



Students who graduate from this program are qualified to apply for the licenses for Scientific and Technological Professional Practice in Environmental Impacts Assessment, and in Pollution Control as:

- 1) Water Pollution Supervisor
- 2) Air Pollution Supervisor
- 3) Noise and Vibration Pollution Supervisor
- 4) Hazardous Waste Supervisor
- 5) Solid Waste Supervisor



## Vision

As one of the top 200 world's best program in Environmental Science (QS World Rankings) from 2011-2021, the Department of Environmental Science at Chulalongkorn University provides high quality learning environment for its students. The program offers various courses that expose students to scientific principles, laboratory and field practice, and real-world situations related to environmental issues. Armed with knowledge and working skills in environmental science, students who graduate from this program are qualified for positions in most industrial and governmental sectors and most graduate programs in renowned institutes. Overall, we aim at producing graduates that are not only employable and academically successful but they should also become motivated to lead the society to sustainability.



### Further Information

Department of Environmental Science  
Faculty of Science, Chulalongkorn University

0-2218-5181-2

0-2218-5180

<http://www.envisci.sc.chula.ac.th>



## B.Sc. in Environmental Science



The best & only program in Thailand being ranked in the world's top 200 in Environmental Science for 10 years in a row (2011- 2021)

## Curriculum for Bachelor of Science (B.S.) In Environmental Science

### 1<sup>st</sup> Year

1 <sup>st</sup> Semester	19 credits
2301113 Calculus 1	4
2302111 General Chemistry 1	3
2302115 General Chemistry Lab 1	1
2303101 General Biology 1	3
2303102 General Biology Lab 1	1
2304101 General Physics 1	3
2304183 General Physics Lab 1	1
5500111 Experiential English 1	3

2 <sup>nd</sup> Semester	21 credits
2301114 Calculus 2	3
2301170 Computer and Programming	3
2302112 General Chemistry 2	3
2302116 General Chemistry Lab 2	1
2305101 General Biology 2	3
2305102 General Biology Lab 2	1
2304102 General Physics 2	3
2304184 General Physics Lab 2	1
5500112 Experiential English 2	3

### 2<sup>nd</sup> Year

1 <sup>st</sup> Semester	20 credits
2302236 Physical Chemistry	2
2302271 Organic Chemistry 1	3
2302273 Organic Chemistry Lab 1	1
2303221 Ecology	3
2303222 Ecology Lab	1
2308351 Environmental Science 1	3
2308359 Environmental Science Lab	1
5500204 English for Academic Purpose 1 (For Science)	3
xxxxxxx General Education (Science-Mathematics)	3

2 <sup>nd</sup> Semester	22 credits
2301286 Probability and Statistics	3
2302272 Organic Chemistry 2	3
2308317 Aquatic Environmental Science	3
2308320 Introduction to Hazardous Waste	3
2308352 Environmental Toxicology	3
2308357 Environmental Noise	3
2308456 Aquatic Environmental Science Lab	1
xxxxxxx General Education (Social Science)	3

### 3<sup>rd</sup> Year

1 <sup>st</sup> Semester	21 credits
2302241 Analytical Chemistry 1	3
2302242 Analytical Chemistry Lab 1	2
2308366 Fundamental of Solid Waste Management	3
2308451 Environmental Soil Science	3
2308453 Environmental Soil Science Lab	1
2308498 Science Research Methods	2
2310310 General Biochemistry	3
2310360 General Biochemistry Lab	1
5500496 Communication in Science and Technology	3

2 <sup>nd</sup> Semester	20 credits
2308309 Fundamental Air Pollution	3
2308310 Air and Noise Pollution Lab	1
2308399 Project Proposal	1
2308401 Fundamental Natural Resources and Environmental Management	3
2308418 Environmental Remediation Technology	3
2308421 Environmental Management System	3
xxxxxxx General Education (Humanities)	3
xxxxxxx General Education (Interdisciplinary Courses)	3

### 4<sup>th</sup> Year

1 <sup>st</sup> Semester	16 credits
2308390 Training	0
2308419 Principles of Biodegradation and Bioremediation	3
2308468 Scientific Approach in Environmental Impact Assessment	3
2308490 Seminar	1
2308xxx Major Elective	3
xxxxxxx General Education (Special)	3
xxxxxxx Free Elective	3

2 <sup>nd</sup> Semester	6 credits
2308408 Environmental Science Field Studies	1
2308499 Senior Project	2
xxxxxxx Free Elective	3

## Environmental Field Study

This course allows students to apply their in-class knowledge to the real, on-site situations. Students pose questions and design their own experiments to tackle the questions related to environmental issues, such as assessments of soil, water contamination and health risks in residential and industrial areas.

## Career Opportunities

- ◉ Environmental Pollution Supervisor
- ◉ Environmental Impacts Analyst
- ◉ Environmental Officer
- ◉ Environmental Scientist
- ◉ Environmental Researcher
- ◉ Environmental Manager
- ◉ Environmental Lawyer

with leading private corporations, universities, non-governmental, organizations, and governmental agencies

## Past internship opportunities for students in the program

- ◉ SCG Excellent Internship Program
- ◉ Siam Kubota Challenge
- ◉ PPG Coatings (Thailand) Co., Ltd.
- ◉ Department of Health, Ministry of Health, Thailand
- ◉ Chevron Thailand Exploration and Production, Ltd.
- ◉ Environmental sector, Electricity Generating Authority of Thailand
- ◉ Thai Oil Public Co., Ltd.
- ◉ Siam City Concrete Co., Ltd.
- ◉ Bangchak Petroleum Public Co., Ltd.
- ◉ PTT Plc. In Chonburi
- ◉ PTT Exploration and Production
- ◉ SCG in Kang Koi, Saraburi
- ◉ PTT Global Chemical Public Co., Ltd.
- ◉ IRPC Public Co., Ltd.
- ◉ Airports of Thailand Public Co., Ltd.



- ◉ Thai Ceramic Co., Ltd. (SCG)
- ◉ United Analyst and Engineering Consultant Co., Ltd.
- ◉ PTT Rayong Gas Separation Plant
- ◉ CPF PCL.
- ◉ Pollution Control Department
- ◉ Industrial Estate Authority of Thailand
- ◉ Department of Environment, Bangkok Metropolitan Administration
- ◉ Independent Commission on Environment and Health
- ◉ Water Technology and Industrial Pollution Management Bureau
- ◉ Metropolitan Waterworks Authority
- ◉ Paid internships abroad