Bachelor of Engineering Program in Environmental Engineering (International Program)

B.Eng. (Environmental Engineering)

Philosophy of the program

This program produces graduates who are knowledgeable in environmental engineering in both theory and practice. They can adapt various technologies to real situations to prevent environmental degradation as a result of human activities together with solving environmental problems efficiently. They are also equipped with the morals and ethics of engineers who can communicate fluently in English for working locally and internationally.

Professions after graduation:

1. Environmental engineers, who are able to design, control, regulate and administer systems; for example, water supply system, drainage and sewage disposal system, waste management system and hazardous waste, air pollution, noise pollution and vibration control systems etc.
2. Researchers/Specialists in environment and related fields such as energy and chemistry
3. Lecturers in science and technology institutions

Curriculum

Total Program Credits **144 Credits**

Curriculum Components

General Education Courses **31 Credits**

Major Courses **107 Credits**

Engineering Foundation Course	**22 Credits**
Science and Mathematics Course	**21 Credits**
Environmental Engineering Course	**55 Credits**
Elective Course	**9 Credits**

Free Elective Courses **6 Credits**

COURSE STRUCTURE

First Year

First Semester	Credits
CPE 100 Computer Programming for Engineers	3(2-2-6)
CVE 111 Engineering Drawing	3(2-3-6)
LNG 105 Academic English for International Students or LNG 106 Academic Listening and Speaking	3 (3-0-6)
PRE 151 Engineering Materials	3(3-0-6)
MTH 101 Mathematics I	3(3-0-6)
PHY 103 General Physics for Engineering Student I	3(3-0-6)
PHY 191 General Physics Laboratory I	1(0-2-2)
Total	19(16-7-38)

Second Semester | **Credits**

Course	Credits
CHM 103 Fundamental Chemistry	3(3-0-6)
CHM 160 Chemistry Laboratory	1(0-3-2)
CVE 131 Engineering Mechanics I	3(3-0-6)
LNG 106 Academic Listening and Speaking or	3 (3-0-6)
LNG 107 Academic Reading and Writing	
MTH 102 Mathematics II	3(3-0-6)
PHY 104 General Physics for Engineering Student II	3(3-0-6)
PHY 192 General Physics Laboratory II	1(0-2-2)
GEN 111 Man and Ethics of Living	3(3-0-6)
Total	20(18-5-40)

Second Year

First Semester | **Credits**

Course	Credits
ENV 210 Fundametal in Environmental Engineering	2(2-0-4)
ENV 213 Surveying for Environmental Engineering	3(2-3-6)
EEE 100 Electrotechnology (Power)	3(3-0-6)
MTH 201 Mathematics III	3(3-0-6)
GEN 101 Physical Education	1(0-2-2)
GEN 121 Learning and Problem Solving Skills	3(3-0-6)
GEN 231 Miracle of Thinking	3(3-0-6)
Total	18(16-5-36)

Second Semester | **Credits**

Course	Credits
CVE 282 Hydraulic for Environmental Engineering	3(3-0-6)
ENV 211 Environmental Chemistry	3(3-0-6)
ENV 212 Environmental Chemistry and Microbiology Laboratory	1(0-3-2)
ENV 214 Environmental Engineering Statistics	3(3-0-6)
ENV 215 Environmental Biology	3(3-0-6)
LNG 107 Academic Reading and Writing or	3 (3-0-6)
LNG XXX	
GEN 241 Beauty of Life	3(3-0-6)
Total	19(18-3-38)

Third Year

First Semester | **Credits**

Course	Credits
CVE 385 Hydrology	3(3-0-6)
CVE 394 Hydraulic Laboratory	1(0-3-2)
ENV 341 Unit Operation in Environmental Engineering	3(3-0-6)
ENV 344 Biological Unit Processes in Environmental Engineering	3(3-0-6)
ENV 345 Environmental Engineering Laboratory	1(0-3-2)

ENV 371 Solid Waste Management	3(3-0-6)
GEN 351 Modern Management and Leadership	3(3-0-6)
GEN xxx General Education I	3(x-x-x)
Total	20(15+x-6+x-34+x)

Second Semester | **Credits**

ENV 337 Computer Application in Environmental Engineering	3(3-0-6)
ENV 343 Building Sanitation	3(3-0-6)
ENV 372 Hazardous Waste Management	3(3-0-6)
ENV 381 Air Pollution Control Engineering	3(3-0-6)
XXX xxx Free Elective I	3(x-x-x)
GEN xxx General Education II	3(x-x-x)
Total	18(12+x-x-24+x)

Summer Session

ENV 300 Industrial Training	2(S/U)

Forth Year

First Semester | **Credits**

ENV 401 Environmental Engineering Project Proposal	1(0-2-2)
ENV 434 Environmental Impact Assessment and Management	3(3-0-6)
ENV 442 Water Supply Engineering	3(3-0-6)
ENV 445 Wastewater Engineering and Design	3(3-1-6)
ENV 482 Noise and Vibration Control	3(3-0-6)
XXX xxx Free Elective II	3(x-x-x)
Total	16(12+x-3+x-26+x)

Second Semester | **Credits**

ENV 402 Environmental Engineering Project	3(0-6-6)
ENV xxx Environmental Engineering Elective I	3(x-x-x)
ENV xxx Environmental Engineering Elective II	3(x-x-x)
YYY xxx Engineering Elective	3(x-x-x)
Total	12(x-6+x-6+x)