

## COURSE DETAILS

### 10103 Life Skills

(6 credits)

#### *Course Learning Outcomes*

1. To gain skills in communication, acquiring common knowledge, and using technology in everyday life.
2. To gain skills in thinking, analyzing and problem-solving in various situations.
3. To develop oneself in the areas of morality, ethics and human relations.

#### *Course Description*

To gain necessary life skills in society such as a hunger for knowledge, how to gain knowledge and continuously seek further self-development; be able to use technology efficiently; apply reasoning, analytical thinking, problem-solving, and negotiation skills; learn the principles of self-management, emotional control, and stress management; to develop oneself to have morality, ethics, proper human relationships, manners and etiquette.

### 10111 English for Communication

(6 credits)

#### *Course Learning Outcomes*

1. To be able to use English as a means for communication.
2. To study structures, vocabulary and important English idioms.
3. To equip students with skills in listening, speaking, reading and writing in English for accuracy and appropriateness in various situations

#### *Course Description*

Structure, vocabulary and English idioms used in listening, speaking, reading and writing English for communication.

### 10121 Human Civilization

(6 credits)

#### *Course Learning Outcomes*

1. To have knowledge on Eastern and Western civilization in terms of politics, economy, and society.
2. To understand human civilization in the past which is fundamental of the current civilization.
3. To realize and appreciate the values of human civilization.

#### *Course Description*

Knowledge on Eastern and Western civilization human has created in terms of politics, economy, society, wisdom, arts, as well as science and technology.

### 10131 Human Society

(6 credits)

#### *Course Learning Outcomes*

1. To understand the existence of human community and society.
2. To understand the political, legal, economic and social mechanisms affecting an organization of human society.
3. To promote the responsibility to the society and nation.

***Course Description***

Basic characteristics of being human; cohesion into communities and societies; human distribution and settlements; the components of society; human behavior in society; political, legal, economic and social mechanisms affecting the organization of human society; social problems and methods to solve them; promotion of a good society.

**10141 Science, Technology and Environment for Life****(6 credits)*****Course Learning Outcomes***

1. To gain knowledge about the concepts, rules and development of science and technology, and how they influence of thought and human livelihood.
2. To gain knowledge about the evolution of living things and human beings.
3. To understand the relationship between humans, the environment, and the effects of science and technology on the environment.
4. To gain knowledge of the applications of science, technology, and mathematics in daily life.
5. To enhance scientific thinking and awareness of the need for environmental preservation.

***Course Description***

Concepts, theories, critical thinking, rules and development of science and technology; natural history concerning human beings; the parts of the human body; humans and the environment; hygiene and nutrition; the application of science, technology, and mathematics in everyday life.

**10151 Thai Studies****(6 credits)*****Course Learning Outcomes***

1. To learn about Thailand's history, society, language and culture.
2. To be able to apply the course knowledge to daily life.
3. To understand and take pride in what it means to be Thai.

***Course Description***

Knowledge about Thai in terms of history, settlement, politics, economy, culture, religion and ritual, language and literature, arts and culture.

**10152 Thailand and the World Community****(6 credits)*****Course Learning Outcomes***

1. To be able to gain knowledge on situations, trends and characteristics of economic, social and political relations and changes in the world community which affect Thailand.
2. To gain knowledge on the status of Thailand in the world community.
3. To be able to analyze the problem as a result of globalization in various aspects including political, economical, social and culture and impact on moral and ethic.

***Course Description***

Status of Thailand in social world; dynamic of social changes which affecting Thailand; problems and causes of problems arising as a result of globalization which cause the awareness, knowledge and understanding of the situation; be able to analyze the cause of problem and the impact of Thai society in various aspect including political, economic, social, moral and ethical.

**10161 Thai for Communication****(6 credits)*****Course Learning Outcomes***

1. To be able to use Thai language as a tool for communication.
2. To improve language skill for communicate effectively and creatively.
3. To be able to use language in daily life and to pursuit of knowledge.

***Course Description***

Significance of language, idea and communication; the art of using word, sentence, idiom, phrase; development of listening, speaking, reading and writing skills to communicate effectively and creatively; using Thai language in daily life to pursuit of knowledge and transfer knowledge.

**10162 Chinese for Communication****(6 credits)*****Course Learning Outcomes***

1. To gain knowledge about Standard Chinese phonology, Mandarin phonetic alphabet (Hanyu Pinyin), and be able to write and pronounce the alphabet correctly.
2. To gain knowledge about Chinese characters--as basic words or assembled ones--and sentence structure and grammar for general communication, including practice with writing Chinese characters.
3. To be able to use Chinese in everyday life.

