



Course Specification

— (Bachelor)

Course Title Graduation Project

Course Code: CEN 1498

Program: Bachelor in Computer Engineering

Department: Computer Engineering

College: Faculty of Computers and Information Technology

Institution: University of Tabuk

Version: 1.0

Last Revision Date: 27 July 2022



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A. General information about the course:

1. Course Identification

1. Credit hours: (3)

2. Course type

A. University College Department Track Others
B. Required Elective

3. Level/year at which this course is offered: 9 / 5

4. Course general Description:

This course aims to demonstrate a student's ability to design and develop solutions for computer engineering project

5. Pre-requirements for this course (if any):

Passing 130 CR

6. Co-requisites for this course (if any):

N/A

7. Course Main Objective(s):

1. Identify, formulate, and analyze engineering problems
2. Utilize and apply essential facts, concepts, principles, theories, and practices relating to solution of a specific complex computer engineering problems
3. Demonstrate understanding of computer engineering and project management principles and apply these to their own work
4. Design solution to specific problem in computer engineering (specify the problem requirements, analyze the problem, design the solution for the problem and create the models of the analysis and design)
5. Apply ethical principles and commit to professional ethics, responsibilities and norms of computer engineering practice.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	E-learning		
3	Hybrid		



No	Mode of Instruction	Contact Hours	Percentage
	<ul style="list-style-type: none"> Traditional classroom E-learning 		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	45
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		45

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Define a specialized domain related to computer engineering	K1, K4	Group discussions Research activities	<ul style="list-style-type: none"> Report Poster Oral Exams presentation
1.2	Outline the resources needed for problem solution and project development.	K2, K3		
1.3	Describe the testing steps and acceptance methods for problem solution and implementation .	K2, K5		
2.0	Skills			
2.1	Create different plans needed for the project to utilize and manage different resources	S1,S3	Group discussions Research activities	<ul style="list-style-type: none"> Report Poster Oral Exams presentation
2.2	Design and develop models using suitable tools for a specific computer-engineering problem	S2,S4		



Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
2.3	Analyze and compare different methods used in system modeling and select the suitable one to use.	S3		
3.0	Values, autonomy, and responsibility			
3.1	Illustrate ideas with team work Function effectively as an individual, and as a member or leader in diverse teams	V1,V2	Group discussions Research activities	<ul style="list-style-type: none"> • Report • Poster • Oral Exams • presentation
3.2				
...				

C. Course Content

No	List of Topics	Contact Hours
1.	Project Selection	3
2.	Feasibility study and Planning	3
3.	Literature Review and Background Study	3
4.	Requirements collection and Specification of the problem (Part 1): Requirement analysis and context diagram.	3
5.	Requirements collection and Specification of the problem (Part 2): Model and finalize the requirements.	3
6.	Create the analysis models of the problem (Part 1):	3
7.	Create the analysis models of the problem(Part 2):	3
8.	Create the Design models of the problem (Part 1):	3
9.	Create the Design models of the problem (Part 2):	3
10.	Implementation of the proposed solution and design (Part 1):	3
11.	Implementation of the proposed solution and design (Part 2):	3
12.	Testing the coding using standard methods	3
13.	Debugging and Finalization the implementation	3
14.	Documentation and presentation preparation and reviewing (Part 1): Prepare report	3
15.	Documentation and presentation preparation and reviewing (Part 2): Prepare presentation	3
Total		45





D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Report	1-15	20%
2.	Poster	14-15	10%
3	Oral Exams	14-15	40%
4	presentation	14-15	30%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	<ul style="list-style-type: none"> TBA
Supportive References	<ul style="list-style-type: none"> To be identified
Electronic Materials	<ul style="list-style-type: none"> To be identified
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom
Technology equipment (projector, smart board, software)	projector
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of Teaching	Faculty, Program Leaders, and Advisory Board	Both Direct and Indirect
	Students	Indirect
Effectiveness of Students Assessment	Faculty, Program Leaders, Advisory Board, and Independent Opinion	Both Direct and Indirect
Quality of Learning Resources	Faculty, Students, and Advisory Board	Indirect



Assessment Areas/Issues	Assessor	Assessment Methods
The Extent to which CLOs have been Achieved	Faculty, Program Leaders, Advisory Board, and Independent Opinion	Direct (as in section B) and Indirect/Surveys
	Students	Indirect
Other	-	-

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	

