2023
TP-153

Course Specification
(Bachelor)

Course Title:	Selected Topics in Software Engineering
Course Code:	SE1753
Program:	Bachelor of Software Engineering
Department:	Software Engineering
College:	Faculty of Computers and Informatics
Institution:	Al-Baha University
Version:	1.0
Last Revision Date:	23/4/2024

Table of Contents

A. General information about the course:

1. 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: (9)					
4. Course general Description:					
This course is designed to enable students to study different special topics of interest, which are carefully selected from software engineering topics. The contents of such a course are to be determined by the department council each time the course is offered. Topics of interest could be one or several from the following: Formal specifications using formal languages (Z, B, etc.), design patterns, component-based development, Agile and extreme programming, Aspect-oriented architecture, Service-oriented computing, and architecture, etc. Other topics can be added as needed. Students participate in group projects related to the special topic(s) selected.					
5. Pre-requirements for this course (if any)**:**					
None					
6. Pre-requirements for this course (if any)**:**					
None					
7. Course Main Objective(s):					
The main objective of this course is to teach students different topics and concepts of software engineering and computer science such as design patterns, component-based development, Agile and extreme programming, Aspect-oriented architecture, Service-oriented computing, and architecture which allow them to gain enough knowledge and skills aligned to the course.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3	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**	3
2.	**Laboratory/Studio**	0
3.	**Field**	0
4.	**Tutorial**	0
5.	**Others (specify)**	0
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	**Identify the main concepts of software engineering in different topics.**	**K1**	**Lecture, exercise, and**	**Quiz, exams, ,assignments**
1.2	**Explain the basic information and theories about design and component of development.**	**K2**	**group discussion**	**Quiz, exams, ,assignments**

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.3	Define some design aspects and architecture.	K3	Lecture, exercise, and	Quiz, exams, ,assignments
2.0	**Skills**			
2.1	Apply software engineering concepts and principles in a concrete software project working in teams.	S1	Lecture, Group discussion.	Exams, assignments, project.
2.2	Demonstrate team work in a realistic size using partly unfamiliar technology and tools by using the IT industry.	S2	Lecture, Group discussion.	Exams, assignments, project.
3.0	**Values, autonomy, and responsibility**			
3.1	Demonstrate responsibility, ethics, and effective teamwork	V1	Project, Discussion	Project

C. Course Content

No	List of Topics	Contact Hours
1.	Formal specifications using formal languages	3
2.	Design patterns	3
3.	Component-based development	3
4.	Agile and extreme programming	3
5.	Aspect-oriented architecture	3
6.	Service-oriented computing and architecture	3
7.	Software engineering process	4
8.	Deliverables	4
9.	Project management techniques	4
10.	software quality	3
Total		**33**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Assignments and Quizzes	4,6,9	20%
2.	Group Project	10	20%
3.	Midterm Exam	5	20%
4.	Final Exam	11	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	Winters, T., Manshreck, T. and Wright, H., 2020. Software Engineering at Google Lessons Learned from Programming Over Time. 1st ed. O'Reilly Media, Inc.
Supportive References	N/A
Electronic Materials	N/A
Other Learning Materials	N/A

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom
Technology equipment (projector, smart board, software)	Data show
Other equipment (depending on the nature of the specialty)	N/A

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching		
Effectiveness of Students assessment		
Quality of learning resources		

Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved		
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**Curriculum Committee**
REFERENCE NO.	
DATE	**28 April 2024**