

Course Syllabus

1. **Course title :** Introduction to Environmental Technology

2. **Course code:** GFET130110

3. **Credit units:** 3 (2:1:6) (2 theoretical credits, 1 practical/experimental credits).

Duration : 9 weeks (4 hours of theory + 2 hour of practice + 6 hours of self-study per week)

4. **Course intructors:**

1/ Ma. Nguyen Thi Tinh Au

2/ Dr.Tran Thi Kim Anh

3/ MSc. Nguyen Ha Trang

5. **Course requirements :**

Preresiquisite courses : None

Previous course : None

Parallel course : None

6. **Course Description :**

This module is designed to prepare the definitions and base knowledge of Enviromental Technology for the students. It also helps learners to have approach method and methodology when they learn more deeply in this field. Therefore, they will have the orientation of studying ability and career development in the future. This module helps learners to orient careers, softskills and foundation of professional ethics.

7. **Course Goals**

| Goals | Goal descriptions <i>(Course's contributions to student)</i> | Programme Expected learning outcome (ELOs) |
|--------------|---|---|
| G1 | Basic knowledge about university, Faculty and Environmental Technology. | ELO1 |
| G2 | Demonstrate the ability to work as a team leader and as a team member | ELO9 |
| G3 | Engineer's role in environment - protecting mission due to the interests of the mass. | ELO12 |

8. Course learning outcomes (CLOs)

| CLOs | | CLOs description (After accomplishing this course, students are able to:) | Programme ELOs |
|------|------|---|-------------------|
| G1 | CLO1 | Describe the developing history, diagram of organization, educational philosophy and orientation of Faculty of Chemical and Food Technology and Clubs in HCMC University of Technology and Education. | ELO1 |
| | CLO2 | Present the output standard of faculty, professional ethics, orientation of specialized training in faculty. | |
| G2 | CLO3 | Co-ordinate to accomplish the mission with all members in group. | ELO9 |
| G3 | CLO4 | Propagandize the awareness of protecting environment in public. | ELO12 |

9. Learning materials

- Textbook :

[1] P. Aarne Vesilind, Susan M. Morgan, Lauren G. Heine (2011), Introduction to Environmental Engineering - SI Version 3rd Edition

[2] Handbook of students in HCMC University of Technology and Education.

- References

[3] Nguyen Thang Vu et al., Environmental careers, Nhat nghe tinh Vocational bookcase, Kim Dong Publishing House.

10. Student assessment

- Grade scale: 10

- Assessment plan:

| Assessment | Contents | Schedule of progress | Assesment methods | Expected Learning Outcome | Grading weight (%) |
|---------------|--|----------------------|--------------------|---------------------------|--------------------|
| Subtest | | | | | 20 |
| Exercise #1 | Learners research the faculty's output, subject's contents and analyze the relationship of them. | Week 2 | Group exercise | CLO1 CLO2 | 10 |
| Assignments | | | | | 40 |
| Assignment #1 | Learners carry out a fact-finding survey in one place and report the actual state. | Week 5 | The essay (Report) | CLO2 CLO3 CLO4 | 20 |
| | Report the results | Week 9 | Presentation | | 20 |
| Final exam | | | | | 50 |
| | Design and carry out products using materials from domestic waste. | Week 13 | Products | CLO2 CLO3 CLO4 | |