***Course Description***

Standard Chinese phonology, Hanyu Pinyin transcription, basic words, and dialogues for everyday use, structural grammar, and learn and practice writing of 550 Chinese characters.

**10163 Khmer for Communication****(6 credits)*****Course Learning Outcomes***

1. To possess knowledge on the phonology, letters, grammatical structure and basis sentence structure of Khmer.
2. To be able to use basic Khmer for communication in daily life.
3. To possess knowledge on Khmer words used in the Thai language.

***Course Description***

Khmer phonology; the practice of writing the Khmer alphabet; Crieng and Mul alphabets, basic Khmer words used in daily life; grammatical structure and basic sentence structure; listening, speaking, reading and writing skills for communication at the basic level; and Khmer words used in Thai language.

**10164 Social and Culture in the ASEAN Community****(6 credits)*****Course Learning Outcomes***

1. To be able to understand ASEAN background and history.
2. To be able to understand the purpose of the integration of ASEAN member states.
3. To be able to understand social and cultural condition of ASEAN member states.
4. To be able to understand the role and relationship of ASEAN and other nations.

***Course Description***

ASEAN background and history; the integration of ASEAN member states; social and cultural condition of ASEAN member states; the role and relationship of ASEAN and other nations.

**90201 Farm Management****(6 credits)*****Course Learning Outcomes***

1. Have basic knowledge about of farm management.
2. Analyze factors related to farm management.
3. Apply knowledge real farm management.

***Course Description***

Management principles and economic principles applied to farm management; factors determined types of farm; management of farm production factors; principles and practices in good farming; starting up a farm business; planning and budgeting a farm; management of farm credits; farm activities record; farm performances analysis; farm product market management; application of knowledge in farm management to agricultural extension and development.

**90204 Fundamental of Agriculture, Natural Resources and Environment****(6 credits)*****Course Learning Outcomes***

1. To provide knowledge of agriculture, natural resources, and the environment.
2. To promote understanding of the relationship among natural resources, the environment and agriculture.
3. To provide technological knowledge related to agriculture, natural resources, and the environment.

***Course Description***

The course outline will cover: Fundamentals of agriculture, natural resources, and environment. Relation of natural resources, environment, and agriculture. Technologies associated with agriculture, natural resources, and the environment.

**90307 Crop Production****(6 credits)*****Course Learning Outcomes***

1. To provide basic knowledge of entire system of crop production.
2. To provide knowledge of crop production management process.
3. To provide knowledge of adding value, distribution and trading of crop products.

***Course Description***

Basic knowledge of crop production, principles of crop production management, cropping system, concepts of crop production decision, crop production planning and farm layout, inputs management, plant propagation and sapling preparation, soil preparation and crop planting, cultural practice, harvest and post-harvest managements, value adding, distribution and trading of crop products.

**90406 Soil, Water, and Fertilizer Management****(6 credits)*****Course Learning Outcomes***

1. To enable students to explicate knowledge of soil, water, and fertilizer which is related to agriculture.
2. To enable students to explicate soil and water conservations.
3. To provide knowledge about information relating to soil, water, and fertilization for agricultural production and for production problem solving.
4. To enable students to apply information relating to soil, water, and fertilization for agricultural production and problem solving.
5. To enable students to explicate and apply innovation and technology relating to soil, water, and fertilizer to increase efficiency of agricultural production.

**Course Description**

Soil genesis; soil classification and soil survey; importance of soil in crop cultivated and animal feeding; water and water utilization in crop production; fertilizer and fertilizer utilization; problems of soil, water, and fertilizer with agriculture and problem solving; soil and water conservations; information relating to soil, water, and fertilizer and application for agriculture.

**91109 Fundamentals of Agricultural Extension and Development****(6 credits)****Course Learning Outcomes**

1. To have knowledge and understanding about basic problems, agricultural society conditions, trends and general policies in agriculture.
2. To have knowledge and understanding about concepts, theories, and principles about agricultural extension and development.
3. To have knowledge and understanding about development, extension officers, organizations, agricultural extension and development, and target groups in various areas.

**Course Description**

Farmer society conditions; changes in Thai farmer society and agricultural policies; concepts, philosophies, objectives, theories, and principles of agricultural extension and development; sustainable agricultural development; roles, duties, and human resource development; agricultural extension agencies; farmers, groups, organizations, networks, target institutions, volunteers development in agricultural extension and development; models, channels, communication technology, and agricultural extension and development methods; orientation, follow-up, and evaluation; management and agricultural development projects in urban area, suburban area, and rural area.

