

Course Syllabus

1. Course Title: Graduation thesis

2. Course Code: GRTH4107210

3. Credit Units: 10 (0/10/20) (0 units of theory/ 10 unit of practice/ 20 units of self-study) Duration: 15 weeks

4. Course Instructors

1/ Assoc. Prof. Nguyễn Văn Súc

2/ Other members in EET department and visiting lecturers ...

5. Course Requirements

Students have accumulated at least 134 credits and finished all courses' projects

6. Course Description

This course gives students an opportunity to participate in a major design experience in environmental engineering. Using knowledge and skills acquired in earlier courses of the EET programme, the students are required to design a real-world environmental project under the realistic challenges of environment – economic – society such as designing waste treatment system (water supply, wastewater, solid waste, air pollution), study a new and modern method applied in waste treatment or in environmental management. Depending on the project's complexity, students will work individually or in small teams on a problem statement.

7. Course Goals

| Goals | Goal Description | Programme ELOs |
|-------|---|-------------------|
| G1 | Select suitable professional knowledge and interpreting the experimental results for studying and designing the pollution treatment/management. | ELO3, ELO5 |
| G2 | Evaluate the importance of approaching all decisions as well as design solutions carefully, taking into account ethical and future career considerations. | ELO7, ELO8, ELO12 |
| G3 | Analysis and design results are well presented in the thesis report and drawings, and in oral defense. | ELO10 |

| | | |
|-----------|---|--------------|
| G4 | Judge the impact of design solutions and choose appropriate methods under the realistic challenges of environment – economic – society. | ELO15, ELO16 |
|-----------|---|--------------|

8. Course Learning Outcomes (CLOs)

| CLOs | | Description (After accomplishing this course, students are able to:) | Programme ELOs |
|-------------|-------------|---|-----------------------|
| G1 | CLO1 | Design and execute a meaningful research project that demonstrates spatial thinking and uses the professional knowledge. | ELO3 |
| | CLO2 | Interpreting the results from experiments or calculation for waste treatment system design. | ELO5 |
| G2 | CLO3 | Evaluate the importance design solutions carefully | ELO7, |
| | CLO4 | Taking into account ethical and future career considerations. | ELO8 |
| | CLO5 | Practice the role and responsibility of an environmental engineer toward the society | ELO12 |
| G3 | CLO6 | Results of analysis and design processes are well reported in the thesis and drawings. | ELO10 |
| | CLO7 | The project is successfully presented in oral under an evaluation committee. | ELO10 |
| G4 | CLO8 | Judge the impact of engineering solutions and choose appropriate models for the project. | ELO15 |
| | CLO9 | Analyze the capacity of applying this project into real-world under the constraints of the economic – environment – society for sustainability. | ELO16 |

9. Learning Resources

- Vietnam and foreign design codes
- Textbooks and references necessary for doing the capstone project

10. Student Assessment

- Grading scale: **10**
- The instructor assesses weekly works
- A reviewer assesses the final report and drawings

- A committee (at least 3 members) assesses the oral presentation.
- Rubrics are used for all assessments
- Score is the average of the scores given by the instructor, the reviewer, and the committee's members.

11. Course Schedule / Content

In consultation with the course instructor, each student will develop his or her own work schedule and content for the course. This schedule and content will be assessed by the reviewers to make sure it is suitable for a graduation thesis at the beginning of the semester and revised as needed as the work progresses.

The common schedule is allowing time for the project work to be completed in addition to the thesis preparation, revision and defense.

The basic timetable is described as below: – All work completed by the end of the semester. Registration in next semester not required, however your degree will be dated in the next semester.

| Date | Task |
|-----------------------|--|
| Week 1 | Prepare work schedule, meet with advisor |
| Week 2 | Assessed by reviewers, adjusted following the comments |
| Week 3 - 10 | Conducting the research |
| Week 11 - 12 | Prepare the thesis draft |
| Week 13 -14 | Revise the thesis |
| Week 15 | Submit the thesis |
| - | Defense |
| After defense 2 weeks | Final revision |

12. Learning Ethics

Students will not submit the thesis for oral defense in the following cases

- Not completing design requirements
- Plagiarism

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

14. Approved by

Dean

Head of Department

Instructor

Prof. Nguyễn Văn Súc

MSc Nguyen Thi Minh Nguyet

Prof. Nguyễn Văn Súc

15. Date and Up-to-date content

| | |
|---|--------------------|
| <p>1st time: <Date: > - <content></p> | <p>Instructor:</p> |
|---|--------------------|

Head of Department: