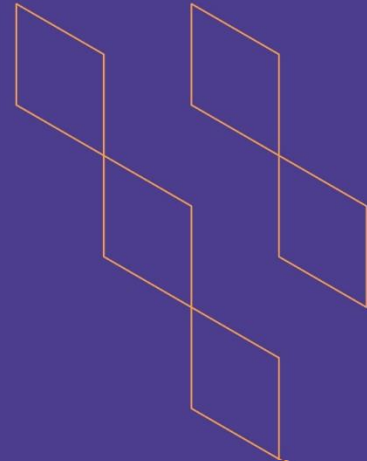




T-104
2022

Course Specification



Course Title: Senior Project for CIS 1
Course Code: IS1753
Program: Computer Information Systems
Department: Computer Information Systems
College: Computer Science & Information Technology
Institution: AI-Baha University
Version: T104 – V2
Last Revision Date: May 24, 2023



Table of Contents:

Content	Page
A. General Information about the course	3
1. Teaching mode (mark all that apply) 2. Contact Hours (based on the academic semester)	4
B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods	5
C. Course Content	6
D. Student Assessment Activities	6
E. Learning Resources and Facilities	7
1. References and Learning Resources	7
2. Required Facilities and Equipment	7
F. Assessment of Course Quality	8
G. Specification Approval Data	8



A. General information about the course:

Course Identification

1. **Credit hours:** 3 Credit Hours (3, 0, 0) (Lecture, Lab, Tutorial)
(3 Contact Hours)

2. Course type

a. University College Department Track Others

b. Required Elective

3. **Level/year at which this course is offered:** 11th level/ 4th Year

4. Course general Description

Senior Project for CIS 1 is the first part of a two-semester sequence designed for final-year students in the Bachelor of Computer Information Systems (CIS) program. The course allows students to undertake a significant software development project demonstrating their ability to apply software engineering principles and techniques to solve real-world problems. It aims to enable the students to use all the skills and knowledge they had undertaken during the preceding years. Besides, it is the first research step for those wishing to pursue their graduate studies. The course emphasizes the initial stages of the software development life cycle, including problem identification, requirements gathering, and system analysis and design. Students will work in teams to develop a project proposal that outlines the problem statement, objectives, scope, methodology, and deliverables of their software development project. The course provides an opportunity for students to develop their communication, teamwork, and problem-solving skills, which are essential for success in the information systems field. At the end of the course, students will give an oral presentation for their project to an audience of peers and faculty. They will also provide a report that documents the different phases undertaken during the project.

5. Pre-requirements for this course (if any):

IS1252-Systems Analysis and Design 2 and earned 100 CH

6. Co- requirements for this course (if any): None

7. Course Main Objective(s)

The main objectives of this course are to:

- Identify the problem statement, objectives, scope, methodology, and deliverables for a software development project.
- Review the literature/survey of existing solutions if applicable and investigate the area under study.
- Conduct a feasibility study.
- Identify the functional and non-functional requirements of the proposed system, including using proper UML diagrams.
- Design the system according to the defined requirements and constraints using appropriate UML diagrams and tools.
- Work effectively in teams.
- Communicate effectively in written project reports and oral presentations.



1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	-	-
2.	E-learning	-	-
3.	Hybrid <ul style="list-style-type: none"> • Traditional classroom • E-learning 	30	%100
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 (Meetings with supervisors which can be through a Learning Management System - LMS (e.g., Rafid) or in person)	30
	Total	30





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 problem statement, objectives, scope, methodology, and deliverables for a software development project.	K2	<ul style="list-style-type: none"> - Physical and online meetings with supervisor - Group discussion - Brain Storming - Project assignments - Reading and Research 	Direct Assessment Tool <ul style="list-style-type: none"> - Midterm Evaluation (Rubrics) - Commitment and Teamwork Continuous Assessment (Rubrics) - Final Evaluation (Rubrics)
2.0	Skills			
2.1	Conduct the literature review and feasibility study.	S1	<ul style="list-style-type: none"> - Physical and online meetings with supervisor - Group discussion - Reading and Research 	Direct Assessment Tool <ul style="list-style-type: none"> - Midterm Evaluation (Rubrics) - Commitment and Teamwork Continuous Assessment (Rubrics) - Final Evaluation (Rubrics)
2.2	Perform the analysis and the detailed requirements and specifications	S2	<ul style="list-style-type: none"> - Physical and online meetings with supervisor and stakeholders - Group discussion - Case studies - Seminars/trainings 	Direct Assessment Tool <ul style="list-style-type: none"> - Midterm Evaluation (Rubrics) - Commitment and Teamwork Continuous Assessment (Rubrics) - Final Evaluation (Rubrics)
2.3	Design a preliminary version of the system and describe the different systems design activities involved.	S2	<ul style="list-style-type: none"> - Physical and online meetings with supervisor - Group discussion - Project assignments - Case studies - Seminars/trainings 	Direct Assessment Tool <ul style="list-style-type: none"> - Commitment and Teamwork Continuous Assessment (Rubrics) - Final Evaluation (Rubrics)
2.4	Communicate effectively in written project reports and oral presentations using the appropriate project management tools and scientific research methods.	S3	<ul style="list-style-type: none"> - Physical and online meetings with supervisor - Group discussion - Preparing documentations 	Direct Assessment Tool <ul style="list-style-type: none"> - Midterm Evaluation (Rubrics) - Commitment and Teamwork Continuous Assessment (Rubrics) - Final Evaluation (Rubrics) - Peer Evaluation (Rubrics)
3.0	Values, autonomy, and responsibility			
3.1	Make the assigned tasks on time within a team or independently with seriousness, enthusiasm, responsibility, and respect for ethics and others' opinions.	V1	<ul style="list-style-type: none"> - Physical and online meetings with supervisor - Group discussion 	Direct Assessment Tool <ul style="list-style-type: none"> - Midterm Evaluation (Rubrics) - Commitment and Teamwork Continuous Assessment (Rubrics)



Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
3.2	Students will demonstrate an ability to think creatively and innovatively about the future of the field of information systems and computer science.	V4	– Group discussion	Creative and innovative project idea

C. Course Content

No	List of Topics	Contact Hours
1.	Problem Definition	3
2.	Literature Review and Feasibility Study	3
3.	Requirements Elicitation and Analysis	6
4.	System Analysis	6
5.	System Design	6
6.	Project Documentations (Oral Presentation and Final Project Report)	6
Total		30

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.	Commitment and Teamwork Continuous Assessment	Week 1-10	20% (By the project supervisor/ evidence)
3.	Final Evaluation Exam (Oral Presentation in front of the Evaluation Committee as well as providing a project report)	Week 11	50% (By independent evaluation committee)

*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	-
Supportive References	<ul style="list-style-type: none"> • Dennis, A., Wixom, B. H., & Roth, R. M. (2021). <i>Systems Analysis and Design</i>, 8th Edition. John Wiley & Sons. ISBN: 978-1-119-80378-2. • Wiegers, K., & Beatty, J. (2013). <i>Software Requirements</i>. Pearson Education. • Fowler, M. (2012). <i>Patterns of Enterprise Application Architecture</i>. Addison-Wesley. • Berkun, S. (2005). <i>The Art of Project Management</i>. O'reilly. • DeMarco, T., & Lister, T. (2013). <i>Peopleware: Productive Projects and Teams</i>. Addison-Wesley. • Freeman, E., & Robson, E. (2020). <i>Head First Design Patterns</i>. O'Reilly Media. • Robert, M. (2017). <i>Clean Architecture: A Craftsman's Guide to Software Structure and Design</i>. Prentice Hall. • Scott, K., & Fowler, M. (2017). <i>UML Distilled Second Edition a Brief Guide to the Standard Object Modeling Language</i>. Addison-Wesley. • Larman, C. (2012). <i>Applying UML and Patterns: An Introduction to Object Oriented Analysis and Design and Iterative Development</i>. Pearson Education India.
Electronic Materials	<ul style="list-style-type: none"> • Access to the Saudi Digital Library (SDL). • Using the Learning Management System of the university – Rafid System (https://lms.bu.edu.sa/). • Open-source software libraries and frameworks, such as GitHub, Stack Overflow, and Medium
Other Learning Materials	None

2. Required Facilities and equipment

Items	Resources
Facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	<ul style="list-style-type: none"> - A classroom or lecture hall 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)	<ul style="list-style-type: none"> - 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)	<ul style="list-style-type: none"> - Mainly the software and hardware used for CIS-related senior projects (e.g., Enterprise Systems, Data and Information Management, ERP, Data Mining, Big Data, ...).





F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	<ul style="list-style-type: none"> - Students - Faculty - Program Leader - Course Coordinator 	<ul style="list-style-type: none"> - Surveys (indirect). - Direct feedback from students (direct) - Comprehensive Course report (where we can find information about teaching difficulties and action plan, ...)
Effectiveness of students' assessment	<ul style="list-style-type: none"> - Students - Faculty - Program Leader - Course Coordinator - Exam Evaluation Committee 	<ul style="list-style-type: none"> - Surveys (indirect). - Direct feedback from students (direct) - Exam evaluation by the Exam Evaluation Committee (indirect)
Quality of learning resources	<ul style="list-style-type: none"> - Students - Faculty - Peer Reviewers - Course Coordinator 	<ul style="list-style-type: none"> - Surveys (indirect). - Course evaluation by Peer Reviewers (indirect) - Comprehensive Course report
The extent to which CLOs have been achieved	<ul style="list-style-type: none"> - Faculty - Program Leader - Course Coordinator 	<ul style="list-style-type: none"> - Student Results (direct) - Comprehensive Course report (where we can find the CLO assessment results)
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	Curriculum Committee Meeting
REFERENCE NO.	
DATE	May 25, 2023

