and its impact on regional development.   | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 235  | 1004102  | Introduction to<br>International<br>Development   | Approach to International Development Studies through learning development theories; dimensions and dynamics of international development; links between the socio-ecopolitical developmental issues being consistent with globalization; roles of civil society and political society in national and international development issues based on ASEAN; analyzing post-development aspect through participation and empowerment, gender, human rights and human security.   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |
| 236  | 1004441  | Ethnicity and<br>Minority Rights  | Approach to distinguish ethnicity and race in terms of cultural factors such as nationality, culture, ancestry, language and belief, gender, class, and regional experiences; distinction of ethnics, indigenous, and minorities groups; rights and multicultural policies towards minorities in domestic and international law and protection of the rights of ethnic, religious, and linguistic minorities; articulation of the rights of indigenous peoples; multiculturalism and nations' rights to self-determination; theoretical literature on race and ethnicity focusing on issues of domination and subordination, and the historical emergence of racism and ethnic issues; theoretical approaches to the study of ethnicity and nationalism in anthropological literature; interrelated experiences of racial groups, community-building and cultural development, movements for social change; inter-ethnic relations. | 3 (3-0-6) | 1 <sup>st</sup>     |  |
| 237  | 1004212  | The United Nations<br>and Multinational<br>Organizations in<br>International<br>Development | Analysis of structures and functions of United Nations and multilateral organizations namely International Bank for Reconstruction and Development, International Monetary Fund, World Trade Organization, European Union, and Asian Development Bank in international development; United Nations development policies and development programs related to economy, society, security, environment, and human resources; success and critics of those multilateral organizations in international development.   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |
| 238  | 1004231  | Communication,<br>Democratization,<br>and Development                                       | Exploration of communication in political and developmental processes in national and transnational modern societies; approaches and behaviors in which political system, community leaders and citizens interact within the realm of networked communication; technological development for key interest groups concerning democracy and development   | 3 (3-0-6) | 2 <sup>nd</sup>     |  |



| Scho | ol of Socia    | l Innovation, Inte   | rnational Development Programme   |           |                     |
|------|----------------|--|---|-----------|---------------------|
| No.  | Course<br>Code | Course Name  | Course Description:   | Credit    | Semester<br>Offered |
| 239  | 1004252        | Economics of<br>Multinational<br>Corporation                                 | Theories and the analysis of transnational investment patterns; Foreign direct investment of Multinational corporations; Analysis of problems and economic and social impacts of transnational investment on the host countries; Transnational investment policy-making.  | 3 (3-0-6) | 2 <sup>nd</sup>     |
| 240  | 1004312        | Gender Issues in<br>International<br>Development                             | Study of gender concepts relating to gender division of labor; gender equality and equity; gender mainstreaming; violence against women; women's human rights; women's empowerment; women in development (WID); gender and development (GAD); women, the environment and sustainable development (WED); government policies and gender development; gender movement and advocacy; gender planning and budgeting.  | 3 (3-0-6) | 2 <sup>nd</sup>     |
| 241  | 1004313        | National Interest<br>and National<br>Development                             | Concept of national interest in government and international relations; examination of the structures, motivations, and major objectives of development policymaking; role of national interest in international development programs.  | 3 (3-0-6) | 2 <sup>nd</sup>     |
| 242  | 1004314        | Community<br>Research in<br>International<br>Development                     | Principle of action research; evolution of community research; instruments in community research methodology; application of community research in International Development; and field study.  | 3 (3-0-6) | 2 <sup>nd</sup>     |
| 243  | 1004332        | Transparency and<br>Good Governance in<br>Development                        | Causes and consequences of corruption in the developing<br>countries; roles of public managers in reducing the scope or<br>intensity of corruption; role of Good Governance in<br>bureaucratic system and national development.   | 3 (3-0-6) | 2 <sup>nd</sup>     |
| 244  | 1004411        | Project<br>Management for<br>International<br>Development                    | Key concepts in project management, skills, techniques, and stages in the project management cycle in development projects; Study on organization planning, controlling of project life cycle and practical knowledge on managing project scope, project conception, logical frameworks, network diagrams, scheduling techniques and work breakdown structure, resource allocation decisions, needs and impact assessment; Feasibility analysis, budgets and financial control, cost-benefit analysis, systems of accountability; Proposal and report writings. | 3 (3-0-6) | 2 <sup>nd</sup>     |
| 245  | 1004482        | Seminar in<br>Development in<br>ASEAN  | Reading and discussion focusing on the developmental programs in ASEAN countries from past to present; influence of internal and external factors on regional development; and review of ASEAN's current development policy and cooperation.  | 3 (3-0-6) | 2 <sup>nd</sup>     |
| 246  | 1004483        | Independent Study on<br>HM King Bhumipol<br>Adulyadej's Royal<br>Initiatives | Study of principles and concepts beneath the royal development projects through independent studies of self-selected project under the close supervision of advisors.   | 3 (3-0-6) | 2 <sup>nd</sup>     |