

HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY AND EDUCATION **Programme:** Biomedical Engineering **Programme Level:** Undergraduate

FACULTY OF ELECTRICAL AND ELECTRONICS ENGINEERING

Syllabus

- 1. Course name: Capstone Project
- 2. Course code: PREL311065
- 3. Credits: 1 credits (1:0:2) (1 lecture periods, 0 lab period, 2 self-study periods per week)

4. Instructors

- a. Chief lecturer: Assoc. Prof. Dr. Nguyen Thanh Hai
- b. Co-lecturers: Lecturer list-

5. Course Requirements:

Prerequisite course(s): None

Previous course(s): Digital Electronic project; Biomedical Instrumentation Lab

6. Course Description

After completing this subject, students will be able to form ideas for implementing graduation thesis. In addition, this subject aims to help students implement these ideas to work out the graduation thesis, to work in a team with members and defense it in a thesis committee. Students must submit reports with chapters, in which there are calculation, design, choice of components and then send to lecturers.

7. Learning Outcomes (CLOs)

| CLOs | Descriptions On successful completion of this course students will be able to: | ELO(s) /PI(s) | Compe- tency |
|------|---|------------------|-----------------|
| CLO1 | Ability to identify, formulate and solve problems related to this course and aim to thesis | ELO1/PI1.2 | М |
| COL2 | Ability to apply understanding from literature reviews to provide solutions for the project in the future | ELO4/PI4.2 | М |
| CLO3 | Ability to organize to work in a group and contribute for the project success | ELO5/PI5.2 | М |
| CLO4 | Ability to expain and communicate problems related to project to audiances. | ELO6/PI6.1 | М |
| CLO5 | Ability to analylize problems for applying in the biomedical electronic field. | ELO7/PI7.2 | М |
| CLO6 | Ability to evaluate results to change problems or systems in the biomedical electronic field. | ELO8/PI8.2 | R |

8. Content outline

- How to search materials and write a summary of a material
- How to prepare a proposal and represent a thesis report
- Part 1: Graduation thesis structure
- Part 2: Overview and literature review
- Part 3: Calculation, design and construction of the system
- Part 4: Results, representation, discussion and conclusions
- Part 5: preparing powerpoint slides, viddio clips, thesis report

9. Teaching Methods

- Powerpoint presentation
- Teamwork

10. Assessment(s)

- Grading scale: 10
- Assessment plan:

| No. | Content | CLOs | Compe- tency | Assessment methods | Assessment tools | Weighting % |
|----------------------|---|--|-----------------|-----------------------|---------------------|-------------|
| Summative assessment | | | | | | 100 |
| 1 | Project report, powerpoint slides, representation, contributing in group. | CLO1, CLO2, CLO3, CLO4, CLO5 | | Written/Oral | Rubric | 100 |

11. Learning Materials:

- Textbook(s):

[1] Powerpoint slides of PGS.TS. Nguyễn Thanh Hải

[2] Graduation theses and Capstone projects at the HCMUTE library.

12. General Information:

Academic Integrity

All students in this class are subject to HCMUTE's Academic Integrity Policy (<u>http://sao.hcmute.edu.vn/</u>) and should acquaint themselves with its content and requirements, including a strict prohibition against plagiarism. Any violations will be reported to the Faculty of Electrical and Electronic Engineering Dean's office.

Flexibility Notice

Any information in this syllabus (other than grading and absence policies) may be subject to change with reasonable advanced notice. Students need to regularly update the information of their registered class.

Intellectual Property

All contents of these lectures, including written materials distributed to the class, are under copyright protection from the HCMUTE's Intellectual Property Regulations. Notes based on these materials may not be sold or commercialized without the express permission of the instructor.

13. Approval Date: *<dd/mm/yyyy>*

14. Endorsement:

| Dean | Head of Department | Chief Lecturer |
|-------------------------------------|--------------------------------------|-----------------------|
| Assoc. Prof. Dr. Nguyen Minh Tam | Assoc. Prof. Dr. Nguyen Thanh Hai | <full name=""></full> |

15. Revision History:

| 1 st Revision: < <i>dd/mm/yyyy</i> > | Lecturer: |
|---|-----------------------------------|
| | Head of Department: |
| | Assoc. Prof. Dr. Nguyen Thanh Hai |

| 2 nd Revision: < <i>dd/mm/yyyy</i> > | Lecturer: |
|---|---------------------|
| | Head of Department: |