

CAPSTONE PROJECT



INTRODUCTION

THE CAPSTONE DESIGN COURSE ARE SENIOR-LEVEL PROJECT DESIGN COURSES THAT REQUIRE STUDENTS TO USE ALL THEIR ELECTRICAL ENGINEERING KNOWLEDGE TO SOLVE A REAL-WORLD ENGINEERING PROBLEM OR DEVELOP A VIABLE PRODUCT WITH APPROPRIATE CONSIDERATION TO THE ENVIRONMENT AND PUBLIC HEALTH.

COURSE OUTCOME

AT THE END OF THE COURSE, STUDENTS ARE ABLE TO:

1. PRIORITISE A SET OF DESIGN SOLUTION OF AN ENGINEERING DESIGN TO A DEFINED END STATE
2. EXECUTE THE DESIGN PROCESS AS A SUSTAINABLE ENGINEERING SOLUTION
3. IMPLEMENT THE PLANNED DESIGN IN A TEAM WORKING ENVIRONMENT
4. DEMONSTRATE EFFECTIVE COMMUNICATION OF ENGINEERING KNOWLEDGE IN THE FORM OF WRITTEN DOCUMENTATION AND ORAL PRESENTATIONS
5. MANAGE RESOURCES WITHIN TIME AND BUDGET CONSTRAINTS
6. EXECUTE THE STANDARD TESTING PROCEDURE TO TEST PRODUCT RELIABILITY, PERFORMANCE IN HEALTH, SAFETY AND ENVIRONMENT ASPECTS, WITH RESPECT TO PRODUCT STANDARDS AND REGULATIONS

COURSE INFO

- FINAL YEAR SEMESTER 1 AND 2 WITH TOTAL 5 CREDITS
- PRE-REQUISITE: COMPLETED 75 CREDIT HOURS
- 3 MEMBERS PER GROUP & 1 SUPERVISOR
- EACH GROUP MUST REPORT TO A LECTURER SUPERVISING THE PROJECT
- BUDGET OF RM 500 PER GROUP

PROJECT TITLES

- VISIT THE WEBSITE FOR A LIST OF PROJECT & RESPECTIVE SUPERVISOR
(http://eeteachinglab.um.edu.my/?modul=capstone_project)
- FORM YOUR OWN GROUP, AND CHOOSE YOUR TITLE AND SUBMIT THE 'SELECTION FORM' (DOWNLOAD FROM WEBSITE) BY 25TH MAY.

ASSESSMENT

SEMESTER 1

- PROPOSAL SUBMISSION
- PROGRESS REPORT SUBMISSION
- POSTER PRESENTATION

SEMESTER 2

- FINAL REPORT SUBMISSION
- ORAL PRESENTATION
- PRODUCT DEMONSTRATION

Assessment by: Supervisor, Moderator 1 & 2, Group members (peer assessment)

SCHEDULE

Semester 1: 14 weeks	Semester 2: 14 weeks
<p>7 weeks of lectures (3 hours/week)</p> <p><u>Lecture Topics:</u></p> <ul style="list-style-type: none">• Introduction to capstone• Project management (2 weeks)• Sustainability• Life cost analysis• Safety and health• Standards <p>Week 8-14</p> <ul style="list-style-type: none">• Weekly meetings• Submit project proposal• Poster presentation (last week)	<p>Week 1-13</p> <ul style="list-style-type: none">• Weekly meetings <p>Week 14</p> <ul style="list-style-type: none">• Final Project report• Final presentation & Demonstration