هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**Software Testing**
Course Code:	**IT1513**
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 designed to equip bachelor degree students with the necessary skills to get familiar with software testing. Software testing is defined as work to check whether the actual results match the expected outcome and to make sure that the software is problem-free. It requires the execution of a software component or system component to evaluate one or more interest properties. Software testing also helps identify gaps, missing requirements, and errors contrary to the actual requirements.					
5. Pre-requirements for this course (if any): None.					
6. Co- requirements for this course (if any):					
7. Course Main Objective(s) Upon successful completion of the course, the student will develop fundamental understanding and competency in the following topics: 1. Using software and other tools to test software and systems for quality control. 2. Ensure that the software conforms to the code design. 3. Perform requirements definition. 4. Perform software design. 5. Code new software. 6. Perform source code control. 7. Perform code reviews. 8. Perform change management. 9. Perform product integration, product testing, and release management.					

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	33
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify)	
	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	Have an ability to apply software testing knowledge and engineering methods.	K1	• Lectures • Assignments • Exercises	• Quizzes • Midterm Exams • Final Exam
1.2	Have an ability to design and conduct a software test process for a software testing project	K2	• Lectures • Assignments • Exercises	• Quizzes • Midterm Exams • Final Exam
1.3	Have an ability to identify the needs of software test automation, and define and develop a test tool to support test automation.	K2	• Lectures • Assignments • Exercises	• Quizzes • Midterm Exams • Final Exam
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	• Lectures • Assignments • Lab Exercises	• Quizzes • Midterm Exams • Final Exam
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	• Lectures • Assignments • Lab Exercises	• Quizzes • Midterm Exams • Final Exam
2.3	Have basic understanding and knowledge	S3	• Lectures • Assignments	• Quizzes • Midterm Exams

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	of contemporary issu es in software testing, such as component-based software testing problems			• Final Exam
3.0	Values, autonomy, and responsibility			
3.1	Have an ability to use software testing methods and modern software testing tools for their testing projects.	V1	• Assignments • Oral Presentations	• Reports • Presentations • Class Discussions
3.2	Gain the techniques and skills on how to use modern software testing tools to support software testing projects	V2	• Assignments • Oral Presentations	• Reports • Presentations • Class Discussions
...				

C. Course Content

No	List of Topics	Contact Hours
1.	Foundations of Testing	9
2.	Testing Throughout the Software Life Cycle	6
3.	Test Design Techniques	6
4.	Test Organization	6
5.	Tool Support for Testing	6
6.		
7.		
8.		
9.		
10.		
Total		33

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Homework and class discussion	Weekly	10%

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
2.	Midterm	5th week	20%
3.	Quiz	9th Week	20%
4.	Final Exam	11th Week	40%
...	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	Foundations of Software Testing ISTQB Certification, 3rd Edition Rex Black, Erik van Veenendaal and Dorothy Graham ISBN-10: 1408044056 ISBN-13: 9781408044056 256 Pages Paperback ©2012 Cengage
Supportive References	The Art of Software Testing, 3rd Edition **Author:** Glenford J. Myers, Corey Sandler, Tom Badgett.
Electronic Materials	None
Other Learning Materials	None

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	• A classroom or lecture hall with whiteboard for 25 students.
Technology equipment (projector, smart board, software)	
Other equipment (depending on the nature of the specialty)	

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	Survey (indirect)

Assessment Areas/Issues	Assessor	Assessment Methods
	• Students	
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