هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**Senior Project for IT 1**
Course Code:	**IT11003**
Program:	**Bachelor of Information Technology**
Department:	**Information Technology**
College:	**Faculty of Computer Science and IT**
Institution:	**AlBaha University**
Version:	**01**
Last Revision Date:	**29 March 2023**

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:					
4. Course general Description This course is the first part of a theoretical and practical research project which represents a real-life like experience where students team up to solve a real-world information technology problem by applying the knowledge acquired across various undergraduate courses. The students can also comprehensively investigate a specific IT research problem for research-based projects and write a research paper on this issue. During the realization of this project, the students are required to investigate, analyze and design a solution for the studied problem following an appropriate planning. The main achievements of this course will be communicated through a project report, oral presentation and poster showing the system analysis and design.					
5. Pre-requirements for this course (if any): Software Engineering (CS10503) and Earned 85 Credit Hours					
6. Co- requirements for this course (if any):					
7. Course Main Objective(s) The main objectives for this course are to: 1. Provide students with an opportunity to formulate questions and to discover feasible solutions. 2. Develop the student's abilities to apply, demonstrate and integrate comprehensive knowledge acquired across various undergraduate courses. 3. Allow students to use resource materials and to collect information and data (using SDL, college library, Internet, …) required to complete the project. 4. Make students capable of integrated project planning, scheduling, analysis and design using the new technologies/methodologies. 5. Expose the students to group learning and teamwork, time and stress management, and allow them also to demonstrate individual initiative.					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	33	100%
2.	E-learning		
3.	Hybrid • Traditional classroom • E-learning		
4.	Distance learning		

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify) **meetings which can be through a Learning management System - LMS (e.g Rafid)**	33
	Total	33

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	Define an IT-related real-life problem	K1	• Physical and online meetings with supervisor • Group discussion • Project assignments • Reading	• Midterm Evaluation (Rubrics) • Final Evaluation Exam (Rubrics)
1.2	Identify a feasible solution	K2	• Physical and online meetings with supervisor - Group discussion - Project assignments Reading	• Midterm Evaluation (Rubrics) • Final Evaluation Exam (Rubrics)
2.0	Skills			
2.1	Have an ability understand and identify various software testing problems, and solve these problems by designing and selecting software test models, criteria, strategies, and methods.	S1	• Physical and online meetings with supervisor • Group discussion • Project assignments • Reading and research	• Midterm Evaluation (Rubrics) • Final Evaluation Exam (Rubrics)
2.2	Have an ability to use various communication methods and skills to communicate with their teammates to conduct their practice-oriented software testing projects.	S2	• Physical and online meetings with supervisor and stakeholders • Group discussion • Project assignments • Case Study • Seminars/Trainings	• Midterm Evaluation (Rubrics) • Final Evaluation Exam (Rubrics)
2.3	Have basic understanding and knowledge of contemporary issu	S3	• Physical and online meetings with supervisor • Group discussion	• Final Evaluation Exam (Rubrics)

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	es in software testing, such as component-based software testing problems		• Project assignments • Case Study • Seminars/Trainings	
2.4	Conduct a feasibility study, project development plan and literature review	S4	• Physical and online meetings with supervisor • Group discussion • Preparing documentations • Seminars/Trainings	• Midterm Evaluation Exam (Rubrics) • Final Evaluation Exam (Rubrics) • Report and slides assessment •
3.0	Perform the analysis and define the detailed requirements and specifications			
3.1	Make the assigned tasks on time within a team or independently with seriousness, enthusiasm, responsibility and respect to ethics and to other's opinions.	V1	• Physical and online meetings with supervisor • Group discussion • Project assignments • Seminars/Trainings	• Midterm Evaluation Exam (Rubrics) • Assessment of student commitment, seriousness, and enthusiasm (following supervisor instructions including attending required training and workshops) • Final Evaluation Exam (Rubrics)
...				

C. Course Content

No	List of Topics	Contact Hours
1.	Problem identification	6
2.	Conducting literature review	3
3.	Defining and formulating the problem, objectives, and project domain.	3
4.	Defining the functional requirements, system requirements, technical requirements, system qualities, constraints, and assumptions, and using	6

	the proper UML diagrams, most importantly, Use Case diagrams, Sequence diagrams, and Activity diagrams	
5.	Solution design and modeling (including interfaces/screens, database, input/output)	6
6.	Providing the proposed testing and implementation plans.	3
7.	Project documentation writing (reports, presentations, poster, …)	6
8.		
9.		
10.		
11.		
12.		
13.		
Total		33

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm Evaluation Exam	Week 6	30% (by the project Supervisor)
2.	Report and slides assessment	Week 11	10% (by the project supervisor/rubric)
3.	Assessment of student commitment, seriousness, and enthusiasm (following supervisor instructions including attending required training and workshops)	Before the end of week 11	10% (by the project supervisor/evidence)
4.	Final Evaluation Exam (Oral Presentation in front of the Evaluation Committee as well as providing a project report)	Week 12	50% (by independent evaluation committee)
...	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	ACM (Association for Computer Machinery) Curricula Recommendations 2017 – https://www.acm.org/binaries/content/assets/education/curricula-recommendations/it2017.pdf
Supportive References	None
Electronic Materials	Access to the Saudi Digital Library (SDL). Using the learning management system of the university – Rafid System (https://lms.bu.edu.sa/).
Other Learning Materials	Project Specific (depends on the project specific hardware and software requirements)

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	• A classroom or lecture hall with whiteboard for 3-5 students or more to present their project work. • A laboratory with 3-5 computers or more to be used to prepare the project.
Technology equipment (projector, smart board, software)	• A laptop or access to a desktop computer with access to necessary computational tools and platforms. • A digital image projection system with connection to desktop or laptop computer. • High speed Internet connection
Other equipment (depending on the nature of the specialty)	• Mainly the software and hardware used for IT-related senior projects (e.g networking, cloud-computing, IoT, cybersecurity, system administration, ….).

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	• Students • Peer Reviewer • Program Leaders	• Survey (indirect) • Peer review (direct) • Class visit (direct)
Effectiveness of students assessment	• Students • Exam Evaluation Committee • Course Coordinator	• Survey (indirect) • Exam Review (direct) review of course file (direct)
Quality of learning resources	• Faculty • Students	Survey (indirect)

Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved	• Faculty • Program Leaders or Course Coordinator	• Exams (direct) • Exit Exams (direct)
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	29/01/2023