MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY, JAMSHORO.

TENTATIVE TEACHING PLAN (PRACTICAL)

Department: **Software Engineering** Program: **B.E. (Software Engineering)**

Name of Teacher: **Mr. Mansoor Samo**

Course Title: **Web Engineering** Course Code: **SW417**

Semester: **7th (Regular/Summer)** Batch: **20SW**

Start of Classes: **21-11-2023** End of classes: **29-03-2024**

Upon successful completion of the course, the student will be able to:

CLOs	Description	Taxonomy level	PLOs
1	Outline fundamentals of Web technologies and explain HTML, CSS and JavaScript for client-side web interfacing.	C3	1
2	Work with server-side languages to create dynamic web applications.	C5	3
3	Host web applications and create databases to store and process data proficiently.	P5	5,9

S #	Topic	CLO	Lecture/Lab Hrs required
01	HTML basics for developing web applications	1	3
02	HTML5 semantic and multimedia elements	1	3
03	JavaScript basics for user interaction	1	3
04	Form Validation using JavaScript, JavaScript Validation Patterns	1	3
05	CSS styling for web applications	1	3
06	CSS Styling Frameworks	1	3
07	Bootstrap styling framework	1	3
08	PHP basics and installation of web server	2	3
09	Control structures and arrays in PHP	2	3
10	Functions, form handling and file handling in PHP	2	3
11	Sessions and cookie management in PHP	2	3
12	Database connectivity using PHP	2	3
13	AJAX for data fetching using PHP and MySQL Database	2	3
14	Model, View and Controller (MVC) Pattern using PHP	2	3
15	CodeIgniter PHP MVC Framework	2	3
16	JavaScript Libraries in web applications	2	3
	Total Lectures		**48**

Signature of Teacher: Dated: **22-11-2023**

Remarks of DMRC: **Approved**

Signature of Program Coordinator: Dated: **12-10-2023**

Signature of Chairman: Dated:

TENTATIVE TEACHING PLAN (THEORY/PRACTICAL)

Department: **Software Engineering**   Program: **B.E. (Software Engineering)**

Name of Teacher: Ms. **Faryal Baloch**

Course Title: Multimedia Communication(sw416)   Course Code:**SW416**

Semester: 1st **(Regular/Summer)**   Batch: **20SW**

Start of Classes: 20-11-2023   End of classes: 29-03-2024

Upon successful completion of the course, the student will be able to:

CLOs	Description	Taxonomy level	PLOs
1	Explain multimedia systems that incorporate digital audio, graphics and video, pictures, integration of media, multimedia authoring, and delivery of multimedia.	C3	1
2	Discover techniques for data compression and transmission, audio and video compression, 3D modeling, and animation in multimedia.	C4	2
3	**Practice the skills in planning, designing, implementing and evaluating multimedia projects. Manage problem solving skills in assigned project related to interactive multimedia application.**	P5	5,9

S #	Topic	CLO	Lecture/Lab Hrs required
01	Introduction to adobe Photoshop and learn to edit images in Photoshop	3	3
02	Applying different layer styles to design glossy candy text effect using Adobe Photoshop.	3	3
03	Learn to design academic posters using Adobe Photoshop	3	3
04	To work with frame by frame and tweening animation by using photoshop	3	3
05	Introduction to Audacity and learn to apply editing operations and special effects on sounds.	3	3
06	Working with Text to speech converters	3	3
07	Working with google sketch up	3	3
08	To become familiar with special effects in google sketch up	3	3
09	To work with Animaker	3	3
10	To work with animated presentations by using Animaker/GoAnimate	3	3
11	To work with special effects in Swish max	3	3
12	To work with scripting in Swish max	3	3
13	designing fonts by using Glyphr studio	3	3
14	To work with easy generator	3	3
15	Exploring advance features of easy generator	3	3
16	Open ended lab	3	3
	Total Lecture/Lab Hrs.		**48**

Signature of Teacher:

Remarks of DMRC: Approved

Signature of Program Coordinator:

Signature of Chairman:

Dated: 22-11-2023

Dated: 12-10-2023

Dated:

MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY, JAMSHORO.

FRM-001-QSP-004
DEC.01, 2001.