11. Detailed contents of course:

| Week | Contents | Expected Learning Course outcome |
|------|--|----------------------------------|
| 1 | Chapter 1: Introduction about HCMUTE (4/2/12) | |
| | A/ Teaching content in classroom (4) 1.1. Introduction about UTE: Forming history, vision, mission, training orientation, size, faculties, offices, framework of organization,...) 1.2. On behalf of youth and student union, clubs in Chemical and food technology, to exchange and share one's experience about the living and studying environment in UTE Summary of teaching methodology: - Speech - Group discussion - Using online lesson Method of Examination and Assessment: Exercise (1 minute): thinking about your university | CLO1 CLO2 |
| | B/ The contents of home self-study (12) Exercise 1 - Learn more about UTE - Materials : www.hcmute.edu.vn | |
| 2 | Chapter 2: Careers and related knowledge (4/1/10) | |
| | A/ Teaching content in classroom (4) 2.1. Introduction about catalogue of careers trained in College and University in training education. 2.2. Introduction about Output standard of Chemical and Food Technology. 2.3. Introduction about narrow speciality and Faculty's deep-training orientation. Summary of teaching methodology: - Speech - Group discussion - Using online lesson Method of Examination and Assessment - Questions and responses | CLO1 CLO4 |
| | B/ The contents of home self-study (10) Exercise 1 - Learn about the environment in Viet Nam and over the world (cont) - Materials: Web of environment and electrical newspaper. | |
| 3-5 | Chapter 3: Overview of Environment (12/0/24) | |
| | A/ Teaching content in classroom (12) 3.1. Environmental Challenges in the 21st century 3.2. What does engineer do ? | CLO1 |

| | | |
|-----|--|---------------------------------------|
| | <p>3.3. Ways to realize the environmental problem</p> <p>3.4. Deal with these problems and analyze figures</p> <p>Summary of teaching methodology:</p> <ul style="list-style-type: none"> - Slide presentation (Powerpoint) - Speech - Group discussion <p>Activities in class:</p> <p>Group discussion</p> <ul style="list-style-type: none"> - How has the environment changed for 50 years ? - Challenges in management and dealing with the environmental problem in the 21st century | |
| | <p>B/ The contents of home self-study: (24)</p> <p>Assignment #1</p> | |
| 6-8 | <p>Chapter 4: Introduction about environmental topics (12/4/32)</p> | |
| | <p>A/ Teaching content in classroom (12)</p> <p>4.1. Water Resources, processing sewage and distilled water.</p> <p>4.2. Atmosphere and processing air pollution</p> <p>4.3. Soil pollution and solid waste</p> <p>4.4. Environmental Management</p> <p>Summary of teaching methodology:</p> <ul style="list-style-type: none"> - Slide presentation (Powerpoint) - Speech - Group discussion | <p>CLO1</p> <p>CLO2</p> |
| | <p>B/ The contents of home self-study: (32)</p> <p>Assignment #1</p> | |
| 9 | <p>Chapter 5: SOFTSKILL (4/0/8)</p> | |
| | <p>A/ Teaching content in classroom (4)</p> <p>5.1. Core skills in group working</p> <p>5.2. Make a plan</p> <p>5.3. Method to learn in university</p> <p>5.4. Skills to find out documents, comprehend ones, update information.</p> <p>5.5. Skills of organizing and joining meeting, skills of designing presentation by using powerpoint and Skills to make a speech, skills of negotiation.</p> <p>5.6. Skills to learn English in communication and in technical area by oneself.</p> <p>Summary of teaching methodology:</p> <ul style="list-style-type: none"> - Speech - Group discussion | <p>CLO3</p> |
| | <p>B/ The contents of home self-study (8)</p> <p>Exercise at the end-of-semester</p> | |

12. Scientific ethics:

- Learners are not allowed to copy other person's essay or report)
- In report or essay, citations must be clear about origin, name of writers and the published time.

13. Date of first approval: August 1st, 2012

14. Approval by:

Dean

Head of Department

Compiler

Prof. Nguyen Van Suc

MSc Nguyen Thi Minh Nguyet

Nguyen Thi Tinh Au

15. The process of updating course outline

| | |
|---|--|
| <p>1st time August 25th, 2015</p> <ul style="list-style-type: none">- Update content and structure of the programme adjusted in:- Content and assessment method | <p>Instructor:</p> <p>Nguyen Ha Trang Head of Department:</p> <p>Dr Tran Thi Kim Anh</p> |
|---|--|