Course Specification
(Bachelor)

Course Title: **GUI Programming**

Course Code: **313CIS-3**

Program: **Bachelor of Information Systems**

Department: **Information Systems**

College: **Computer Science and Information Systems**

Institution: **Najran University**

Version: *Course Specification Version Number*

Last Revision Date: *Pick Revision Date.*

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: (3)
3(2,1,0)

2. Course type

A.	□University	□College	☒ Department	□Track	Others
B.	☒ Required			□Elective	

3. Level/year at which this course is offered: (Level 6/Year 3)

4. Course General Description:

The course aims to introduce the students to some concepts of GUI programming and UI principals. It focuses on GUI controls and composite UI components, layout components, Event handling, Charts, transformation, and Client –server architecture. In addition, GUI design, GUI user interaction. Working through databases for application through a carefully selected programming language such as HTML/CSS/JavaScript and JavaFX/.NET environment

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

6. Co-requisites for this course (if any)**:**

7. Course Main Objective(s):

The main objective of the course is to introduce the concepts: Computer Networks. Addressing and Data Comm.

- Describe GUI fundamentals, events, dialog boxes, client-server architecture, data access, web application, web application
- Develop an application using html/css/JavaScript
- Create charts and transformations and screens.
- Demonstrate Event handling mechanism.
- Develop application for data access.
- Develop teamwork and research skills in the implementation of computer interface webpages

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	50	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**	20
2.	**Laboratory/Studio**	20
3.	**Field**	
4.	**Tutorial**	10
5.	**Others (specify)**	
Total		50

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	**Describe GUI fundamentals, events, dialog boxes, client-server architecture, data access, web application, web application**	**K1**	**Lecture**	**Tests, Quizzes, and Assignments**
1.2				
2.0	**Skills**			

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
2.1	Develop an application using html/css/JavaScript	S1	Lecture, Lab	Tests, Quizzes, Assignments , and Lab
2.2	Create charts and transformations and screens	S1,S4	Lecture, Lab	Tests, Quizzes, Assignments , and Lab
2.3	Demonstrate Event handling mechanism	S2	Lecture, Lab	Tests, Quizzes, Assignments , and Lab
2.4	Develop application for data access	S4	Lecture, Lab	Tests, Quizzes, Assignments , and Lab
3.0	**Values, autonomy, and responsibility**			
3.1	Develop teamwork and research skills in the implementation of computer interface webpages	V1	Problem solving in a group	Assignment and presentation
3.2				

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to user interface design concept	5
2.	Understand and apply fundamental UI design principles while programming desktop UI components	5
3.	HTML Basics	5
4.	HTML Advance	5
5.	CCS concepts and application	5
6.	Java programming language review	5
7.	Java Script with HTML basics	5
8.	Event handling using Java Scripts	5
9.	interface evaluation (e.g., user studies, cognitive models)	5
10.	Develop application for data access	5
Total		**50**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quiz	3	10
2.	Midterm	6	20
3.	Assignment	5	10
4.	Lab Activities	1-10	10
5.	Lab Final	11	10
6.	Final Exam	12	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	**Text Book:** **HTML5 – TutoialPoint.com (pdf)** **JavaScript Tutorial – TutorialPoint.com (pdf)** **Developing User Interfaces (1998), by Dan R. Olsen, Jr. Morgan Kaufmann; ISBN 1558604189.** **Java: The Complete Reference, Ninth Edition by Herbert Schildt, Oracle Press, Mc-Graw Hill Education (Publisher), 2014**
Supportive References	
Electronic Materials	https://www.W3school.org https://www.cs.umd.edu/users/ben/goldenrules.html http://tutorials.jenkov.com/javafx/fxml.html https://www.javatpoint.com/java-swing https://www.javatpoint.com/java-awt https://www.w3schools.com/js/js_intro.asp https://www.w3schools.com/html/default. asp
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	ClassRoom & Laboratory

Items	Resources
Technology equipment (projector, smart board, software)	data show, PCs.
Other equipment (depending on the nature of the specialty)	Routing and switching Lab

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	**Students**	**Indirect**
Effectiveness of Students assessment	**Students, Faculty**	**Indirect**
Quality of learning resources	**Students, Faculty**	**Indirect**
The extent to which CLOs have been achieved	**Students, Faculty**	**Indirect**
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**17th Department Council**
REFERENCE NO.	**14460810-0976-00017**
DATE	**10/02/2025**