

7BUIS019C.3– Research Methods and Professional Practice 2024-25	
Module leader	Prof Prasad Wimalaratne
Unit	Coursework
Weighting	<b>75%</b> for Part 1 : Research Proposal (60%) (Individual) Quizzes (5% each x 3) <b>25%</b> for Part 2 – Poster Presentation on a Research Paper( Group Activity)
Learning Outcomes Covered in this Assignment:	LO1. critically evaluate and review the research and/or industry issues of an area within a project domain; LO2. use effectively appropriate methods of gathering and analyzing information. LO3. formulate a proposal that presents and defends research and/or business objectives, and the methods, schedule, and resources required to meet these; LO4. present and communicate effectively an objective defence of research and/or business arguments. LO5. demonstrate an awareness and understanding of legal, social, ethical and professional issues related to the area of study/work.
Handed Out:	2 <sup>nd</sup> July 2025
Due Date	<b>Individual Project Proposal and Poster – 17<sup>th</sup> August 2025 1pm Sri Lankan Time . Three Quizzes will be held online via Blackboard</b>
Expected deliverables.	The project proposal in electronic format Poster presentation in electronic format
Method of Submission:	Online via Blackboard
Type of Feedback and Due Date:	Written feedback and marks – 15 working days after the submission deadline.

# Coursework Description

## Part 2 – Individual Project Proposal

### Overview

Each student should identify a project in Software Engineering or a related area as a potential masters' individual project. You should draft a project outline for this coursework. Using the project outline, you are required to write an individual project proposal and submit it through Blackboard. **Students are required to create the proposal document using Latex ( see <https://www.overleaf.com/>)**

### **Project Proposal Specification (LO 1, LO 2, LO 3, LO 4, LO 5)**

The project proposal should cover the following areas:

Requirement	Guideline
Background	Very clear and concise project background Leads to identifying a gap in knowledge/information Should act as the basis for the rest of the research proposal
Brief literature review	This should comprise of a systematic literature survey using multiple data sources and multiple search criteria. The literature review should provide a critical review of high-quality publications directly related to the research problem in question. This should be a substantial section of the complete project proposal.
Research Problem	Cite and justify your research problem with the latest literature Properly word your research problem/problem statement.
Aims and Objectives of the project	Properly word your research aim. Usually, multiple aims / ambiguous statements are not recommended. The aim should not be very long. A specific and realistic set of objectives/ research questions or hypotheses. They should have a systematic linkage with each other.
Research Methodology	Critical Component. The student should clearly specify what he/she will answer the research questions or achieve the objectives by following appropriate data collection and analysis procedures under a given research methodology.
Professional / Legal / Ethical and Social implications	The student should critically asses of following aspects, in relation to the research problem. <ul style="list-style-type: none"><li>o IEEE code of conduct.</li><li>o Data Protection / Computer Misuse / Copyright acts and etc.</li><li>o Computer Ethics and Social betterment.</li></ul>
Data Management Plan(Optional)	Data protection and privacy issues need to be considered. A clear and justified plan with the identification of required resources and technologies(Only if Applicable)
Prototype Specification	The student should provide information about the prototype/ working model/simulation that will be produced as a deliverable of the project
Project Gantt Chart	Should identify the required tasks in order to achieve the project aim and objectives Realistic time frames
Conclusion	A clear and concise conclusion

The students are expected to demonstrate excellent understanding of the aspects such as literature review skills, academic writing skills, understanding of SLEP issues etc. taught in the course

**Minimum word count: 750 words**  
**Maximum word count: 2000 words**

Please note that the project proposal **should not have plagiarized content**. A similarity count of 20% or less is allowed for accidental similarity.

Submission: [BackBoard](#)

Deadline: **17<sup>th</sup> August 2025 1pm Sri Lankan Time** (\*\*No extensions are possible)

## Coursework Marking scheme

### Part 2 – Project Proposal

The project proposal will be marked based on the following criteria:

Component/ Allocation	0 -29	30–39	40–49	50–59	60–69	70 – 100
<b>Project Background</b> 10%	Title not given. No project background. Problem not identified	Title available. Unclear project background and problem identification	Fairly clear project background and problem identification	Clear project background and problem statement	Clear and Mark detailed project background and problem statement	Very clear and concise project background and justified problem statement
<b>Literature Review</b> 15%	No literature survey. No literature review. No reference list.	Only a survey. Little or no evidence of a systematic approach, incomplete review. No plagiarism. Reference list available.	Incomplete and not systematic, but adequate to identify part of the literature	Evidence of reviewing, possibly incomplete but using appropriate approaches	Critical reviewing.	Outstanding evidence of systematic critical review.
<b>Project Aims and Objectives</b> 15%	No project aims and objectives	Unclear project aims and objectives	Fairly clear project aims and objectives	Clear project aims and objectives	Clear and justified project aims and objectives	Very clear and justified project aims and objectives
<b>Background theory</b> 10%	No Background Theory	A theory has been presented	Incomplete justification on background theory	Fairly Clear Justification On background theory	Clear Justification on Background theory	Clear and Strong Justification on Background Theory
<b>Research Methodology</b> 15%	Not identified	Unclear methodology	Fairly clear research methodology	Clear research methodology	Clear and justified research methodology	Very clear methodology, fully justified and comparable to state-of-the-art
<b>Professional / Legal / Ethical and Social implications</b> 10%	Not identified	Ad-hog assessment	Below average attempt	Pointed out but not well elaborated	Well elaborated	Extensive elaboration and linked well with the project's context.
<b>Prototype Features</b> 10%	none	inadequate	some	adequate	reasonably good	Substantial and challenging
<b>Gantt Chart</b> 10%	not attempted	attempted but rather poor	attempted	reasonably detailed	clear and detailed	thorough and precise
<b>Use of Latex features</b> 5%	Not used (0)				Used with adequately (3)	Used features of Latex well (5)

