



# Course Specification

## (Bachelor)

Course Title: **Graduation Project ( Phase-1)**

Course Code: **ITEC 425**

Program: **Bachelor in Information Technology (BIT)**

Department: **Computer Science**

College: **Engineering and Computer Science**

Institution: **Jazan University**

Version : **3**

Last Revision Date: **12 February 2024**



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## A. General information about the course:

### 1. Course Identification

1. Credit hours: (3 hours )

#### 2. Course type

- A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
- B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (11<sup>th</sup> Level/ 4<sup>th</sup> Year-2<sup>nd</sup> semester)

#### 4. Course general Description:

The Graduation Project is a capstone of an undergraduate curriculum. This course introduces students to basic skills and knowledge related to the graduation project that students will undertake during their study. It will provide basic understanding to the issues related to conducting graduation project in any topic in information Technology. In this course, students will work in a team setting. The students will investigate a specified problem. Explore appropriate solutions to the problem to meet the project's requirements, provide a cost analysis and build a prototype design. Furthermore, students are required to meet their supervisors weekly to discuss their design projects and plan for significant out-of-class time to work on their projects, coordinate with other group members and plan their written and oral presentations. At the end of the semester, the students' teams are required to submit written end of semester reports and participate in departmental oral presentations for examination.

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

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

#### 7. Course Main Objective(s):

Having successfully completed this project, the student will be able to:

- Acquire experience in investigating real world scenarios
- Develop an understanding of the problem, establish project objectives and criteria
- Analyze and define the system requirements
- Examine and perform a feasibility study
- Predict and define different technical solutions
- Learn how to make a timetable and follow up strictly its content
- Develop skills for analyzing and designing the project
- Acquire oral and written communication skills





### . Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning	0	0%
3	Hybrid <ul style="list-style-type: none"> <li>Traditional classroom</li> <li>E-learning</li> </ul>	0	0%
4	Distance learning	0	0%

### 3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	52
2.	Laboratory/Studio	-
3.	Field	-
4.	Tutorial	-
5.	Others (Mid, Pre and Final presentation)	8
Total		60

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

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods	ABET Student Outcomes (SOs)
1.0	Knowledge and understanding				
1.1	Analyze the complexity of a problem, identify, and define computing requirements appropriate to its solution	K1	Visual & Verbal [Meetings / Group Activity]	Midterm / Final / Pre-presentation discussion and reporting	SO-1,6
2.0	Skills				





Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods	ABET Student Outcomes (SOs)
2.1	Communicate effectively to define the statement of the problem, system requirements and writing project proposal	S3	Visual & Verbal[Meetings / Group Activity / Case Studies]	Midterm / Final / Pre-presentation discussion and reporting	SO-3,5
2.2	Design a computer-based system, process, component, or program to meet desired needs	S2	Visual & Verbal[Meetings / Group Activity]	Final / Pre-presentation discussion and reporting	SO-2,6
2.3	Develop communication, teamwork and improve skills in searching, gathering and categorization information, writing reports and preparing presentations.	S5	Visual & Verbal [Meetings / Group Activity/ Presentations]	Midterm / Final / Pre-presentation discussion and reporting	SO-3,5
3.0	Values, autonomy, and responsibility				
3.1	<b>Recognize</b> and commit to professional, ethical, legal, security and social issues and responsibilities throughout project work.	V1	Visual & Verbal [Meetings / Group Activity/ Presentations]	Midterm / Final / Pre-presentation discussion and reporting	SO-4

### C. Course Content

No	List of Topics	Contact Hours
1.	<b>Group formation</b> <b>Project idea submission and approval</b>	3
2.	<b>Project proposal writing</b> <b>Basics of project management (Tasks, plan, scope)</b>	3
3.	<b>INTRODUCTION</b> a. Project Overview Statement b. Project Goals And Objectives	4



	c. Project Scope d. Limitations And Constraints e. Assumptions	
4.	<b>PREVIOUS WORKS AND LITERATURE REVIEW</b>	8
5.	<b>FEASIBILITY STUDY</b> a. Purpose Of The Feasibility Study b. Justification For The Proposed System c. Economic Feasibility d. Technical Feasibility e. Desired System Functionality	4
6.	<b>PROJECT PLAN</b> a. Work Breakdown Structure b. Activity And Task List c. Gantt Charts	3
7.	<b>SRS – SYSTEM REQUIREMENTS SPECIFICATION</b> a. System Requirements Analysis b. Hardware Requirements Specification c. Software Requirements Specification d. Other Requirements Specifications	3
8.	<b>SYSTEM DESIGN</b> a. Application Architecture Design Use case Diagram; Activity Diagram; Sequence Diagrams; Database Entity Relationship Diagram ; Class Diagram; b. Database Design database Tables Structure	8
9.	<b>CONCLUSION AND FUTURE WORK</b>	3
10.	<b>Prepare final report</b>	3
11.	<b>Revision and Pre-Presentation</b>	2
12.	<b>Final Presentation and Final Theory Exam</b>	8
<b>Total</b>		<b>52</b>

#### D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Mid Presentation	9 <sup>th</sup> Week	20%
2.	Pre-Presentation	13 <sup>th</sup> Week	40%
3.	Final Presentation	15 <sup>th</sup> Week	40%

\*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	Jeffery A. Hoffer, Joey, F. George and Joseph, S. Valacich, " <b>Modern Systems Analysis and Design</b> ", Prentice Hall. 9 <sup>th</sup> Edition, 2021, ISBN 0131454617.
Supportive References	Kathy Schwabe: Information Technology Project Management, 9th Edition, 2019, Publisher: Cengage Learning
Electronic Materials	Depends on the project
Other Learning Materials	Depends on the project

### 2. Required Facilities and equipment

Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Meeting Rooms/Classroom/labs
<b>Technology equipment</b> (projector, smart board, software)	<ul style="list-style-type: none"> <li>• Projector</li> <li>• Smart Board</li> <li>• Blackboard (online learning platform)</li> </ul>
<b>Other equipment</b> (depending on the nature of the specialty)	Depends on the project

## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect
Effectiveness of Students assessment	Faculty	Direct
Quality of learning resources	CEO / Track Leaders	Direct
The extent to which CLOs have been achieved	HOD / QAU	Direct
Other		

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

**Assessment Methods**(Direct, Indirect)

## G. Specification Approval

COUNCIL /COMMITTEE	DEPARTMENT COUNCIL
REFERENCE NO.	MEETING NO. 1, AGENDA NO. 2
DATE	13/09/2022

