Republic of the Philippines
Pamantasan ng Cabuyao
(UNIVERSITY OF CABUYAO)
Planning, Research, and Extension Division
Research and Development Department
Katapatan Mutual Homes, Brgy. Banay-banay, City of Cabuyao, Laguna 4025

FINAL DEFENSE EVALUATION FORM FOR ENGINEERING PROGRAMS

Date of Defense	May 19, 2023	Time	8:00 – 9:30
Name of Panel Member	Dr. Corazon B. Rebong	Signature	
	Engr. Evelyn L. De Castro		
	Engr. Ericson A. Mandayo		
Researcher	Alviar, Mark Shandon S. Garlan, Peter Psalm U. Castillo, Wilmark A. Laodinio, Apple Sheryl C.		
Program	BS-CPE	Department	Computer Engineering

STUDENT OUTCOMES	PERFORMANCE INDICATOR	EVALUATION CRITERIA	BEGINNING (1)	DEVELOPING (2)	ACCEPTABLE (3)	EXEMPLARY (4)	SCORE	EQUIVALENT WEIGHT
5. Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.	e1. Investigate requirements and constraints to solve engineering problem	Identification of problems or design of project **10%**	Insufficient identification of problems, inadequately objectives.	Partial identification of problems; lack of specific does impair solution of design	Adequate identification of problem; any lack of specific does not impair solution or design	Clear and complete identification of design goals and objectives		
		Engineering Analysis	Most analysis is skipped or	Analysis performed are	Analysis performed are	Analysis performed are		

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		15%	does not contribute to creating and effective design Analysis are performed as a separate process after design choices are made Analysis are likely incorrect and are difficult to understand due to poor set up	done after the fact to prove that choices made were valid Analysis performed after discovering that trial and error is not working well Analysis are haphazard and do not follow a logical flow	needed for design effectiveness and aid meeting design parameters Analysis are performed to prevent trial and error when prototype is build Analysis are performed correctly and contain many elements of a quality engineering. analysis	used to enhance design effectiveness and choose design parameters Analysis performed save significant effort by preventing trial and error when prototype is built Analysis are performed correctly and follow steps for quality		
8. Understand and evaluate the sustainability and impact of professional	h2. Evaluate the effect of different engineering solution in a global,	Alternative solution	No evidence of alternative design	One alternative presented as the project solution	At least two alternatives presented	Three or more alternatives presented		

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engineering work in the solution of complex engineering problems in a global, economic, societal and environmental context.	economic, environmental and societal context	**7.5%**						
		Optimizing, testing and evaluation **12.5%**	No reason provided for the selected solution Project does not include evaluation of result	Reasoning for the solution based on opinion only Results evaluated but without ant focus	Reasoning for the solution is supported by facts Result are evaluated reflects the project's need	Solution selected by the use of comparative data Evaluation data are collected to support needs		
3. Design solutions for complex engineering problems and design systems, components, or processes to meet desired needs within realistic constraints	c3. Design a system to meet desired needs within realistic constraints	Meeting design requirements	Few design requirements are met Design areas: Physical features	Only basic requirements are met Design areas: Physical features Technical effect Safety	Design requirements are met Design areas: Physical features Technical effect Safety	All design requirements are met and exceeded Design areas: Physical features Technical effect		

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such as economic, environmental, social, political, ethical, health and safety, manufacturability, cultural, and sustainability, in accordance with standards		**15%**	Technical effect Safety Cost	Cost	Cost	Safety Cost		
7. Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.	g1. Prepare written documents according to technical specifications	Design documentation	Reports may have poor quality writing and mix jargon with engineering language Reports miss many important topics and are not easy to read	Report attempts appropriate language/format for the engineering field Reports are fairly informative and generally easy to read Information in reports organized into section with data	Report use mostly appropriate language/format for the engineering field Report are mostly informative and easy to read Information in reports is well organized. All	Reports use appropriate language/format for the engineering field Reports are informative and easy to read Information in reports is well organized so that		

