هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**Final Project**
Course Code:	**495 COMP-3**
Program:	**Bachelor in Computer Science**
Department:	**Computer Science**
College:	**College of Computer Science and Information Technology**
Institution:	**Jazan University**
Version:	**V2**
Last Revision Date:	**12 September 2021**

Table of Contents:

A. General information about the course:

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:	Level 15/Year 5				
4. Course general Description This is a capstone course emphasizes team collaboration and application of modern software engineering approaches to software construction. The development by each team of an original, industry strength software product is the main objective of the course. The instructors will present lectures on the Unified Modeling Language (UML) and its application to object-oriented analysis and design and the teams will report on their project's progress by giving presentations and submitting deliverables related to the project. The teams will deliver and present project parts at the following stages: topic proposal (concept), software specification (requirements), design (model), and implemented software (final product). At the end of the semester, there will be a final Project presentation where students will demonstrate and presentation the outcome and findings of the project work..					
5. Pre-requirements for this course (if any): None					
6. Co- requirements for this course (if any): None					
7. Course Main Objective(s) ➢ Re-traverse the knowledge gained during the whole B.S. (Computer Science) course that is useful for analyzing and understanding the software development process. ➢ Explain the applicability of this knowledge to develop an industry level capstone project that uses all these knowledge gained throughout the B.S. program. ➢ Practically demonstrate the steps involved in the software project development. ➢ Help the students in gaining the insight about the software industry working.					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	44	80%
2.	E-learning		
3.	Hybrid • Traditional classroom • E-learning		
4.	Distance learning (Self Learning)	11	20%

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	11
2.	Laboratory/Studio	22
3.	Field	
4.	Tutorial	
5.	Others (specify)	6
	Total	39

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	Use current techniques, skills and tools necessary for project and system development, such as WBS, Gant Chart, Use Case Diagram, ER diagram, etc.	K2	Revising of the previous courses already covered in Software Engineering course and briefly explaining these again to students.	First Examiners Assessment. Supervisor Assessment. Final Examiners Assessment.
2.0	Skills			
2.1	Analyze a specific problem, identify the requirements and define the techniques and	S1	Providing online resources, literature surveys,	First Examiners Assessment.

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	specifications to solve the problem.		studying similar system either onsite or online and discussion with students.	Supervisor Assessment. Final Examiners Assessment.
2.2	Apply scientific, current technical knowledge and skills earned throughout the program during project development life cycle.	S4	Supervisors concentrate more in the case of research project. Guidance and assistance provided at every stage of the project development.	Supervisor Assessment. Final Examiners Assessment.
2.3	Design, plan, implement and evaluate a significant software project and will extend their knowledge of requirements elicitation and specification, software design, implementation, and integration.	S3	Students responsible for designing and implementing the project. Supervisors and Advisors regarding their project provide regular guidance, assistance and valuable inputs given to them and each level of project	Supervisor Assessment. Final Examiners Assessment.
2.4	Develop communication skills by planning, preparing and delivering a verbal presentation, to a professional standard, on their own academic work, making effective use of presentation aids, in a professional forum	S5	Guidance provided in preparing project design. Final Project Report prepared by students using standard guidelines for Graduation project in guidance of	Supervisor Assessment. Final Examiners Assessment.

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
			Project Supervisor.	
3.0	Values, autonomy, and responsibility			
3.1	Identify the professional, ethical, legal, security and social issues and responsibilities.	V1	Students are required to carry out equal responsibility as a contributing team member. Students are required to assess other teammate's performance as part of the final project assessment and writing requirement. Students made aware of the consequences of plagiarism in their reports.	Supervisor Assessment. Final Examiners Assessment.
3.2	Adhere to a team project to deliver an industry-strength application that will increase their ability to work towards accomplishing project goals as team members.	V2	Regular interactive meetings held with the supervisor at weekly basis and discussions held for collaboration among team members	Supervisor Assessment. Final Examiners Assessment.
3.3	Present their work in a professional manner while addressing the audience in the domain.	V3	Regular interactive meetings held with the supervisor at weekly basis and discussions held for collaboration	Supervisor Assessment. Final Examiners Assessment.

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
			among team members	

C. Course Content

No	List of Topics	Contact Hours
1.	a) Discussion of the method for selecting the graduation project.	3
2.	Determine the subject of the project and assigning references to students to read about the project. Discussing the ways to build the project and set a timetable for project	3 + 2
3.	Theoretical explanation for the building and writing of the project and the preparation of the report.	8
1.	Time to time open discussion with students about accomplished tasks and remaining ones.	3
2.	Implementation of the project and processing requirements.	8
3.	Showing initial outputs of the project.	2
4.	Documentation of the project	10
5.	Pre-Final presentation of the project.	

Total	39

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	First Examiner Assessment	7th-8th week	20%
2.	Supervisor Assessment	11th Week	40%
3.	Final Presentation	As per schedule	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	Reference materials are suggested by Project Supervisors and Project Advisors on the basis of nature of project and requirement.
Supportive References	i). Fundamentals of Software Engineering, Ian Somerville, Pearson Publications, 10th Edition, 2015, ISBN-13: 978-0133943030. ii). UML 2 and the Unified Process: Practical Object-Oriented Analysis and Design, Jim Arlow, Ila Neustadt, Addison-Wesley publisher, 2nd Edition, 2005, ISBN13: 9780321321275. iii). Modern System Analysis and Design, Jeffrey Hoffer, Joey George, and Joseph Valacich, Pearson Publisher, 7th edition , 2013, ISBN-13: 978-0132991308.
Electronic Materials	• http://nptel.ac.in/courses.php?branch=Comp • https://www.coursera.org/ • http://java.sun.com/docs/books/tutorial/ • http://ssw.jku.at/Misc/CC/
Other Learning Materials	Jazan University web portal BLACKBOARD is a platform that is used by the Project Supervisors and students for communication and sharing resources apart from regular classroom mode that also provide different networking and group discussion facilities. Some useful websites are : http://cse.final-year-projects.in/ http://www.dreamincode.net/ http://www.w3schools.com/ http://www.soloscript.com/ http://www.java2s.com/

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	• Classroom equipped with projector, whiteboard, and sufficient seating arrangements. • Lab with software installed and individual computer terminal for each student.
Technology equipment (projector, smart board, software)	• Whiteboards and projectors for classroom and labs • Computer Lab equipped with 30 PCs having J2ME platform in Net beans 7.0 • An active internet connection.
Other equipment (depending on the nature of the specialty)	None

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect (Course evaluation survey form)
Effectiveness of students assessment	CRC / QAU / HoD	Direct (Course reports / result analysis)
Quality of learning resources	Track leaders / CRC	Indirect (Review, meetings and star rating with suggestions for further modification and improvements)
The extent to which CLOs have been achieved	CRC / QAU	Direct (CLO assessment template further verified at course coordinator, Track leader and QAU level)
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	DEPARTMENT COUNCIL

REFERENCE NO.	
DATE	15/10/2022