**91427 Community Forestry****(6 credits)****Course Learning Outcomes**

1. To obtain knowledge and comprehension of the background, concepts, principles, and the importance of community forestry.
2. To obtain knowledge and comprehension of community forestry approaches.
3. To be able to apply appropriate knowledge and technology for successfully community forestry operation.

**Course Description**

The course outline will cover: Principles and concepts of community forestry. Community organizations and stakeholders. Community study and analysis. Development of community forestry organizations and networks. Participatory forest resource management planning. Techniques and tools for community forestry. Community forests and management.

**93256 Skill Training in Crop Production****(6 credits)****Course Learning Outcomes**

1. To give students knowledge and skills in the whole crop production process.
2. To give students practical training in crop production.

**Course Description**

Practical application of principles and methods of crop production to develop skills in growing, handling, harvesting and post-harvest.

**93257 Plant Health Management****(6 credits)*****Course Learning Outcomes***

1. To have knowledge about plant health management principles.
2. To be able to identify important pest species.
3. To provide knowledge of the sources, outbreaks, plant damage, and pest diagnosis.
4. To have knowledge about the proper management of environmental factors in pest management.
5. To provide knowledge about pest control and prevention safely and sustainably.

***Course Description***

Plant health management for strength, pest resistance, plant immunity, and major pest management, including weeds, insect pests, animal pests, and plant diseases and their sources. Spreading of pest infestation and damage, pest diagnosis and abnormalities found on plants throughout the growth phase, and environmental factor management for safe and sustainable pest control and prevention.

**93335 Science for Crop Production****(6 credits)*****Course Learning Outcomes***

1. To give students knowledge and understanding of crop production science.
2. To give students knowledge and understanding of crop-environment interactions.
3. To enable students to apply science and technology to crop production.

***Course Description***

Application of science to crop cultivation and planning to maximize production efficiency; botany; crop physiology; crop-environment interactions; crop production analysis; and application of modern technology.

**93337 Crop Improvement and Plant Propagation****(6 credits)*****Course Learning Outcomes***

1. To give students knowledge and understanding of the principles and methods of crop breeding and propagation.
2. To enable students to choose the best varieties of crops to match their locality and market demand, and to conserve good varieties.
3. To enable students to apply their knowledge for business.

***Course Description***

Importance and types of crop varieties; characteristics of good varieties; crop breeding methods; selection of appropriate varieties; maintenance of good lines; crop propagation methods; seed technology, tissue culture and biotechnology; commercial application of crop improvement and plant propagation knowledge.

**93353 Innovation and Management of Commodity Crops****(6 credits)*****Course Learning Outcomes***

1. To enable students to classify crop products.
2. To provide basic knowledge of harvest and post-harvest managements of crop products.
3. To provide knowledge of value added management.
4. To provide basic knowledge of logistic management of crop products.
5. To enable students to apply innovation and technology on crop production management.

**Course Description**

Classification of crop products, physiology of postharvest crop products, applying of innovation and technology on harvest and postharvest managements of crop products, processing and value added of crop products. Logistic management of various crop products, crop product managements corresponding to trading standards and regulations.

**93354 Feeds and Feeding****(6 credits)****Course Learning Outcomes**

1. To provide knowledge about feeds and its nutrients.
2. To provide knowledge about the nutrient requirements of domestic animals.
3. To select and use suitable feedstuffs for domestic animals.
4. To provide knowledge about feed production processes.
5. To provide knowledge about animal feeding.

**Course Description**

This course will teach about feeds and its nutrients, nutrient requirements of domestic animals, feedstuffs, feed production processes, and animal feeding.

**93442 Professional Experience in Crop Production Management****(6 credits)****Course Learning Outcomes**

1. To enable students to apply knowledge of crop production management in real work.
2. To improve students' abilities to set and follow crop production plans.
3. To inculcate professional ethics and consciousness of social and environmental responsibility.

**Course Description**

Review and compilation of all crop production management knowledge to apply to projects; use of computers for crop production management; project formulation, feasibility studies, analysis and evaluation; adaptation or scaling of crop production projects; developing crop production projects that are suitable for natural resources and the environment; and morals, ethics and leadership in crop production management.

**93454 Information for Crop Production and Smart Farm****(6 credits)****Course Learning Outcomes**

1. To provide basic knowledge of data and information in crop production management.
2. Able to analyze, interpret and apply data and information in crop production management.
3. To provide basic knowledge in research for crop production management.
4. To provide basic knowledge of innovations and smart agricultural technologies related to crop production management.
5. Able to apply innovation and smart agricultural technology to crop production management.

**Course Description**

Fundamentals of using data and information statistics for crop production management, Fundamentals of research for crop production management, fundamental knowledge and application of innovative and smart agricultural technologies related to crop production management, and smart farm example.

