



## Mehran university of Engineering and Technology Jamshoro Department of Software Engineering

### Thesis/Project Learning Outcomes

CLO	Description and domain
1	Explore and analyze constraints and requirements of software project (C3 & C4).
2	Investigate scientific literature related to the software project (C4).
3	Design and develop software project using engineering standards and latest tools and technologies (C5 & P5).
4	Plan and proceed work division using modular approach to complete the critical milestones of software project. (C5)
5	Improve project efficiency to ensure sustainability by utilizing the resources effectively via environment friendly practices (P4).
6	Evaluate software project deliverables to meet timeline and project constraints. (C6).
7	Excel in communication skills through presentations, written document (thesis) and/or publications/posters. (P5).

### Marks Distribution of Thesis/Project

<b>Initial Defense (7<sup>th</sup> Semester Exam)</b>	<b>50% (100 Marks)</b>
<ul style="list-style-type: none"> <li>• Comprehensive Knowledge about Project – 36%</li> <li>• Presentation skills – 16%</li> <li>• Design &amp; Methodology – 12%</li> <li>• Design Tools/Technologies – 12%</li> <li>• Individual/Team efforts – 12%</li> <li>• Professional Ethics – 12%</li> </ul>	Internal – 25% External – 25% Supervisor – 25% Chairman – 25%
<b>Final Defense</b>	<b>50% (100 Marks)</b>
<ul style="list-style-type: none"> <li>• Presentation Skills –20%</li> <li>• Sustainability – 28%</li> <li>• Design Tools/Technologies – 16%</li> <li>• Professional Ethics – 12%</li> <li>• Individual/Team efforts – 12%</li> <li>• Life-long learning (internship/CPD Points/Community work/Society Membership) – 12%</li> <li>•</li> </ul>	Internal – 25% External – 25% Supervisor – 25% Chairman – 25%
<b>Total</b>	<b>100%(200 Marks)</b>

## FYP Proposal Defense Evaluation Form and Rubrics

<b>Criteria</b>	<b>1 - Unacceptable</b>	<b>2 – Acceptable</b>	<b>3 - Adequate</b>	<b>4 - Proficient</b>	<b>PLOs</b>
<b>R1</b> Project Knowledge	Student has no knowledge of problem and solution.	Partial understanding of the overall project problem statement, goals and complexity with an approximate plan and minor design deliverables to proceed further.	Student has competent knowledge and can reply to the queries but without justification.	Full understanding of the overall project problem statement, goals and complexity with a clear workout plan, design deliverables and feasibility report to proceed further.	4 (CLO-4)
<b>R2</b> Organization and Content of Presentation	Student is clueless about the content of presentation	Student has not employed graphs, figures, charts to explain salient points	Student has clearly organized presentation content and used few figures and graphs	All key points covered in presentation and student has presented with clear and logical flow.	10 (CLO-6, 7)
<b>R3</b> Societal Impact	Student is clueless about societal impact	Student knows but is unable to justify societal impact of project	Student gives reasonable justification of societal impact of project	Student provides sufficient details about how this project will impact the Society.	6 (CLO-4)
<b>R4</b> Literature Review	Literature review is absent or in vague form	Literature review contains reasonable description of project background but more research references are required	The review gives good background knowledge of the project but it is not written in scientific writing standard	Literature review is excellently written according to the scientific writing standards and covers maximum of research material	2 (CLO-1)
<b>R5</b> Methodology and design	The approach that will be taken to solve the problem is not discussed	The methods, design, algorithm and other aspects are discussed but not convincingly. Much is left to reader's imagination	The methods, design, algorithm and other aspects are discussed sufficiently.	The methods, design, algorithms and other aspects are sufficiently discussed with details and figures. Work division between group members is defined	3 (CLO-3)
<b>R6</b> Tools and Technologies	Student has not used existing engineering tools	Student has marginally exploited the capabilities of the tools used to create project	Student has adequately used modern tools to complete project but lacks other alternatives that could have been used	Student has employed tools to their capacity and is well informed of modern tool usage.	5 (CLO-3)
<b>R7 Green</b>	Student is clueless	Student is unable to	Student justifies efficient	Student provides clear environmental	7

Computing	about the environmental impact of the project	justify the environmental impact of the project and its sustainability goals	resource utilization and its impact on environment	and sustainability goals and how they are achieved.	(CLO-4,5)
<b>R8</b> Ethics	The project contents are plagiarized	Student has cited others work but it is not related to the project	Student has cited existing work but it is not consistent.	Properly acknowledged and ethically used existing work/material	8 (CLO-4,6)
<b>R9</b> Work Division & Management	Working division among group members is not shown	Work division is shown but more clarity is needed	Work division is clearly shown	Work division is shown and each member is equally given responsibilities	9, 11 (CLO-4,6)
<b>R10</b> Lifelong Learning	Student has poor preparation to engage in independent &lifelong learning	Student has poorly engaging in independent learning	Student is satisfactorily engaged in life-long learning in the broader context of technological change/managerial/community activities.	Student has shown keen interest in independently engaging in lifelong learning.	12 (CLO-7)

