FINAL YEAR PROJECT

MANUAL

FOR
STUDENT

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1.0 INTRODUCTION

All final year students from UTAR FEGT are required to undertake a unit named *Project* which will last for two (2) long trimesters.

As this unit is a design and/or research based, students are required to perform research, and/or development work on the selected field or topic, especially on real-world problems. Such a study would motivate students to produce practical solution(s) and provide them with the opportunity to use tools and techniques for engineering problem solving. Learning from experience is the best learning process, especially for applied science or engineering related studies and this unit uses such approaches. On the other hand, the students will also acquire skills on project management.

Working under the guidance of supervisor(s) would help to shape the direction of the student’s near future career development. It would also provide students with better team work and inculcate with development of professional relationship which would benefits them in future employment.

This guideline is prepared for students and supervisors for enabling them to execute their respective roles and duties in an effective manner, hence benefiting both parties. With that, the success of this unit can then be realised.

The project flow and timeline for this unit are summarized in Section 10. Actions will be taken for the student who is unable to fulfil the criteria stated in that section, e.g. being barred from oral presentation.

2.0 OBJECTIVE AND PURPOSE

This unit aims to develop a framework which will enhance the skill of student in the process of applying knowledge, expanding thoughts, solving problems independently and presenting findings through minimum guidance and supervision.
3.0 SCOPE OF WORK

The project can be in the form of laboratory experiment, computer programming, modelling, simulation and analysis and/or product design. The area and scope of the project should be narrowed so that it is feasible and could be completed within the allocated time frame. The project work must also exhibits element of originality, which indicates the maturity level for a final year bachelor degree programme project.

4.0 RESPONSIBILITIES AND ROLES

A team comprising of FYP Committee, Supervisor(s) and Panel of Examiners is formed to manage this subject. It is the responsibility of each party to execute their role in ensuring that a project could be completed and delivered by students within the project time frame.

4.1 FYP Committee

The FYP Committee is chaired by the Head of Department. The Coordinator and committee members are appointed by the Head of Department.

4.1.1 FYP Coordinator

The main responsibilities of the Coordinator are as follow:

a) To identify the students who have registered for the subject.
b) To distribute the guidelines to students and supervisors.
c) To plan and manage the project process.
d) To collect project title suggestions from lecturers and students.
e) To submit all project proposal to the Committee Members for approval and assigning supervisor(s).
f) To release the list of approved projects for students to select.
g) To collect the list of project titles selected by students.
h) To forward the list of project titles selected by students to Committee Members for approval.
i) To release Committee Members’ decision on project title and supervisor(s).
j) To brief the students and supervisor on the project requirements based on the guidelines.
k) To co-ordinate committee meetings to appoint Panel of Examiners.
l) To arrange presentation slots for students.
m) To collect required reports from students and forward it to the examiner for evaluation.
n) To compile students’ assessment marks.
o) To retain all related documents and forms for at least one (1) year after graduation for auditing purposes.

4.1.2 FYP Committee Members

a) To approve the proposed titles which are relevant to the student’s field of study only.
b) To assign project supervisor(s).
c) To assign project titles to students.
d) To appoint Panel of Examiners.
e) To endorse final project grades.

4.2 Supervisor

Each student will be supervised by one main supervisor, who is knowledgeable in the relevant field of expertise. Their responsibilities are summarized as follow:

a) To monitor the schedule and progress of the student(s).
b) To assist and guide student(s) on the project and the preparation of logs/final report according to the approved format.
c) To assess student’s performance.
d) To deliver evaluation according to the Final Year Project Score Sheet.
e) To nominate a co-supervisor if necessary and notify the Coordinator.
f) To endorse the requests on purchasing consumables and equipment, technical support, nomination of advisor(s) and other related resources for the project. Purchase Request Form shall be used.
g) To nominate Examiner(s) to FYP Committee for the supervised project.
h) To compile and retain all evaluation of the supervised project for at least one (1) year after graduation for auditing purposes.
4.3 Co-supervisor

Co-supervisor may be nominated by the Supervisor to assist student in very specialized areas. The Co-supervisor can be internal or external (outside of the university). The external Co-supervisor must be officially appointed and entitled for payment (subject to terms and condition). The Co-supervisor’s responsibilities are summarized as follow:

a) To guide student in solving specific task within his expertise as and when necessary within the project time frame.

b) To represent on behalf of the Supervisor when requested by the Supervisor, especially during presentation and evaluation.

4.4 Panel of Examiners

The FYP Committee appoints the Panel of Examiners. The role of the Examiners is to function as a project evaluator who is responsible to evaluate the project presentation and report according to Final Year Project Score Sheet.

