

This program aims at producing knowledgeable graduates with advanced research capabilities in integrating basic engineering principles into the science of life and/or medicine to study, analyze, create understanding, synthesize useful science and develop new knowledge of advanced biological systems at both molecular and cellular levels.

The goal of the program is to develop educational and research personnel in the field of biological engineering of the country to be able to learn and develop knowledge that will be useful for solving biological system problems by themselves, which will strengthen Thailand's healthcare system as well as create a good relationship between human life and the environment for a truly better life.

Applicant Qualifications

1. A candidate must hold a master's degree or equivalent in science, engineering, medicine, pharmacy, or other related fields, depending on the consideration of the program committee.
2. A candidate must hold a bachelor's degree with very good academic results (with a GPA of not less than 3.50 from the 4.00 system).

Professions after Graduation

Biological engineering

1. Researcher/academic
2. Entrepreneur/business owner
3. Project or business consultant
4. Research project analyst
5. Sales engineer or Services and techniques engineer

Curriculum

Plan 1.1 for student with Master degree	48 Credits
Plan 2.2 for student with Bachelor degree	75 Credits

Curriculum Components

Plan 1.1 for student with Master degree		
● Seminar	6	Credits (S/U)
● Dissertation	48	Credits
Plan 2.2 for student with Master degree		
● Major Course	12	Credits
● Elective Course	15	Credits
● Seminar	6	Credits (S/U)
● Dissertation	48	Credits

COURSE STRUCTURE

Plan 1.1 for student with Master degree

First Year

First Semester	Credits
BIE 793 Seminar in Biological Engineering V	1 (0-2-4) (S/U)
BIE 792 Dissertation	6 (0-12-24)
Total	6 (0-14-28)

Second Semester	Credits
BIE 794 Seminar in Biological Engineering VI	1 (0-2-4) (S/U)
BIE 792 Dissertation	9 (0-18-36)
Total	9 (0-20-40)

Second Year

First Semester	Credits
BIE 795 Seminar in Biological Engineering VII	1 (0-2-4) (S/U)
BIE 792 Dissertation	9 (0-18-36)
Total	9 (0-20-40)

Second Semester	Credits
BIE 796 Seminar in Biological Engineering VIII	1 (0-2-4) (S/U)
BIE 792 Dissertation	9 (0-18-36)
Total	9 (0-20-40)

Third Year

First Semester	Credits
BIE 797 Seminar in Biological Engineering IX	1 (0-2-4) (S/U)
BIE 792 Dissertation	9 (0-18-36)
Total	9 (0-20-40)

Second Semester	Credits
BIE 798 Seminar in Biological Engineering X	1 (0-2-4) (S/U)
BIE 792 Dissertation	6 (0-12-24)
Total	6 (0-14-28)

Plan 2.2 for student with Bachelor degree

First Year

First Semester	Credits
BIE 600 Introduction to Biological Engineering	3 (3-0-9)

Doctor of Philosophy Program in Biological Engineering

BIE 601 Advanced Biological Engineering	3 (3-0-9)
BIE 602 Experimental Techniques in Biological Engineering	3 (0-6-12)
BIE 793 Seminar in Biological Engineering V	1 (0-2-4) (S/U)
Total	9 (6-8-34)

Second Semester	Credits
BIE 500 Mathematical Modeling in Biological Engineering	3 (3-0-9)
BIE 794 Seminar in Biological Engineering VI	1 (0-2-4) (S/U)
BIE xxx Selective Course1	3 (3-0-9)
BIE xxx Selective Course2	3 (3-0-9)
XXX xxx Selective Course3	3 (3-0-9)
Total	12 (12-2-40)

Second Year

First Semester	Credits
BIE 795 Seminar in Biological Engineering VII	1 (0-2-4) (S/U)
XXX xxx Selective Course4	3 (3-0-9)
BIE 792 Dissertation	6 (0-12-24)
Total	9 (3-14-37)

Second Semester	Credits
BIE 796 Seminar in Biological Engineering VIII	1 (0-2-4) (S/U)
XXX xxx Selective Course5	3 (3-0-9)
BIE 792 Dissertation	6 (0-12-24)
Total	9 (3-14-37)

Third Year

First Semester	Credits
BIE 797 Seminar in Biological Engineering IX	1 (0-2-4) (S/U)
BIE 792 Dissertation	6 (0-12-24)
Total	6 (0-14-28)

Second Semester	Credits
BIE 798 Seminar in Biological Engineering X	1 (0-2-4) (S/U)
BIE 792 Dissertation	6 (0-12-24)
Total	6 (0-14-28)



Faculty of Engineering

Doctor of Philosophy Program in Biological Engineering

Forth Year

First Semester

BIE 792 Dissertation

Total

Credits

6 (0-12-24)

6 (0-14-28)

Second Semester

BIE 792 Dissertation

Total

Credits

6 (0-12-24)

6 (0-14-28)