Course Specification
(Bachelor)

Course Title:	Applied Project
Course Code:	281 CIS- 3
Program	**Technical support**
Department	**Computer Department**
College:	**Applied College**
Institution	:Najran University
Version	: 3
Last Revision Date:	1-10-2024

Table of Contents

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: (2nd year, level 4)					
4. Course General Description:					
This course introduces the scientific research methods under the supervisor guidance to focus on a specific project and students should search through information sources such as the library and the Internet. At the end of the semester, students should submit the final report of the project to the supervisor for reviewing.					
5. Pre-requirements for this course (if any):					
All the previous courses					
6. Co-requisites for this course (if any):					
NO					
7. Course Main Objective(s):					
• To provide hands-on training to design a software product according to the procedure and practices as pictured in Software Engineering. • To develop the ability to synthesis information and knowledge in the field of Scientific and applied Research • To develop presentation skills and to speak with audience. • To Be able to work effectively as a member of a development team and under guidance.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3 hours per week	100%
2	E-learning		

No	Mode of Instruction	Contact Hours	Percentage
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	0
2.	**Laboratory/Studio**	45
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 the program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Identify solutions to real-world problems using the knowledge gained during the study.	K2	Seminar Discussion Presentation Searching Teamwork	Weekly Report
1.2	Understand the basic concepts of scientific research methodology	K1	Discussion	Follow up Form. periodic evaluation
...				
2.0	**Skills**			
2.1	Develop software system to solve specific problem	S2	Seminar Discussion Presentations Brainstorming	Follow up Form. periodic evaluation
2.2	Design a system that solves the selected problem	S4	Discussion Presentations Lab work	Final Presentation

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
			Project Brainstorming	
...	Analyze the data to get the results and then discuss them	S3	Teamwork	Final report
3.0	**Values, autonomy, and responsibility**			
3.1	Demonstrate projects and assignments in team work to assemble computer and operate it.	V2	Small group work Group Presentation Projects	Group report
3.2				
...				

C. Course Content

No	List of Topics	Contact Hours
1.	Problem definition	3
2.	System Study/ Field Survey / Literature Survey.	3
3.	Requirement Analysis	6
4.	Data Flow Diagrams / Algorithm design/ Flow Chart design, Comparison Design	6
	Code generation for various modules and algorithms	6
	Testing of modules and refinements / Starting of experimental analysis	3
	Validation / consolidation of algorithms results.	3
	Integrating the modules in formulation of research / Experimental findings.	6
	Testing the software as one unit	6
	Writing professional documents and revised it & Project Defense	3
Total		**45**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Student review of the supervisor	during the semester	5

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
2.	Student cooperation with co-workers	during the semester	10
3.	Refer the student to the sources and references	during the semester	5
4.	Student understanding of application development concepts	3	10
5.	The student's ability to analyze the problem to find solutions	7-6-5	5
6.	The ability of the student to design a system to solve the problem	10-12	8
7.	The student's ability to develop a software system	11	7
8.	Search	13	10
9.	Discussion	14	40
10.	Total		100

*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	Information Technology Project Management , Kathy Schwalbe, 7th edition, 2014
Supportive References	Modern System Analysis & Design- Jeffrey Hpffer, Joey George, Joseph Valacich, 6th edition, Pearson • Benjamin Rosenzwing, Elena Silvestrova, Oracle PL/SQL by Example, Printice Hall, Latest Edition. • Sommerville, Software Engineering, Edition 8, 2007 • Herbert Schildt The Complete Reference, JAVA 2, Latest Edition, McGraw Hill Publishing Company Ltd . • Data Structures and Algorithms in Java, 5th Edition, by Michael Goodrich and Roberto Tamassia. • B.A. Forouzan, Data Communications and Networking, fourth edition, McGraw – Hill • Electronic Commerce 2010, A Managerial Perspective, Prentice Hall, (latest edition). Efraim Turban, Jae Lee, David King and Michel Chung Ethical and Social Issues in the Information Age, Joseph M. Kizza Springer; 4th Edition, 2010
Electronic Materials	http://www.nu.edu.sa/web/guest/979 • Najran University E.Library Saudi Digital Library
Other Learning Materials	Searching the Internet

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	General Lab Depending on the individual projects
Technology equipment (projector, smart board, software)	Depending on the individual projects, computational facilities will vary
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Student	Direct: Questioners
Effectiveness of Students assessment	Teacher Audit and review committees	Direct: CW & HW Exercises and short quizzes Projects Mid and final paper exams.
Quality of learning resources	Teachers and course description committees	Indirect: Benchmarking Self-evaluation External evaluation
The extent to which CLOs have been achieved	Teacher	Direct: Measuring the learning outcomes
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	