4.5 Students

Students are required to demonstrate their ability to integrate fundamental knowledge in developing techniques, methods and analyses in the process of completing the project. They are also required to take initiative such as proposing title for the project on their own, by using Final Year Project Title Proposal Form (FYP-01) besides working independently through exercising self-discipline, self-management and job coordination. The responsibilities of students are as follow:

a) To either select a project topic on their own or the one suggested by Supervisor.

b) To produce the required reports according to the specified format.

c) To schedule meetings with Supervisor.

d) To adhere to the meeting schedule with Supervisor for the purpose of updating progress and seeking advice on project matters.

e) To record progress activities of their project in a weekly log and compile it properly for record keeping. Final Year Project Weekly Report Log (FYP-04) shall be used.

f) To submit weekly log to Supervisor to be endorsed during each meeting.

g) To be responsible in finding alternative solution for problems encountered such as computer crashes and instrument failure.

h) To submit all required logs and reports on time with no exception.
5.0 PROJECT PROCESS FLOW

This section will provide the detailed explanation of each process.

5.1 Selection and Submission of Title and Project Synopsis

a) Lecturers will submit project proposals according to their interests and expertise to the Coordinator.

b) Students are also encouraged to propose their own project proposal based on their interest and experience.

c) All proposals from lecturers must be submitted to the FYP Coordinator before the start of new trimester.

d) Proposal from student shall be submitted using Final Year Project title Proposal Form after endorsement from the proposed Supervisor.

5.2 Approval on Project Title, Synopsis and Assignment of Supervisor

a) The Coordinator will forward the list of proposals to the FYP Committee for approval.

b) The project proposals will be reviewed by the FYP Committee to ensure the viability of the project.

c) The proposing candidate will be called by the FYP Committee should any clarification is required.

d) Upon approval of the project, the FYP Committee will endorse a Supervisor for the project.

e) The Coordinator will release the list of approved projects to the students.

5.3 Selection of Project Titles

a) Students who do not submit a project proposal or have their proposal been rejected by the FYP Committee will need to select a maximum of three (3) titles from a given list in any order of preference and re-submit to the Coordinator using Final Year Project Title Selection Form (FYP-02).

b) The Coordinator will forward the submitted selection form to the FYP Committee who will then assign an approved project to the student.

5.4 Allocation of Approved Project Titles

a) Student will be informed by the Coordinator on the award of the proposed/selected project.
5.5 Approval for Purchase and Usage of Resources and Services

a) Supervisor will endorse for the purchase of consumables and equipment, request for technical support, visit and other resources related to the project if necessary. The Purchase Request Form should be used.

5.6 Submission of Reports

a) Reports are to be submitted to Supervisor before the deadline.

b) Supervisor will evaluate and forward the report to other personnel for evaluation if necessary.

5.7 Submission of Weekly Log

a) The logbook should be submitted to Supervisor for endorsement on a weekly basis. Endorsed logbook should be kept by students.

b) Final Year Project Weekly Report Log (FYP-04) is recommended to be used.

5.8 Submission of Hard-bound Project Dissertation

a) Hard-bound project dissertation will be the final amended copy of the final report with a hard cover.

b) The report should be bounded according to the format stated.

5.9 Grading of Project

a) Assessment of the project will be done over two (2) long trimesters and the final marks will be awarded at the end of the second trimester.

b) The breakdown of marks and evaluation will be as described in Section 7.1 - Evaluation Criteria.

c) If the hard-bound project dissertation is not submitted the final marks of the particular student will be withheld.

5.10 Dissertation Submission

a) Students must submit two (2) bounded hard cover copies of their dissertation to the Supervisor.

b) One copy will be kept by the Moderator / Department office and one will be kept by the Supervisor.

c) Students must also submit one (1) copy of CD/DVD that contains a single file (in PDF format) of their dissertation to the Department office. The file size must
not be more than 100 MB. For details, please refer to the final submission procedure in FEGT website.

5.11 Reports

5.11.1 Weekly Log

The weekly logbook shall record the progress of the week. The Final Year Project Weekly Report Log (FYP-04) should be used.

5.11.2 Progress Report

The following parts are suggested to be included in the submitted progress reports.

- Title Page
- Table of Content
- List of Figures
- List of Tables
- List of Abbreviation
- Chapter 1 Introduction
  - Background of Study
  - Problem Statement
  - Objectives
  - Outline of Report
- Chapter 2 Literature Review and Theory
- Chapter 3 Methodology / Project Work
- Chapter 4 Results (Only required in second progress report)
- References
- Appendix

5.11.3 Final Dissertation

Final Dissertation should be the finalized version of Final Report in a hard-cover binding.
6.0  ORAL PRESENTATION

Evaluation and procedures for oral presentations shall be in accordance with the process flow stated in this section.

a) There will be two (2) sessions of oral presentation, which is to be held after the submission of reports at the end of each trimester.

b) The presentation on the first trimester is a short seminar on the progress of the project while the presentation on the second trimester should be on the full achievements of the project.

c) The coverage of the presentation should be as follow:
   a. Project background and overview
   b. Methodology and approach used
   c. Results obtained
   d. Discussion on the results
   e. Demonstration of prototype if any

7.0  EVALUATION

Evaluation of project work and submission done by student will be based on the criteria stated in this section. The Panel of Examiners evaluating each report is reflected in Table 1.

7.1  Evaluation Criteria

7.1.1  Project Reports

a) There will be three (3) reports required as follow:
   a. Progress Report – to be submitted in each trimester.
   b. Final Report (Soft Cover) – to be submitted towards the end of second trimester before the final presentation.
   c. Final Dissertation (Hard Cover) – to be submitted after final presentation, upon completion of final correction/amendments.

7.1.2  Oral Presentation

a) There will be two (2) oral presentation sessions.

b) The presentation sessions will be held after submission of the progress report and final report respectively.
7.1.3 General Effort

a) There will be two (2) evaluations to assess the effort of student on the project, which is stated as follows:

   a. Weekly Log – to be submitted weekly (starting from 4th week of first trimester) to Supervisor for endorsement and compiled for submission to the Coordinator at the end of the respective trimester.

   b. Presentation Materials.

7.2 Summary of Evaluation

Table 1 - Breakdown of Grading for Evaluation Assessment

<table>
<thead>
<tr>
<th>Assessment Category</th>
<th>Assessment Breakdown</th>
<th>Examiner</th>
<th>First Trimester</th>
<th>Second Trimester</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>Project Report</td>
<td>Progress Report</td>
<td>Supervisor</td>
<td>5</td>
<td>5</td>
<td>60</td>
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<tr>
<td></td>
<td>Final Report (Soft Bound)</td>
<td>Supervisor</td>
<td>N/A</td>
<td>25</td>
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<td></td>
<td></td>
<td>Moderator</td>
<td>N/A</td>
<td>25</td>
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<tr>
<td>Oral Presentation</td>
<td>Oral Presentation</td>
<td>Panel*</td>
<td>5</td>
<td>10</td>
<td>25</td>
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<td></td>
<td></td>
<td>Moderator</td>
<td>N/A</td>
<td>10</td>
<td></td>
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<tr>
<td>General Effort</td>
<td>Weekly Logbook</td>
<td>Supervisor</td>
<td>N/A</td>
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<td></td>
<td>Presentation Materials</td>
<td>Supervisor</td>
<td>5</td>
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<td>Moderator</td>
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<tr>
<td>TOTAL</td>
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*Note: Panel can be the Supervisor or Moderator.

8.0 CLAIMS

Students are entitled for a final year project claim up to RM 500 (subject to approval) for the whole of the project which covers the following items only.

a) Consumable and equipment

b) Testing/technical support

c) Consultation or other support

d) Travel/visit for data requisition (on the most economical mode of travel)

e) Procurement of data
All claims must be submitted using form of requisition to the Supervisor with original proof of payments. For details, please refer to the request and reimbursement procedure in FEGT website.

9.0 BARRING OF STUDENT

Action will be taken accordingly should the student is unable to meet the criteria stated in this section.

9.1 Barring From Continuing the Project

a) Student will be barred from continuing the project on the following trimester should any of the items below is not completely performed.
   a. Submitting first progress report (two (2) weeks before the end of first long trimester).
   b. Performing first oral presentation.
   c. Submitting weekly log for first trimester.

9.2 Barring From Final Presentation

a) Student will be barred from performing the final presentation should any of the items below is not completely performed.
   a. Submit second progress report (by Week 8 of second long trimester).
   b. Submit final report.
   b) A grade F will be given to student who does not perform the final presentation.

9.3 Restrained From Getting the Final Mark

a) The final mark of any student who does not complete the following items will be withheld.
   a. Submitting Final Dissertation (hard-cover) after the final presentation.
   b. Submitting weekly log for both trimesters.
10.0 PROJECT MILESTONE

Gantt Chart for First Long Trimester

<table>
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<tr>
<th>Details/Week</th>
<th>1</th>
<th>2</th>
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<td>Project Proposal/Selection</td>
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<td>Project Work</td>
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<td>Progress Report Submission</td>
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Gantt Chart for Second Long Trimester

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<tr>
<td>Project Work (continue)</td>
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<td>Progress Report Submission</td>
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<td>Final Report Submission</td>
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11.0 COPYRIGHT

The university shall be the owner of all findings, designs, patents and other intellectual property rights of the projects.

12.0 PLAGIARISM

Plagiarism is the act of obtaining or attempting to obtain credit for any academic works by representing the work of another as one’s own without the necessary and appropriate acknowledgment. More specifically, plagiarism is:

a) The act of incorporating the ideas, words of sentences, paragraphs, or parts thereof without appropriate acknowledgment and representing the product as one’s own work; and
b) The act of representing another’s intellectual work such as musical composition, computer programme, photographs, painting, drawing, sculpture, or research or the like as one’s own.

Source: www.sonoma.edu/uaffairspolicies/cheatingpolicy.htm

Students may discuss with the Supervisor should they are in doubt of the nature of plagiarism. If any student is caught committing plagiarism stern action will be taken against the student.