TENTATIVE TEACHING PLAN (~~THEORY~~/PRACTICAL)

Department: **Software Engineering**   Program: **B.E. (Software Engineering)**

Name of Teacher: **Zubair Ahmed**

Course Title: **Software Construction and Development**   Course Code: **SW315**

Semester: **5th (Regular/~~Summer~~)**   Batch: **21SW**

Start of Classes: **21-11-2023**   End of classes: **29-3-2023**

Upon successful completion of the course, the student will be able to:

CLOs	Description	Taxonomy level	PLOs
1	Explain concepts of cloud computing in general and get familiar with Basics of AWS Cloud (EC2 instances, S3 Bucket and Autoscaling)	C2	1
2	Understand different services of AWS Cloud (VPC, EBS, ELB) and Cloud Databases, roles, users and Serverless services	C4	2
3	Hands-on practice on different services of AWS and deployment of cloud services	P4	5

S #	Topic	CLO	Lecture/Lab Hrs required
01	AWS Cloud Basics and EC2 Instance Creation	3	3
02	Linux Essentials and Package Management	3	3
03	Bash Scripting and Automation for DevOps	3	3
04	GIT Installation and Basic Commands	3	3
05	GitHub Workflow and Actions for DevOps	3	3
06	Fundamentals of Docker and Containerization	3	3
07	Advanced Docker Usage and Networking	3	3
08	Introduction to Kubernetes and Basic Deployments	3	3
09	Scaling Applications and Exploring Advanced Kubernetes Features	3	3
10	Fundamentals of Chef Configuration Management	3	3
11	Advanced Automation with Chef Roles and Environments	3	3
12	Introduction to Ansible and Building Playbooks	3	3
13	Working with Ansible Roles and Dynamic Inventories	3	3
14	Jenkins Fundamentals and Setting Up Basic Continuous Integration	3	3
15	Advanced CI/CD Pipelines and Integrating Jenkins with Other Tools	3	3
16	Nagios for System Monitoring and Alerting	3	3
	Total ~~Lecture~~/Lab Hrs		**48**

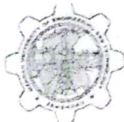Signature of Teacher: Dated: **22-11-2023**

Remarks of DMRC: **Approved**

Signature of Program Coordinator: Dated: **12-10-2023**

Signature of Chairman: Dated:

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TENTATIVE TEACHING PLAN (THEORY/PRACTICAL)

Department: **Software Engineering**   Program: **B.E. (Software Engineering)**

Name of Teacher: **Dr. Mohsin Ali Memon/ Miss. Rafia**

Course Title: **Data Structure and Algorithms**   Course Code: **SW212**

Semester: 3rd (Regular/~~Summer~~)   Batch: **22SW**

Start of Classes: **21-11-2023**   End of classes: **29-03-2024**

Upon successful completion of the course, the student will be able to:

CLOs	Description	Taxonomy level	PLOs
1	Explain various data structures such as arrays, lists, trees, graphs etc.	C3	1
2	Construct algorithms associated with each data structure.	C4	2
3	Demonstrate the implementation of algorithms programmatically.	P4	5

S #	Topic	CLO	Lecture/Lab Hrs required
01	Learn basics of course	1	2
02	Abstract data Types	1	2
03	Array operations	1	2
04	Array searching	2	2
05	Traversing a linked list	2	3
06	Various operation in linked lists	2	3
07	Various operations in stacks	2	2
08	Polish notations and implementation in stacks	2	3
09	Queue implementation and operations	2	2
10	Applications of Queue	1	2
11	Hash Table structure and Implementation	1	3
12	Collision resolution algorithms	2	3
13	Factorial, Faboniacci sequence	1	2
14	Tower of Hanoi	2	2
15	Recursive Binary search algorithm	1	2
16	Bubble sort, Selection sort, Insertion sort, quick sort, Heap sort	1	3
17	Properties of trees, traversal of unordered and ordered trees	1	3
18	Binary tree implementation	2	3
19	Storing and searching in a graph	2	2
20	Dijkstra's Algorithm	2	2
	Total Lecture/Lab Hrs		**48**

Signature of Teacher:

Remarks of DMRC: **Approved**

Signature of Program Coordinator:

Signature of Chairman:

Dated: 22-11-2023

Dated: 12-10-2023

Dated:

MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY, JAMSHORO.

