Final Year Project Guidelines for Students

TPR3321 / TPT3101

FACULTY OF COMPUTING AND INFORMATICS
MULTIMEDIA UNIVERSITY

TABLE OF CONTENTS

FINAL YEAR PROJECT GUIDELINES FOR STUDENTS

TPR3321 / TPT3101

1. INTRODUCTION TO THE FINAL YEAR PROJECT (FYP)

As a part of the requirement to be awarded a Bachelor's degree from the Faculty of Computing and Informatics, you are required to undertake, complete and pass a project-type course (TPR3321/ TPT3101) in your final year of study. This final year project (FYP), usually executed over two trimesters (a 28-week period), will be a substantial and important part of your undergraduate study. It will be the most time consuming activity and a significant piece of independent work that you need to take on.

Computer science and information technology are theoretical and empirical, hands-on disciplines, and there are many skills that simply cannot be taught in the classroom. They can only be learned through practical experience. Working on a large project like the FYP will give you the opportunity to be exposed to many such skills, for example:

- Interacting with users.

  With most classroom projects you are given a problem and told to solve it. In the real world, however, problem statements are not given out in a finished form. You must develop the problem statement through meetings and discussions with potential users of your software.

- Developing specification and design documents.

  In software engineering classes you learned formal methods for representing specification and design documents. However, code developed in class is usually too small to demonstrate their real benefits. That is not the case with the final-year project. It involves the development of a large, complex software package that requires the effective use of software development tools. Without these formal design and implementation methods, the scale of the project will quickly overwhelm you.

- Developing prototypes.

  Building prototypes is a common task in software development. Users are often unable to express their needs without seeing a working model. In class there is rarely enough time to develop both a prototype and a fully functional program. However, for the final year project you will build a working prototype of your proposed software.

- Improving your writing and oral presentation skills.

  Two fundamentally important parts of the project are the written documents you produce and the oral presentations you give. At the end of Trimester 1 you will deliver an Interim Report and

demonstrate your prototype. At the end of Trimester 2 you will produce a Final Report and give a presentation of the finished system.

As you can see, there is much more to a final year project than simply "writing lots of code" or "writing lots of text". Instead, it is a chance to put into practice all the concepts that, until now, have only been studied formally. By the end of the project you will have developed a set of practical skills that will serve you well throughout your professional career. That is why the hours put into this course are considered hours well spent.

- Working effectively as part of a team.

  For this project you can work individually or in a team of 2 students. If you work in a group project, each member will be having his/her own contributions to the project and will be assessed individually based on his/her own effort. In the "real world" software is rarely, if ever, developed alone, so learning to be an effective part of a software development team is an important learning experience.

The rest of this document describes the FYP process, grading and assessment, guidelines for FYP reports writing and preparation as well as general notes related to FYP.

2. THE FYP PROCESS

Figure 1 depicts the FYP process. It is based on FYP project that starts in Trimester 1 and ends in Trimester 2. If your FYP starts in non-regular cycle, you need to adapt this process and timeline to your FYP.

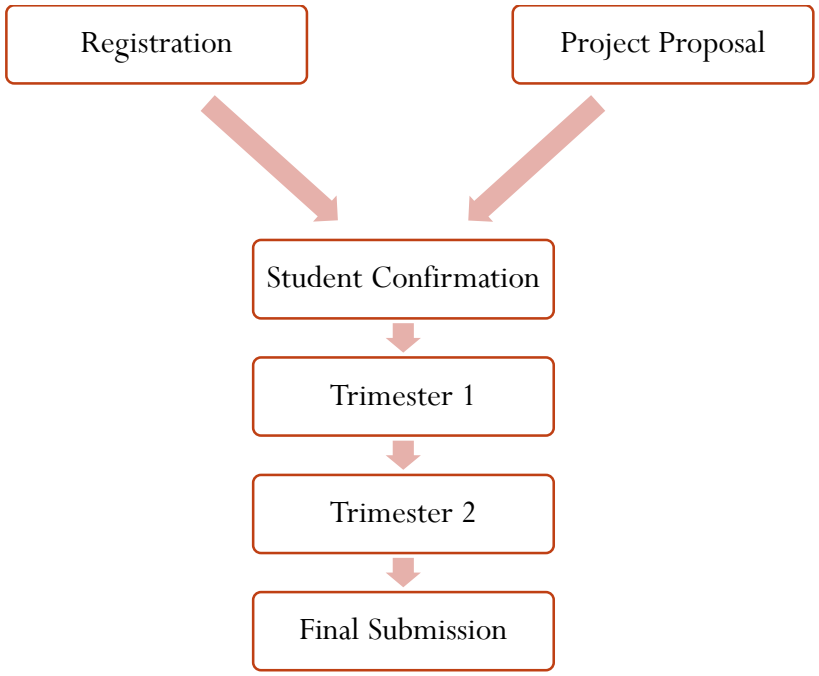

Figure 1: FYP process flow

<table>
<tr><th>Process</th><th>Description</th></tr>
<tr><td>Registration</td><td>Register at the FYP website (http://10.106.52.221/fyp2) so that the faculty can manage your FYP activities. The faculty will take note of your intention to do your project and lecturers would be able to confirm you for their projects.

Note: Students having problem with registration should inform the FYP Coordinator or Faculty Manager.</td></tr>
<tr><td>Project Proposal</td><td>FYP project titles will be uploaded by lecturers at the FYP website starting form Trimester 2 of Gamma Year.

Find a project that you are interested in and meet the lecturer to find out more about the requirements of the project. If the lecturer accepts you for the project, he/she will confirm you at the FYP website.

You can also propose your own project (see Appendix A). You must find a lecturer to supervise the project. The lecturer must upload the project details and the project must be reviewed and accepted by the FYP committee.</td></tr>
<tr><td>Student Confirmation</td><td>Lecturers will confirm the students for their projects at the FYP website. You can check the confirmation at the FYP website from the Confirmed Projects List.

By week 1, students without projects will be assigned to lecturers. You can discuss with the lecturer to work on existing titles or to formulate a suitable project that you can do. The assigned lecturer then may upload a new project for assigned students to do (if necessary).</td></tr>
<tr><td>Activities in Trimester 1</td><td>Trimester 1 of your FYP is concerned with developing the problem specification and design. Important dates for trimester 1 activities are as follows:
<table>
<tr><th>Date</th><th>Activity</th></tr>
<tr><td>Week 1</td><td>• Register for your FYP subject in CAMSys.
• Finalize your FYP title in the first week; consult your supervisor for issues related to computing resources.</td></tr>
<tr><td>Week 2</td><td>• Add/drop FYP in CAMSys.</td></tr>
<tr><td>Week 2 - 11</td><td>• Weekly or bi-weekly meetings with supervisor
○ A short, written description of the project is expected [by Week 5].
○ Develop a complete and precise problem statement followed by the formal design of a software system (for application-based project) or main theoretical concept of domain being investigated (for research-based project) that solves this problem. The proposed solution should be technically sound, reasonable and achievable.
○ Prepare an implementation plan that will guide its activities during Trimester 2.
○ Build a working prototype that demonstrates the functionality of your proposed software. Expectations for the demonstrations can be referred to in the documentation about FYP1 rubrics.</td></tr>
</table>
</td></tr>
</table>

		• A meeting log must be completed by each student for each meeting. The meeting logs must be included in the report.
	Week 12	• Book your presentation time slot with your supervisor • Submission of Interim Report ○ This includes literature review, interviews, and market surveys, as well as the completed specifications and design. A thorough description of the format of this report is contained in Chapter 4.
	Week 13-14	• Presentation and demonstration of the prototype to the supervisor and project moderator. • Discuss with your supervisor on the improvements to be made in the project work, and the report. This includes amendments to address originality checking results from Turnitin application (The Similarity Index for the report must be less than or equal to 20%. If this is not achievable, you must provide the justification and your supervisor must agree to it).
Activities in Trimester 2	Trimester 2 is concerned with system implementation as well as the business modelling or research contribution of the project. Important dates for trimester 2 activities are as follows:	
	Date	**Activity**
	Week 1	• Register again for your FYP subject in CAMSys. • Finalize your FYP title in the first week; consult your supervisor for issues related to computing resources.
	Week 2	• Add/drop FYP in CAMSys.
	Week 2 - 11	• Weekly or bi-weekly meetings with supervisor ○ Construct a finished, working system that meets all specifications based on the specification and design work done during the previous trimester. • A meeting log must be completed by each student for each meeting. The meeting logs must be included in the report.
	Week 12	• Booking of time slot with supervisor and moderator for poster presentation. • Submission of Final Report ○ This report describes the results achieved, outlines the steps you went through during implementation, and discusses how the final results conform to what was originally proposed. The contents of the Final Report are given in Chapter 4.
	Week 13-14	• Prepare a poster to explain your project and demonstrate the finished software to both the supervisor and the moderator. • Discuss with your supervisor on the improvements to be made in the project work, and the report. This includes amendments to address originality checking results from

		Turnitin application (The Similarity Index for the report must be less than or equal to 20%. If this is not achievable, you must provide the justification and your supervisor must agree to it).
Final Submission	After the presentation in Week 13-14 of Trimester 2, the supervisor and moderator will assess your Final Report and provide feedback on the amendments and corrections to be done, including amendments to address plagiarism checking results from Turnitin application. You must revise the Final Report as required before submitting the hard cover, digital copy, and Turnitin report (from your supervisor) to FCI General Office.	

3. GRADING AND ASSESSMENT

You will receive a single grade for the two-trimester, final year project course. The assessment will be based on your effort, reports and presentations for both trimesters. It is important that you demonstrate good project management, application of technical knowledge and skills, can explain your work well in the presentations, and document your work clearly in the reports in order to obtain good marks in the final assessments.

Your work in Trimester 1 contributes 30% of the final grade and your work in Trimester 2 contributes 70% of the final grade. The following tables describe the components of this grade:

Final Year Project 1 (30%)

Categories	Percentage	Effective Mark
Written Report	50	15
Oral Presentation	30	9
General Effort	20	6

Final Year Project 2 (70%)

Categories	Percentage	Effective Mark
Written Report	40	28
Project Implementation	30	21
Poster Presentation	10	7
General Effort	20	14

For more details, you can refer to the FYP Rubrics and Mark Sheets documentions.

4. THE FYP REPORTS

The FYP report preparation guidelines can be found in the FYP website documentation section.

APPENDIX A: FYP STUDENT PROJECT PROPOSAL

FYP Student Project Proposal FAQ

You need to read this FAQ if you wish to propose your own project title.

If I do not wish to propose an FYP proposal, can I choose an FYP proposal proposed by the supervisors?
Yes, from the online FYP system.

What are the steps to propose a FYP proposal?
The student will identify a project supervisor and the supervisor needs to agree to supervise the student. The student then fills in the **FYP Student Proposal Form** and the proposal is submitted to the online FYP system by the supervisor. The FYP proposal will go through the FYP committee for approval. Refer to the flowchart in Appendix A1.

What is the purpose of accepting student FYP proposal?
To encourage our students to explore their interest and creativity.

What are the requirements for a student to make an FYP proposal?

- The proposed supervisor is willing to accept the student.
- The proposal meets the faculty standards.

What happens after the proposal is submitted online by the supervisor?
After the student has submitted the project proposal through the supervisor, the FYP committee will go through the proposal for approval. Once the proposal is approved, the student can be confirmed with the title by the supervisor. Refer to the flowchart in Appendix A1.

Can a lecturer accept more than 1 student proposed title?
Yes.

Can students proposed their titles in groups?
Yes, but there is a maximum 2 students per group.

How do I look for project titles?
The student may obtain ideas via the following:
• Research

- Ideas from books and other references
- Discussion with lecturers

What is the format of the proposal?
Please refer to the **FYP Student Proposal Form** in Appendix A2.

Can I choose several supervisors for my project?
No, you can have only 1 supervisor. You might have co-supervisors.

Can I propose without a supervisor?
No.

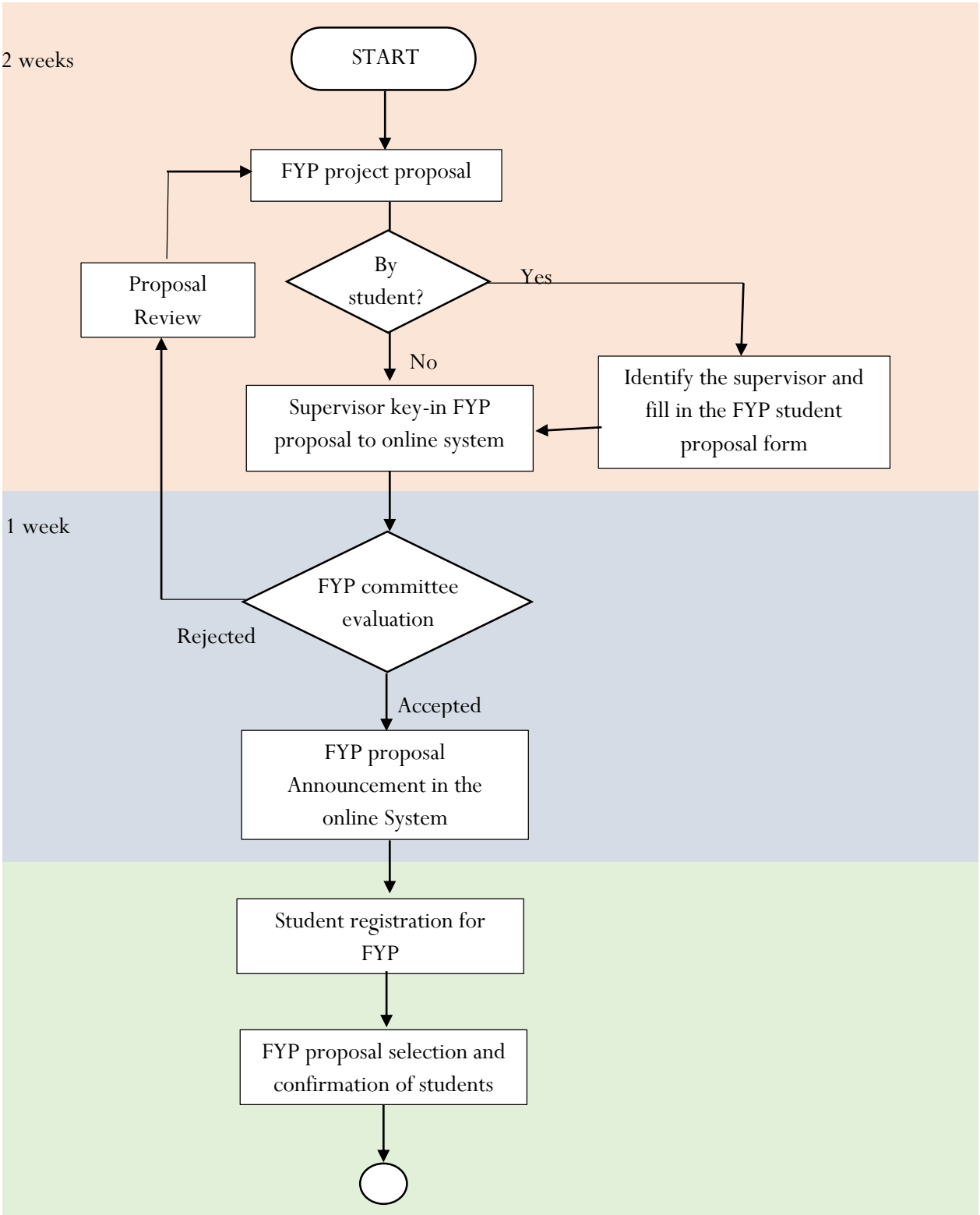

Figure 7: The Process Flow of FYP proposal

MULTIMEDIA UNIVERSITY

FINAL YEAR PROJECT – STUDENT PROPOSAL FORM

Students who wish to propose their own FYP project need to complete this form and submit it to the proposed supervisor. The deadline for this is the fifth week of the academic trimester before the leaving for industrial training

PART A: PROJECT INFORMATION

Project Title :

Project Objective :

Project Scope :

If more than 1 student, please fill in the following section:

Student 1 Subtitle :

Student 1 Work Distribution :

Student 2 Subtitle :

Student 2 Work Distribution :

PART B: STUDENT INFORMATION

Student 1:

Name: _____

Student ID: _____

Program/Specialization:

_____

Date: _____ **Signature:**

_____

Student 2: **(If any)**

Name: _____

student ID: _____

Program/Specialization:

_____

Date: _____ **Signature:**

_____

PART C: SUPERVISOR INFORMATION

Name: _____

Date: _____ **Signature:**

_____

FINAL YEAR PROJECT PROPOSAL FORM (online form to be filled by supervisor)

Project Title :

Supervisor :

Co-Supervisor(if any):

Project Type : ◉ Lecturer Proposal ○ Student Proposal

Project Type : ◉ Research-based ○ Application-based

Project Category : ◉ Software Engineering
○ Information System
○ Visual Computing
○ System and Network

Specialization : ☑ Software Engineering
☑ Information System
☐ Games Development

Project Objective :

Project Scope : (Brief and Concise)

No of Students :

1
2

If more than 1 student, please fill in the following section:

Student 1 Subtitle:

Student 1 Work Distribution :

Student 2 Subtitle:

Student 2 Work Distribution :

Industrial Collaboration: ○ Yes ◉ No

Company Name :

Contact Person :

Contact No :