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		7.5%	Information in report is not organized. Data or design features explanations very difficult to locate	or design features explanation present	data and design features can be found without difficulty	data or design features explanation are easy to found		
	g2. Deliver oral presentations to articulate concepts and ideas	Design Presentation **7.5%**	Demonstration may not work and derails the purpose of the presentation Little of the oral presentation was clear, and it was generally confusing	Demonstration is present but breaks up flow of presentation Some of the oral presentation was clear, but there was clear and added significant content	Demonstration enhances understanding during presentation Most of the oral presentation was clear and added significant contents	Demonstration is effectively incorporated into presentation All of the oral presentation was clear and added significant content		
6. Apply ethical principles and commit to professional ethics, and responsibilities and norms of engineering practice.	f1. Relate understanding of ethical concepts, professional code of ethics, and governing law of	Ethics **5%**	Evidence of plagiarism	The team did not quote all the source of information that they used	The team quoted nearby all the source of information that they used	Avoid plagiarism, does not use information without giving credit to the appropriate source		

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	professional practice							
10. Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice and solutions to complex engineering problems.	j1. Express insight on current issues affecting engineering practice	Contemporary issues **5%**	Fails to express issues affecting engineering practice	Describe one issue affecting engineering practice	Describe two issues affecting engineering practice	Describe three or more issues affecting engineering practice		
	j2. Apply engineering principles in consideration of current issues affecting engineering practice	Research **5%**	No evidence of use of outside information	One research source cited	Two research source cited	Three or more sources cited; evidence of variety		
12. Demonstrate knowledge and understanding of engineering	L1. Apply engineering and management principles to	Time Management	No evidence of planning, Missed significant	Plan was made but not followed; some goals accomplished;	Plans and procedures followed during project. Goals	Project plan, proceures, followed and documented.		

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management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.	accomplish a group activity as member or leader	**5%**	milestone or projects not completed	inconsistent use of time	accomplished; most milestone met; misses some deadlines	Identify plan and timeline; consistently met deadlines		
4. Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.	D2. Perform delegated task as part of a multidisciplinary team	Teamwork Dynamics **5%**	Student build cohesion in group through verbal and nonverbal behavior. He/She Takes an active role to encourage participation of all team members.	Student behavior brings sometimes cohesion in group. Sporadic jokes and pranks encourage participation of team members	Plans and procedures followed during the project. Goals accomplished; most milestone met; misses some deadlines	Student apathy negatively affects groups performance. Group cohesion is broken by non verbal behavior		
TOTAL		**100%**						
INTERPRETATION								
RECOMMENDATIONS								

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ORAL PRESENTATION (Individual Grade - 20%)	**SCORE** (Highest score is 5)					**RESEARCHERS' Individual Rating**		
						SN, GN MI	**SN, GN MI**	**SN, GN MI**
1. Ability to respond to questions and issues quickly and appropriately pertaining to the impact of the developed computing solution	1	2	3	4	5			
2. Ability to use English language fluently to explain the relevance and impact of the developed computing solution to the target beneficiaries	1	2	3	4	5			
3. Ability to show confidence on the role assigned during the project development and oral defense	1	2	3	4	5			
4. Ability demonstrate technical know-how in their research.	1	2	3	4	5			
5. Ability to show cooperation and teamwork during the oral presentation	1	2	3	4	5			
TOTAL								
RATING = (TOTAL SCORE / 25)								
RATING X .20								
TOTAL GRADE = MANUSCRIPT * 80% + INDIVIDUAL GRADE * 20%								

Interpretation:

(1.0-1.9) Does not meet expectations, FAILED
(2.0-2.9) Does not meet expectations but shows a little appreciation and learning of the activity, FAILED
(3.0-3.3) Meet expectations shows a little appreciation and learning of the activity, PASSED
(3.4-3.7) Meet expectations shows appreciation and learning of the activity, PASSED
(3.8-4) Exceeds expectations, PASSED