### Part 3 – Group Poster Presentation

#### Overview

Each group of students should discuss and submit 4-5 good journal/conference papers (Primary sources with from credible publishers) in Software Engineering or a related area in a Zip file via the LMS. **The Zip file should also contain a document containing (Group ID, Student Names, UOW IDs & IIT ID numbers of members).** The **deadline for submission of zip file is on 13<sup>th</sup> July 2025 1pm.** **One Submission per group by the group leader is sufficient.** The course lecturer will select one paper (one per group) from the given list of papers. All members should demonstrate a good understanding of all aspects of the selected paper during poster presentation. All groups are expected to have good collaboration & contributions throughout the process of the poster activity. Both a copy of the poster prepared by the group and the Individual Research Project Proposal has to be uploaded by each student on the given deadline. Presentations by each group will be scheduled as per announcements on the LMS after the submission deadline.

#### **Group Poster Presentation Specification (LO 1, LO 2, LO 3, LO 4)**

The poster presentation shall include the following elements. However each group shall structure as appropriate;

1. Title
2. Author(s) & Affiliation(s)
3. Introduction
4. Materials & Methods
5. Results
6. Conclusions
7. Acknowledgments (options)
8. References (use short in-text citations)

**800 words max. 42" x 32"** Keep enough empty space to separate objects on the poster. (example 40% graphics, 35% empty space, 25% text). Power Point or any other appropriate software may be used to create the poster.

**Deadline 17<sup>th</sup> August 2025, 1pm Sri Lankan Time** (\*\*No extensions are possible)

### Sample Layout

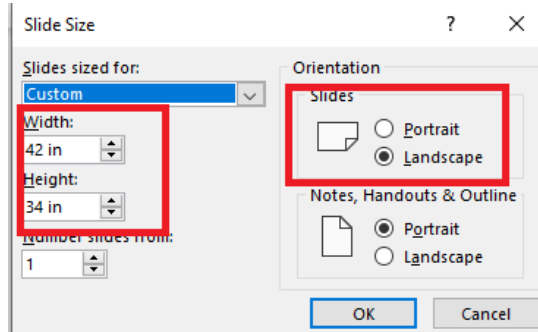
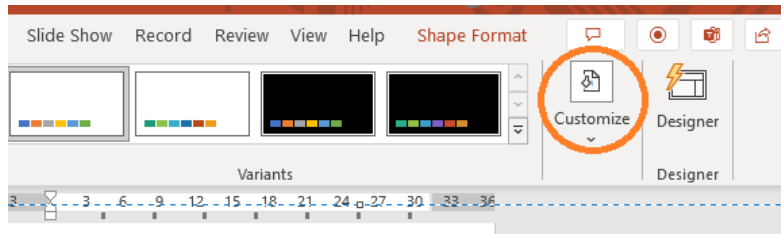
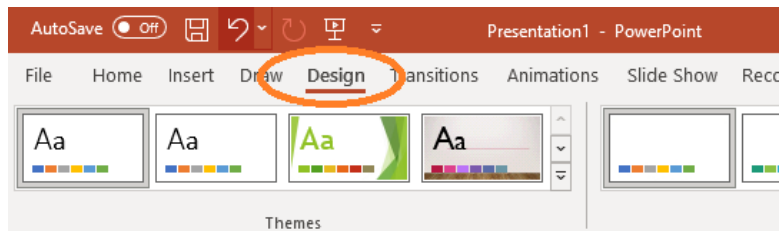
## Poster Template (Landscape)

[illegible]

**The Poster and the presentation by Individual member will be marked based on the following criteria:**

Component/ Allocation	0 -29	30–39	40–49	50–59	60–69	70 – 100
<b>Poster Presentation</b>  <b>50%</b>	Poor presentation of the poster	Poorly designed poster with limited information.	Acceptable structure and sufficient information included in the poster. All the appropriate elements are included	Satisfactorily structured, informative poster. All the appropriate elements are included and presented	Well structured, informative poster. All the appropriate elements are included and presented well	Excellent poster with appropriate structure and information. Clear presentation. All the appropriate elements are presented in excellent manner
<b>Individual Presentation</b>  <b>50%</b>	Lacks understanding of the research paper selected. Was unable to answer the questions.	Demonstrates limited understanding of the Research Paper selected. Was able to answer the questions partially.	Demonstrates some level of understanding of the Research Paper selected. Provided a reasonable answers to the questions	Demonstrates satisfactory understanding of the Research Paper selected. Provided satisfactory answers to the questions	Demonstrates good understanding of the Research Paper selected. Answered the questions well	Demonstrates excellent understanding of the Research Paper selected. Answered the question confidently.

## Appendix MS Power Point



1<sup>st</sup> July 2025