هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

اعتماد
NCAAA

2024

TP-153

Course Specification

(Bachelor)

Course Title:	Graduation Project 1
Course Code:	461CCN-3
Program:	Bachelor of Science in Computer Networks
Department:	Networks and Communications Engineering
College:	Computer Science and Information Systems
Institution:	Najran University
Version:	1.0
Last Revision Date:	Feb 2024

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours:					
3 (0, 6, 0) [Theory, Lab, Tutorial]					
2. Course type					
A.	☐University	☐College	☒ Department	☐Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: (Level 7 / Year 4)					
4. Course general Description:					

Graduation project-1 will guide students to conduct a critical background study on their chosen topic. It will assist them on requirements gathering including analysis and synthesizes of gathered data and will aid students to perform feasibility studies and functional and non-functional requirements to accumulate problems respective to their topic/environment. It will facilitate them to identify and apply appropriate methods/designs to overcome those problems, identify the scope of their project in the real world, and support students to critically evaluate the proposed design using suitable methods and techniques. Students will develop communication skills through presentation and be able to work individually as well as in a team. Students will be guided to maintain ethical issues, documentation formats, use of references and checking plagiarism. Finally, students will produce a formal report describing their findings, contributions, and future development/implementation.

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

352CCN-3

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

N/A

7. Course Main Objective(s):

By the end of this course the students are expected to be able to:

1. Analyze the problem and develop an initial solution.
2. Demonstrate his ability to work independently and as part of a team with colleagues and advisors utilizing good work dynamics.
3. Plan effectively for the various project lifecycle activities.
4. Conduct an effective literature survey and be able to contrast and critique related work.
5. Generate and articulate functional requirements and a preliminary design of the system/project.
6. The student will demonstrate a level of effectiveness expected by employers when he produces written documents, delivers oral presentations, and develops, prepares, and interprets visual information.
7. Produce an academic report.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	90	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity		Contact Hours
1.	**Lectures**		
2.	**Laboratory/Studio**	[6 contact hours ´ 15 weeks]	90
3.	**Field**		
4.	**Tutorial**		
5.	**Others (specify)**		
Total			90

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

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Classify various computer network-related problems and project live cycle activities such as selecting, planning, analysis, design, implementation, testing, deployment, and maintenance.	K1, K2	Class lectures, working with the team, reading about the topic	Presentations, Reports
1.2				
2.0	**Skills**			
2.1	Conduct (Survey) an effective background study and be able to contrast and critique related work.	S1	Class lectures, working with the team, reading about the topic	Presentations, Reports
2.2	Generate functional and non-functional requirements.	S6	Class lectures, working with the team in real cases.	Presentations, Reports
2.3	Analyze the problem and develop an initial solution.	S4	Working with the team in real cases.	Presentations, Reports
3.0	**Values, autonomy, and responsibility**			
3.1	Apply a multi-disciplinary approach to designing the project.	V1, V2	Class lectures, working with the team, reading about the topic	Presentations, Reports
3.2	Demonstrate his/ her ability to work independently and in a team.	V1	Distributed work	Presentations, Reports
3.3	Demonstrate his/ her ability to communicate effectively.	V2	working with the team,	Presentations, Reports
3.4	Prepare a report for the project	V2	Reviews, Feedback	Final Report

C. Course Content

No	List of Topics	Contact Hours
1.	Class1: Course syllabus presentation	5
2.	Class2: Review of graduation policy	5
3.	Class 3: Project Proposal (Vision document/feature list)	15
4.	Class 4: Basics of project management (Tasks, plan, scope)	15
5.	Class 5: Presentation tools and techniques	10
6.	Class6: Requirements / Requirements Validation / Functional Specification Document	10
7.	Class 7: Use case Diagram, Use Case Description / Activity Diagram / Sequence Diagram	10
8.	Class 9: Data Flow Diagram, System Architecture	10
9.	Class 9: Database/ ER Diagram	5
10.	Review final work	5
	Total	**90**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Presentation 1(By supervisor)	5th week	12%
2.	Presentation 2(By supervisor)	7th week	12%
3.	Final Presentation (By Examiners)	12-13 weeks	25%
4.	Final Report (By Examiners)	14-17 weeks	25%
5.	Task assignments (By supervisor)	2-13 weeks	26%

*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	1. Information Technology Project Management, Kathy Schwalbe, latest edition. 2. Modern System Analysis & Design- Jeffrey Hpffer, Joey George, Joseph Valacich, latest edition, Pearson

	3. B.A. Forouzan, Data Communications and Networking, latest edition, McGraw – Hill 4. Electronic Commerce 2010, A Managerial Perspective, Prentice Hall, (latest edition). Efraim Turban, Jae Lee, David King and Michel Chung 5. Ethical and Social Issues in the Information Age, Joseph M. Kizza Springer; latest Edition. 6. Harpreet Singh, (Implementing Cisco Networking Solutions: Configure, implement, and manage complex network designs 1st Edition, Kindle Edition), Packt Publishing, 2017.
Supportive References	(Journals, Reports, etc.)
Electronic Materials	Web Sites, Facebook, Twitter, etc.
Other Learning Materials	Computer-based programs/CDs, professional standards or regulations and software.

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom and the instructor may ask for a laboratory if needed.
Technology equipment (projector, smart board, software)	Data show and the instructor may ask for software if needed.
Other equipment (depending on the nature of the speciality)	Depends on the project requirements.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students, instructors and peer review	- Online course survey: By the end of each semester, students give their opinions about many factors in the course. They give feedback about teaching strategies, assessment methods, textbooks, instructors, etc. - Feedback about Course Learning Outcomes (CLOs): A course survey is distributed to students to get their opinions about the CLOs.
Effectiveness of students' assessment	Instructor, faculty, and student	- Discussion with other faculty members about students' understanding and the best way of teaching them. - Peer consultation on teaching

Assessment Areas/Issues	Assessor	Assessment Methods
		- Discussions within the group of faculties teaching the same course before
Quality of learning resources	Instructor and Faculty	- Describe the relationship between the course's topics and CLOs. - Course syllabus must be distributed in the first week. It should contain the necessary information about the course (CLOs, assessment methods, descriptions, etc.) - Feedback from the students about the understanding of lectures in academic advising hours. - Analysis of the critical topics with real-life examples and preparation of good effective PPT slides. - By suggesting good teaching methodologies - Ensure that all students participate in the class. - Encourage students to attend during office hours to clarify their doubts.
The extent to which CLOs have been achieved	Peer and instructor	- The course coordinator has to approve the exams and grades of students in exams. - The curriculum committee will review all courses by the end of each semester and approve actions and improvements plan to be carried out. - Getting feedback from the students who will pass the course and work in the practical field. - The vice dean and the dean of the college have to approve the final grades.
the planning arrangements for periodically reviewing course effectiveness and planning for improvement	Instructor	- Each semester, the instructor has to teach the course according to the previous course materials (Course specification, report, improvement plan, etc.). - By the end of each semester, the instructor must prepare a course file which contains all activities and practices taken in the course. Achievements of CLOs can be used if the students' levels improved or not

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect
Effectiveness of students' assessment	Students	Indirect
Quality of learning resources	Instructor, Students	Indirect
The extent to which CLOs have been achieved	Instructor, Examiners	Direct

Assessment Areas/Issues	Assessor	Assessment Methods
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	NETWORK AND COMMUNICATIONS ENGINEERING DEPARTMENT COUNCIL
REFERENCE NO.	**14450824-0482-00014**
DATE	**5/3/2024**