

QF01/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Department
----------------	--

Study plan No.	2021/2022	University Specialization	Software Engineering
Course No.	0114458	Course name	Software Quality Management
Credit Hours	3	Prerequisite Co-requisite	Software Testing
Course type	<input type="checkbox"/> MANDATORY UNIVERSITY REQUIREMENT <input type="checkbox"/> UNIVERSITY ELECTIVE REQUIREMENTS	<input type="checkbox"/> FACULTY MANDATORY REQUIREMENT <input type="checkbox"/> Support course family requirements	<input checked="" type="checkbox"/> Mandatory requirements <input type="checkbox"/> Elective requirements
Teaching style	<input type="checkbox"/> Full online learning	<input checked="" type="checkbox"/> Blended learning	<input type="checkbox"/> Traditional learning
Teaching model	<input type="checkbox"/> 2Synchronous: 1asynchronous	<input checked="" type="checkbox"/> 2 face to face : 1synchronous	<input type="checkbox"/> 3 Traditional

Faculty member and study divisions information (to be filled in each semester by the subject instructor)

Name	Academic rank	Office No.	Phone No.	E-mail	
Division number	Time	Place	Number of students	Teaching style	Approved model

Brief description

<p>This course defines the quality of the software, the foundations of quality measurement system, quality management, assurance of quality, planning, quality of product and process quality, software product metrics, management of the quality factors of the software and its effectiveness, global scale ISO 9001, check the software and plans and techniques for quality.</p>

Learning resources

Course book information (Title, author, date of issue, publisher ... etc)	Software Quality: Concepts and Practice: Concepts and Practice. By: Daniel Galin. 2018 the IEEE Computer Society.				
Supportive learning resources (Books, databases, periodicals, software, applications, others)	<ol style="list-style-type: none"> 1. Chemturi, Murali (2010). "Mastering Software Quality Assurance: Best Practices and Techniques for Software Developers", the Publisher: the Author. 2. Godbole, Nina S. (2014). "Software Quality Assurance: Principles and Practice", 2nd edition, Alpha Science International, Pangbourne, UK. 3. Goodman P. (2004) "Software Metrics: Best Practices for Successful IT Management", Rothstein Asso., Brookfield, CONN, USA 				
Supporting websites	https://asq.org/				
The physical environment for teaching	<input checked="" type="checkbox"/> Class room	<input type="checkbox"/> labs	<input checked="" type="checkbox"/> Virtual educational	<input type="checkbox"/> Others	

QF01/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Department
----------------	--

			platform	
Necessary equipment and software	-			
Supporting people with special needs	-			
For technical support	-			

Course learning outcomes (S= Skills, C= Competences K= Knowledge,)

No.	Course learning outcomes	The associated program learning output code
Knowledge		
K1	A student will discuss and develop an awareness of the concepts, needs, and challenges of software quality.	BK3
K2	A student will be able to discuss the several quality factors and their sub-factors.	BK3
K3	Student will be able to demonstrate their capabilities to adopt different software quality models.	BK4
Skills		
S1	A student will be able to describe the software quality assurance architecture and its' infrastructure.	BS3
S2	A student will be able to use the software quality assurance activities in software development process.	BS4
S3	A student will be able to compare varieties tools of the software quality assurance.	BS4
Competences		
C1	A student will be able to apply different software quality metrics.	BC3
C2	A student will be able to evaluate different quality management standards.	BC3

Mechanisms for direct evaluation of learning outcomes

Type of assessment / learning style	Fully electronic learning	Blended learning	Traditional Learning (Theory Learning)	Traditional Learning (Practical Learning)
Midterm exam	30%	30%	40%	30%
Participation / practical applications	0	0	10%	30%
Asynchronous interactive activities	30%	30%	0	0
Final exam	40%	40%	50%	40%

Note: Asynchronous interactive activities are activities, tasks, projects, assignments, research, studies, projects, work within student groups ... etc, which the student carries out on his own, through the virtual platform without a direct encounter with the subject teacher.

QF01/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Department
----------------	--

Schedule of simultaneous / face-to-face encounters and their topics

Week	Subject	learning style*	Reference **
1	Quality Overview	Lecture	Chapter 1
2	Quality Concepts	Lecture	Chapter 1
3	Review Techniques	Lecture	Chapter 2
4	Software Quality Factors	Lecture	Chapter 2
5	Software Quality Factors (Cont.)	Problem Solving	Chapter 3
6	Software Quality Assurance	Lecture	Chapter 3
7	Software Quality Assurance (Cont.)	Problem Solving	Chapter 4
8	Software Quality Models	Lecture	Chapter 4
9	Software Quality Models (Cont.)	Problem Solving	Chapter 5
10	Quality management Standards	Lecture	Chapter 5
11	Quality management Standards (Cont.)	Problem Solving	Chapter 6
12	Measures, Metrics, and Indicators	Lecture	Chapter 6
13	Measurement Principles	Lecture	Chapter 7
14	A Framework for Product Metrics	Lecture	Chapter 7
15	A Framework for Product Metrics (Cont.)	Problem Solving	Chapter 7
16	Final Exam		

* Learning styles: Lecture, flipped learning, learning through projects, learning through problem solving, participatory learning ... etc.

** Reference: Pages in a book, database, recorded lecture, content on the e-learning platform, video, website ... etc.

Schedule of asynchronous interactive activities (in the case of e-learning and blended learning)

Week	Task / activity	Reference	Expected results
1	Chapter One Questions	Text Book	Questions Solutions
2	Chapter One Questions	Text Book	Questions Solutions
3	Chapter two Questions	Text Book	Questions Solutions
4	Chapter two Questions	Text Book	Questions Solutions
5	Chapter three Questions	Text Book	Questions Solutions
6	Chapter three Questions	Text Book	Questions Solutions
7	Chapter four Questions	Text Book	Questions Solutions
8	Chapter four Questions	Text Book	Questions Solutions
9	Chapter five Questions	Text Book	Questions Solutions
10	Chapter five Questions	Text Book	Questions Solutions
11	Chapter six Questions	Text Book	Questions Solutions
12	Chapter six Questions	Text Book	Questions Solutions
13	Chapter seven Questions	Text Book	Questions Solutions
14	Chapter seven Questions	Text Book	Questions Solutions
15	Chapter eight Questions	Text Book	Questions Solutions
16	Revision	Text Book	Revision