**Marks Distribution with respect to FYP Rubrics for each Evaluator**

**7<sup>th</sup> Semester (100 Marks)**

Chairman	External	Internal	Supervisor	Total
25	25	25	25	100

Rubrics	Marks	Unacceptable	Acceptable	Adequate	Proficient
R1 Project Knowledge	5	0	3	4	5
R2 Organization and Content of Presentation	4	0	2	3	4
R4 Literature Review	4	0	2	3	4
R5 Methodology and design	3	0	1	2	3
R6 Tools and Technologies	3	0	1	2	3
R8 Ethics	3	0	1	2	3
R9 Individual/Team efforts	3	0	1	2	3
<b>Total</b>	25				

**8<sup>th</sup> Semester (100 Marks)**

Chairman	External	Internal	Supervisor	Total
25	25	25	25	100

Rubrics	Marks	Unacceptable	Acceptable	Adequate	Proficient
R2 Organization and Content of Presentation	5	0	3	4	5
R3 Societal Impact	4	0	2	3	4
R6 Tools and Technologies	4	0	2	3	4
R7 Green Computing	3	0	1	2	3
R8 Ethics	3	0	1	2	3
R9 Individual/Team efforts	3	0	1	2	3
R10 life-long learning	3	0	1	2	3
<b>Total</b>	25				

## FYP 7<sup>TH</sup> SEMESTER DEFENCE EVALUATION FORM

Rubrics	Marks	Unacceptable	Acceptable	Adequate	Proficient
R1 Project Knowledge	5	0	3	4	5
R2 Organization and Content of Presentation	4	0	2	3	4
R4 Literature Review	4	0	2	3	4
R5 Methodology and design	3	0	1	2	3
R6 Tools and Technologies	3	0	1	2	3
R8 Ethics	3	0	1	2	3
R9 Individual/Team efforts	3	0	1	2	3

Project Title \_\_\_\_\_

Student Name \_\_\_\_\_ Roll Number \_\_\_\_\_

Rubrics	PLO	Evaluation				Marks	
		Unacceptable	Acceptable	Adequate	Proficient	Total	Obtained
<b>R1 Project Knowledge</b>	PLO 4: Investigation (CLO-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	
<b>R2 Organization and Content of Presentation</b>	PLO 10: Communication (CLO-6,7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	
<b>R4 Literature Review</b>	PLO 2: Problem Analysis (CLO-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	
<b>R5 Methodology and design</b>	PLO 3: Design/ Development of Solutions (CLO-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	
<b>R6 Tools and Technologies</b>	PLO 5: Modern Tool Usage (CLO-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	
<b>R8 Ethics</b>	PLO 8: Ethics (CLO-4,6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	
<b>R9 Individual/Team efforts</b>	PLO 9: Individual and Team Work PLO 11: Project Management (CLO-4,6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	
<b>Total Marks</b>						<b>25</b>	

Evaluator Name: \_\_\_\_\_ Signature with Date: \_\_\_\_\_

Comments \_\_\_\_\_

## FYP 8<sup>TH</sup> SEMESTER DEFENCE EVALUATION FORM

Rubrics	Marks	Unacceptable	Acceptable	Adequate	Proficient
R2 Organization and Content of Presentation	5	0	3	4	5
R3 Societal Impact	4	0	2	3	4
R6 Tools and Technologies	4	0	2	3	4
R7 Green Computing	3	0	1	2	3
R8 Ethics	3	0	1	2	3
R9 Individual/Team efforts	3	0	1	2	3
R10 life-long learning	3	0	1	2	3

Project Title \_\_\_\_\_

Student Name \_\_\_\_\_ Roll Number \_\_\_\_\_

Rubrics	PLO	Evaluation				Marks	
		Unacceptable	Acceptable	Adequate	Proficient	Total	Obtained
<b>R2 Organization and Content of Presentation</b>	PLO 10: Communication (CLO-6,7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	
<b>R3 Societal Impact</b>	PLO 6: The Engineer and Society (CLO-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	
<b>R6 Tools and Technologies</b>	PLO 3: Modern Tool Usage (CLO-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	
<b>R7 Green Computing</b>	PLO 7: Environment and Sustainability (CLO-4,5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	
<b>R8 Ethics</b>	PLO 8: Ethics (CLO-4,6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	
<b>R9 Individual/Team efforts</b>	PLO 9: Individual and Team Work (CLO-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	
<b>R10 life-long learning (internship/CPD Points/Community work/Society Membership)</b>	PLO 12: Lifelong Learning (CLO-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	
<b>Total Marks</b>						<b>25</b>	

Evaluator Name: \_\_\_\_\_ Signature with Date: \_\_\_\_\_

Comments

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