**93455 Practical Training in Crop Production Management****(6 credits)*****Course Learning Outcomes***

1. To give students knowledge and understanding of the collection, analysis and presentation of data.
2. To give students knowledge of crop production management by observing case studies.
3. To enable students to gather data and learn from the real experiences of crop producers.
4. To enable students to analyze the success of different crop producers.

***Course Description***

Theoretical and practical training to build skills for collecting data on crop production, making questionnaires, analysis of crop production management and results, writing and presenting reports, forming and presenting recommendations, and case studies. This course includes actual field work and allows students to exchange ideas and information among themselves and with teachers and qualified experts.

**93456 Cereal and Forage Crop Production Management for Business****(6 credits)*****Course Learning Outcomes***

1. To enable students to explicate principles of cereal and forage crop production management.
2. To enable students to decision for cereal and forage crop productions conform with potential and circumstance of business.
3. To enable students to choose appropriate technology for cereal and forage crop productions conform with crop production and environmental conservation circumstances.
4. To enable students to explicate value adding and standards of cereal and forage crop production.

***Course Description***

Category of cereal and forage crops; concepts of production management, marketing, production input, production processes managements, production and post-harvest techniques; standards relevance to value added; decision of and appropriate technology selection for productions of importance cereal and forage crops of Thailand concerning production and environmental conservation circumstances, as well as relevance to potential of business.

**93457 Industrial Crop Production Management****(6 credits)*****Course Learning Outcomes***

1. To give students knowledge and understanding of industrial crop production management.
2. To give students the ability to make informed decisions on which industrial crops are suitable and economically feasible for different environments.
3. To give students the ability to choose appropriate industrial crop production technology for different conditions and to conserve the environment.
4. To enable students to manage industrial crop production efficiently.

***Course Description***

Types of industrial crops; concepts of production management, marketing, production factors, production processes, production techniques and post-harvest management; decision making and selection of appropriate industrial crop production technology to match the needs of commerce, the environment and environmental conservation.

**93458 Flowering and Ornamental Plant Production Management for Business****(6 credits)*****Course Learning Outcomes***

1. To gain basic knowledge of flowering and ornamental plants.
2. To gain knowledge of flowering and ornamental plant's business and marketing.
3. To be able to make decision on production of flowering and ornamental crops for business.
4. To be able to apply appropriate technology for flowering and ornamental plant production management.
5. To gain knowledge of value added on flowering and ornamental plant products.

***Course Description***

Basic knowledge of flowering and ornamental plants, production business, marketing of flowering and ornamental plant, making decision on flowering and ornamental plant production, production processes, flowering and ornamental plant production technology and applying appropriate technology, value added on flowering and ornamental plant.

**93467 Fruit Production Management****(6 credits)*****Course Learning Outcomes***

1. To provide knowledge and understanding of fruit production management.
2. To provide knowledge and ability in fruit produce decision according to potential and business environment.
3. To provide knowledge and ability in using technology for fruit production suitable to environment and conservation.

***Course Description***

This course will provide knowledge of fruit, Types of fruit tree, production management concepts, marketing, production factors, production process management, production techniques and postharvest practices. Decision and using technology for economic importance fruit trees production in Thailand to suit the production environment and environmental conservation are according to potential of business.

**93468 Vegetable Production Management****(6 credits)*****Course Learning Outcomes***

1. To provide knowledge and understanding of vegetable production management.
2. To provide knowledge and ability in vegetable produce decision according to potential and business environment.
3. To provide knowledge and ability in using technology for vegetable production suitable to environment and conservation.

***Course Description***

This course will provide knowledge of vegetable, types of vegetable, production management concepts, marketing, production factors, production process management, production techniques and postharvest practices. Decision and using technology for economic importance vegetable production in Thailand to suit the production environment and environmental conservation are according to potential of business.

**93470 Landscape Business****(6 credits)*****Course Learning Outcomes***

1. To be able to explain the important of landscape, history of landscape and type of landscape.
2. To be able to explain landscape business and related business.
3. To be able to design landscape.
4. To gain knowledge of landscape cost estimate, auction and making a contract of landscaping work.
5. To gain knowledge of landscape construction and maintenance.

***Course Description***

An importance of landscape, history of landscape and type of landscape, Landscape and involve business, basic of landscape design, landscape construction and design, hard scape and design, landscape system and design, designing and landscape drawing by computer program, landscape cost estimation, landscape auction and landscape contract, step of landscape construction, landscape maintenance, tree trimming, landscape ethic and case study of landscape.

