EECE 502: Final Year Project II

Catalog description:
A continuation of EECE 501. Students are asked to deliver a product that has passed through the design, analysis, testing and evaluation stages. The course also requires the production of a professional report that includes a description of the design process, implementation and testing, verification and validation and a critical appraisal of the project. Oral presentation and a poster are also within the project deliverables. Prerequisite: EECE 501

Credit hours: 3 credits

Required or elective: Required for senior CCE and ECE students

Prerequisites:
By course: EECE 501 Final Year Project I

Textbook(s) and/or required materials
FYP guidelines as published on the FYP website.

Course Objectives
1. Allow students to demonstrate a wide range of the skills learned at the
2. FEA during their course of study by asking them to deliver a product that has passed through the design, analysis, testing, and evaluation stages.
3. Encourage multidisciplinary research through the integration of material learned in a number of courses.
4. Allow students to develop problem solving, analysis, synthesis and evaluation skills.
5. Encourage teamwork.
6. Improve students’ communication skills through the production of two
7. Improve students’ design skills and encourage them to follow a methodology for designing experiments and evaluating data.
8. professional reports (one at the end of the Fall and another at the end of the Spring Term) and a professional poster (only at the end of the Spring Term) and to give two presentations on their work, one at the end of the Fall and another at the end of the Spring Term

Course Topics
Various relevant topics (e.g., project management, design of experiments, statistical data evaluation) are given, in addition to presentations by Industry experts.
Course Outcomes
1. Understand and describe meaningfully the problem objectives and its practical importance
2. Participate in a design-to-product cycle
3. Apply mathematical and engineering fundamentals to creatively find solutions for open-ended real world problems
4. Use modern design tools and technologies to produce novel designs
5. Apply a multi-disciplinary approach to solving problems
6. Work efficiently in a team
7. Design, implement and, test a substantial artifact (or several smaller artifacts) that might be software, hardware, communications, or other model of an information system
8. Critically evaluate a design against its objectives, specifications, or other related solutions
9. Effectively design experiments and then interpret and evaluate the data
10. Demonstrate presentation skills in the form of oral presentations and poster
11. Communicate in writing through the production of project reports

Class/laboratory schedule
Students in an FYP group are expected to conduct weekly meetings with their project supervisor to assess the accomplished work and plan future developments. They are also required to attend lectures given on related topics by the FYP Coordinator and by invited speakers.

Resources of the course
Library, Labs, Internet.

Computer usage
Depends on the project.

Evaluation methods
Evaluation is done by means of detailed Rubrics that span the four categories below:
1- Supervisor Evaluation (20%)
2- Presentation (30%)
3- Report (30%)
4- Poster (10%)
5- Progress reports, log book, and minute taking (10%)

Professional component
The percentages of engineering topics, general education and mathematics and basic sciences depend on each particular project

Person(s) who prepared this description and date of preparation
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Date of last revision
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