TENTATIVE TEACHING PLAN (Practical)

Department: **Software Engineering**

Program: **B.E. (Software Engineering)**

Name of Teacher: Engr. Amirita Dewani

Course Title: Database Systems (Practical)

Course Code: **SW-215**

Semester: 3rd **(Regular/Summer)**

Batch: **22SW**

Start of Classes: **21-11-2023**

End of classes: **29-03-2024**

Upon successful completion of the course, the student will be able to:

CLOs	Description	Taxonomy level	PLO
1	Explain the fundamental concepts of database systems, functional dependencies, true essence of data integrity and normalization.	C2	1
2	Use SQL statements including DDL, DCL, DML, TCL, DCL for database definition and manipulation.	C3	1
3	Using Procedural Language Extension of SQL.	C3	1
4	Designing & implementing properly structured databases that match the standards based under realistic constraints and conditions.	P3	5,9

S #	Topic	CLO	Lecture Hours required
01	Installation of ORACLE	3	3
02	To become familiar with Table creation and population of table	2	3
03	To become familiar with constraints enforcement	3	3
04	To become familiar with Data De- Normalization	2	3
05	To become familiar with use of group functions and logical operators	2	3
06	To become familiar with Single row and Multiple row functions.	4	3
07	To become familiar with Joins	2	3
08	To become familiar with Sub-Queries	2	2
09	To become familiar with views and indexes.	2	3
10	To Grant privileges to users and creating user accounts	2	3
11	Introduction to PL/SQL, control structure and data types	3	2
12	To become familiar Cursors in PL/SQL	3	3
13	To become familiar with Exception Handling	3	3
14	To become familiar with stored procedures and stored functions.	3	3
15	To perform a case study	4	3
16	To perform a case study and implement properly structured database	4	3
			48

Signature of Teacher:

Remarks of DMRC: **Approved**

Signature of Program Coordinator:

Signature of Chairman:

Dated: 01/12/2023

Dated: 12-10-2023

Dated:

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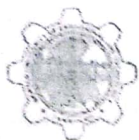
TENTATIVE TEACHING PLAN (THEORY/PRACTICAL)

Department: **Software Engineering**

Name of Teacher: **Engr. Naveen Kumar**

Course Title: **Object Oriented Programming (Pr)**

Semester: **2nd (Regular/Summer)**

Start of Classes: **18-12-2023**

Program: **B.E. (Software Engineering)**

Course Code: **SW-121**

Batch: **23SW**

End of classes: **18-04-2024**

Upon successful completion of the course, the student will be able to:

CLOs	Description	Taxonomy level	PLOs
1	Explain principles of object-oriented paradigm, class libraries, exception handling.	C2	1
2	Use class instances & their relationships to build object-oriented solutions	C3	1
3	Implement OOP concepts to develop piece of code (Programs)	P3	5

S #	Topics	CLO	Lecture/Lab Hrs required
01	Introduction to Java	3	3
02	Java Variables, Datatypes, Operators and Control Statements	3	3
03	Arrays and ArrayList (Collections and Iterators)	3	3
04	Java Strings, Mutable vs Immutable Strings	3	3
05	Object Oriented Programming Concepts, Method and Parameters	3	3
06	Polymorphism and Inheritance	3	3
07	Encapsulation and Access Modifiers (Java Packages and Standard Library)	3	3
08	Interfaces and Abstract Classes	3	3
09	Enumerations and Generics	3	3
10	Exception Handling	3	3
11	File Input and Output (Data Streams)	3	3
12	Threads and Multi-Threading	3	3
13	Java GUI Programming - 1 (AWT, SWING, Layout Manager)	3	3
14	Java GUI Programming – 2 (Event Handlers, Canvas, Animation)	3	3
15	Java 8 Streams and Lambdas	3	3
16	Python Object-Oriented Programming	3	3
	Total Lecture/Lab Hrs		**48**

Signature of Teacher:

Remarks of DMRC: Approved

Signature of Program Coordinator:

Signature of Chairman:

Dated: **18-12-2023**

Dated: **12-10-2023**

Dated: