

program specification

1. Program title:

Bachelor of Science Program in Food Process Engineering

2. Mode of the study

Full time (4 years)

3. Semester period

1st semester : August-December

2nd semester : January-May

4. Typical entry requirements

Applicants can be Thai and Foreign Students who have very good skill in Thai language for their education.

Qualifications: High school graduates on Science-Math program. The qualifications of applicants also are in accordance to the regulations of King Mongkut's Institute of Technology Ladkrabang regarding Bachelor's Degree Education 2011.

5. Program aims/Objectives

To produce graduates who have characteristics as follows:

5.1 to acquire knowledge in the field of sciences and technology involving food process engineering and industrial management to effectively work in public and private sectors and also to continue their academic career.

5.2 to morally and ethically earn a living with professional ethics and to be responsible for society and environment.

6. Program Learning Outcomes (PLO)

Students will be able to apply scientific knowledge and industrial management involving food process engineering for working in food industry.

The class will focus on active learning technique. Students have a chance to enroll in the courses or choose the topic research to develop their skills and knowledges.

7. Program structure

Total credits **144** credits

Year 1 Semester 1

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
90595001	FOUNDATION ENGLISH	3(3-0-6)
90595002	ENGLISH FOR COMMUNICATION	3(3-0-6)
05106701	ELEMENTARY CHEMISTRY	3(3-0-6)
05106702	ELEMENTARY CHEMISTRY LABORATORY	1(0-3-2)
05016200	GENERAL CALCULUS	3(3-0-6)
08036521	PROGRAMMING AND SOFTWARES FOR FOOD PROCESS ENGINEERING	3 (2-3-6)
90591XXX	GENERAL EDUCATION ELECTIVE IN VALUE OF LIFE	3(X-X-X)
Total		<u>19</u>

Year 1 Semester 2

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
90595003	ENGLISH FOR ACADEMIC PURPOSES	3(3-0-6)
05016206	MATRIX AND ORDINARY DIFFERENTIAL EQUATIONS	3(3-0-6)
05106713	ORGANIC CHEMISTRY 1	3(3-0-6)
05106714	ORGANIC CHEMISTRY LABORATORY 1	1(0-3-2)
08016430	INTRODUCTION TO AGRICULTURAL INDUSTRY	3(3-0-6)
08036520	ENGINEERING DRAWING	3(2-3-6)
90591001	I LOVE KMITL	2(1-2-3)
90591002	SPORTS AND RECREATIONAL ACTIVITIES	1(0-3-2)
Total		<u>19</u>

Year 2 Semester 1

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
9059xxxx	ELECTIVE IN GENERAL EDUCATION	3(x-x-x)
05106715	PRINCIPLE OF BIOCHEMISTRY	3(3-0-6)
05106716	EXPERIMENT IN PRINCIPLE OF BIOCHEMISTRY	1(0-3-2)
05306711	FUNDAMENTAL PHYSICS 1	3(3-0-6)
05306712	FUNDAMENTAL PHYSICS LABORATORY1	1(0-3-2)
08036522	THERMODYNAMICS	3(3-0-6)
90595XXX	GENERAL EDUCATION ELECTIVE IN LANGUAGE AND COMMUNICATION	3(X-X-X)
90592XXX	GENERAL EDUCATION ELECTIVE IN WAY OF SOCIETY	3(X-X-X)
Total		<u>20</u>

Year 2 Semester 2

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
05106810	ANALYTICAL CHEMISTRY	3(3-0-6)
05106811	ANALYTICAL CHEMISTRY LABORATORY	1(0-3-2)
05206003	GENERAL MICROBIOLOGY	3(3-0-6)
05206004	GENERAL MICROBIOLOGY LABORATORY	1(0-3-2)
05306713	FUNDAMENTAL PHYSICS 2	3(3-0-6)
05306714	FUNDAMENTAL PHYSICS LABORATORY 2	1(0-3-2)
05406001	ELEMENTARY STATISTICS	3(3-0-6)
08016402	FOOD CHEMISTRY	3(2-3-6)
XXXXXXXXX	FREE ELECTIVE	3(X-X-X)
Total		<u>21</u>

Year 3 Semester1

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
08026410	FOOD MICROBIOLOGY	4(3-3-8)
08036624	MOMENTUM HEAT AND MASS TRANSFER	3(3-0-6)
08036627	PHYSICAL PROPERTIES OF BIOLOGICAL MATERIAL	3(2-3-6)
08036622	FOOD PROCESS ENGINEERING 1	3(2-3-6)
08036621	QUALITY CONTROL AND ASSURANCE FOR FOOD PRODUCTS	3(3-0-6)
08036626	ELECTRICAL AND MECHANICAL TECHNOLOGY	3(2-3-6)
080XXXXX	MAJOR ELECTIVE	3(X-X-X)
Total		<u>22</u>

Year 3 Semester2

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
08036620	FOOD PROCESSING	4(3-3-8)
08016436	EXPERIMENTAL DESIGN FOR AGRICULTURAL INDUSTRY	3(3-0-6)
08036630	SAFETY ENGINEERING	3(3-0-6)
08036623	FOOD PROCESS ENGINEERING 2	3(2-3-6)
08036625	MEASUREMENT TECHNIQUES AND INSTRUMENT IN FOOD ENGINEERING	3(2-3-6)
90593XXX	GENERAL EDUCATION ELECTIVE IN SCIENCE OF THINKING	3(X-X-X)
080XXXXX	MAJOR ELECTIVE	3(X-X-X)
Total		<u>22</u>

Year 3 Summer

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
08026413	INDUSTRIAL PRACTICE	0(0-150-0)
Total		<u>0</u>

Year 4 Semester1

Regular Program

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
08036820	SPECIAL PROBLEM 1	3(1-6-5)
08036629	INDUSTRIAL FOOD PLANT DESIGN	3(3-0-6)
08036628	FOOD INDUSTRY MANAGEMENT	3(3-0-6)
90594XXX	GENERAL EDUCATION ELECTIVE INART OF MANAGEMENT	3(X-X-X)
080XXXXX	MAJOR ELECTIVE	3(X-X-X)
Total		<u>15</u>

Year 4 Semester1

Co-operative Program

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
08036629	INDUSTRIAL FOOD PLANT DESIGN	3(3-0-6)
08036628	FOOD INDUSTRY MANAGEMENT	3(3-0-6)
08036822	PRE-COOPERATIVE EDUCATION (NON-CREDIT ASSESSMENT)	1(1-0-2)
080XXXXX	MAJOR ELECTIVE	3(X-X-X)
90594XXX	GENERAL EDUCATION ELECTIVE INART OF MANAGEMENT	3(X-X-X)
XXXXXXXXXX	FREE ELECTIVE	3(X-X-X)
Total		<u>15</u>

Year 4 Semester 1
International Internship Program

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
08036629	INDUSTRIAL FOOD PLANT DESIGN	3(3-0-6)
08036628	FOOD INDUSTRY MANAGEMENT	3(3-0-6)
08036824	PRE-OVERSEA TRAINING	1(1-0-2)
080XXXXX	MAJOR ELECTIVE	3(X-X-X)
90594XXX	GENERAL EDUCATION ELECTIVE INART OF MANAGEMENT	3(X-X-X)
XXXXXXXX	FREE ELECTIVE	3(X-X-X)
Total		<u>15</u>

Year 4 Semester 2
Regular Program

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
08036821	SPECIAL PROBLEM 2	3(0-9-0)
XXXXXXXX	FREE ELECTIVE	3(X-X-X)
Total		<u>6</u>

Year 4 Semester 2
Co-operative Program

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
08036823	COOPERATIVE EDUCATION	6(0-45-0)
Total		<u>6</u>

Year 4 Semester 2
International Internship Program

Course Code	Course Name	Credit (Lecture-Lab-Self Study)
08036825	OVERSEA TRAINING	6(0-45-0)
Total		<u>6</u>

8. Facilities available

Library, Computer room, and equipment to support laboratory and research works such as Food process engineering, Unit operations, Food chemistry, Food microbiology and food safety, etc.

9. Career prospects

Graduates can find employment in

9.1 Food scientist

9.2 Food researcher

9.3 Food technician

9.4 Employee in food industries

e.g. food factory , food service center , food supplier and etc.

10. Tuition fee

21,000 Baht per semester.