**93471 Sustainable Agriculture****(6 credits)*****Course Learning Outcomes***

1. To provide students with basic knowledge about sustainable agriculture.
2. To provide knowledge in term of forms, principles, and elements of various sustainable agriculture systems.
3. To provide knowledge in all part of the management of various sustainable agriculture systems and understand in case study.

***Course Description***

The origin and development of Sustainable Agriculture meaning and Importance, Conceptual framework, Basic principles general principles Approach to components of the feasibility of sustainable agricultural conditions. Forms, principles, and components of various sustainable agriculture systems Sustainable agriculture management and case studies such as shifting cultivation system management and case studies. Integrated Agricultural System Management and case example Agroforestry system management and case studies Management of natural agriculture and case studies Agricultural Management, New Theory, and Case Examples Sophisticated agriculture management and case studies Organic farming management and case studies and the management of agriculture that is more than organic agriculture and example cases, etc.

**93472 Crop Production in Smart Greenhouse and Plant Factory****(6 credits)*****Course Learning Outcomes***

1. To enable students to analyze and indicate factors which effect on crop production.
2. To enable students to do business planning for crop production in smart greenhouse and plant factory.
3. To enable students to design crop production and farm layout for smart greenhouse and plant factory.
4. To provide knowledge about crop production management in smart greenhouse and plant factory.

***Course Description***

Basic knowledge of and business planning for crop production in smart greenhouses and plant factories; factors effect on and characteristics of greenhouses; design of greenhouse and lay out of farm; cropping system, and light, atmosphere, water and nutrients managements in smart greenhouses and plant factories; maintenance of smart system and controls in greenhouse; post-harvest management and marketing of products from smart greenhouses and plant factories; a case study of crop production in smart greenhouses and a case of that in plant factory.

**94329 Fundamentals of Agribusiness and Entrepreneurship****(6 credits)*****Course Learning Outcomes***

1. In order to have knowledge and understanding of agribusiness and agribusiness management.
2. In order to have knowledge and understanding about agribusiness entrepreneurship.
3. In order to be able to apply knowledge to agribusiness and entrepreneurship.

***Course Description***

The concept and importance of agribusiness; agribusiness system from the production factor business, agricultural production business, agricultural processing business and agricultural products distribution business; including support in the operation of agricultural business; concept of agribusiness management; organization and organizational behavior in agribusiness; Human Resource Management in agribusiness.

The concept and importance of entrepreneurship; types of entrepreneurs in agribusiness; entrepreneurship strategy creativity and the adaptation of agribusiness to change; modern business; characteristics of agribusiness operations in Thailand and abroad and having good governance and ethics in agribusiness operations.

**94462 International Agribusiness****(6 credits)*****Course Learning Outcomes***

1. To give students knowledge and understanding of principles and theories related to international agribusiness.
2. To give students knowledge and understanding of international agribusiness management.
3. To enable students to apply their knowledge to international agribusiness management.

***Course Description***

Principles and theories related to international business; international trade in the national and global levels; international corporations related to agribusiness; and the roles of the public sector to international agribusiness; information for international agribusiness management; international agribusiness strategies; cross cultural consumer behavior to agricultural products; international agribusiness management including marketing, finance, logistics, and agricultural goods standards for international trades; export and import; and relevant laws and regulations.

**94464 Management of Logistics and Supply Chains in Agribusiness****(6 credits)*****Course Learning Outcomes***

1. To give students knowledge and understanding of logistics management.
2. To give students knowledge and understanding of supply chain management.
3. To enable students to apply knowledge gained to agribusiness operation.

***Course Description***

Concepts of basic constructs being management factors supporting logistics and supply chain activities and operations; customer requirements and services, procurement and delivery, inventory management, warehousing, multimodal transportation, supplier and customer relationships, network design, performance measurements, related information systems, competitive status and potential evaluation for business capacity building in response to customer requirements, increasing safety and confidence, and resulting in cost reduction depending on logistics activities.

**94465 Agribusiness and Entrepreneurial Development****(6 credits)*****Course Learning Outcomes***

1. To give students knowledge of agribusiness development and entrepreneurial management.
2. To enable students to determine appropriate strategies and methods for agribusiness development and entrepreneurial management.
3. To enable students to apply the knowledge to develop business models and agribusiness development plan.

***Course Description***

Concepts of agribusiness development and entrepreneurial management leading to competitive advantage; development of business models for agricultural goods and services; agribusiness development strategies; research and development; utilizations of innovations in agribusiness; knowledge management; entrepreneurship development including entrepreneurial orientation and competence; development of organizational culture and leadership to bring agribusiness to sustainable growth.

**Last updated: 18-July-2023**