University : Shatt Al Arab University
Faculty: Engineering Technologies
Department: Computer Technology
Engineering Stage: Fourth Lecturer
Triple Name : Dina Ayad Abdul-Jabbar
Scientific Title : Assistant Lecturer
Qualification :
 Work Location: Shatt Al Arab University

Course Weekly Outline

Course Lecturer	Dina Ayad Abduljabbar Dhahi Alshamkhani	
e-mail	pgs.dina.ayad@uobasrah.edu.iq dinaayad3@gmail.com	
Title	Multimedia Computing	
Course Objective	Clarify the concept of multimedia with an explanation of its applications and components	
Course Description	Describes the multiple forms of data representation and subtypes of each of these shapes. Uses methods and algorithms to perform some basic multimedia processors	
Textbook	1. **Fundamentals of Multimedia"**, Ze-Nian Li, Mark S. Drew Prentice Hall, 2004. 2. **"Digital Image Processing Using MATLAB"**, Rafael C. Gonzalez, Richard E. Woods, and Steven L. Eddins, Prentice Hall, 2004. 3. **"Digital video processing"**, A. M. Tekalp, Prentice Hall, 2005. **"The data compression book"**, Mark Nelson, Imprint: M & T Books, Publisher: IDG Books Worldwide, Inc., January 1, 1991..	
References		

Course Assessment	Term Exam	Project	practical	Quizzes and Attendance	Final Exam
	First		10	10	60

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Week	Date	Topics Covered	Number of Hours	Notes
1	2024/9/21	Introduction to Multimedia	2lab 2luc	The student should be able To understand the basics Multimedia
2	2024/9/28	HyperText and HyperMedia	2lab 2luc	The student should be able To understand the basics Multimedia and text types
3	2024/10/5	Components of Multimedia	2lab 2luc	The student should be able To understand the components of multiple computing
4	2024/10/12	Multimedia Research Topics and Projects	2lab 2luc	The student should be able To understand the topics and projects of multiple computing
5	2024/10/19	Multimedia Applications	2lab 2luc	The student should be able To understand multiple computing applications
6	2024/10/26	Multimedia on the web	2lab 2luc	The student should be able To

				understand multimedia on the web
7	**2024/11/2**	Multimedia Data Basics	**2lab 2luc**	**The student should be able to To distinguish between species Different media data Multiplexo**
8	**2024/11/9**	Graphics and Image Data Representation (1)	**2lab 2luc**	**The student should be able to To know the representation of images, graphics and multimedia data**
9	**2024/11/16**	Graphics and Image Data Representation (2)	**2lab 2luc**	**The student should be able to To know the representation of images, graphics and multimedia data**
10	**2024/11/23**	Image Digitization	**2lab 2luc**	**The student should be able to He should know how to represent digital images.**
11	**2024/11/30**	Spatial resolution and quantization	**2lab 2luc**	**The student should be able to To know the spatial resolution of the images**
12	**2024/12/7**	Type of Image	**2lab 2luc**	**The student should be able to To know the types of pictures**
13	**2024/12/14**	Image file formats	**2lab 2luc**	**The student should be able to To know the formats of the image file**

14	2024/12/21	Arithmetic operation on image	2lab 2luc	The student should be able to Provided that he applies the operations Sports that Can be executed on Pictures
15	2024/12/28	Logical operation on image	2lab 2luc	The student should be able to Provided that he applies the operations Logical that Can be executed on Pictures
16	2025/1/4	Image histogram	2lab 2luc	The student should be able to To draw a graph of the images
17	2025/1/11	Histogram modification and histogram equalization	2lab 2luc	The student should be able to To draw a graph of the images Other operations Associated with image graph processing and graph types
18	2025/1/18	Image compression techniques (1)	2lab 2luc	The learner will be able to To be applied and analyzed Methods used in Pressure Images
19	2025/1/25	Image compression techniques (2)	2lab 2luc	The learner will be able to To be applied and analyzed Methods used in Pressure Images
20	2025/2/1	Sound and Audio Basics	2lab 2luc	The student should be able to To

				understand the characteristics of Audio files
21	**2025/2/8**	Digitization of Sound	**2lab 2luc**	**The student should be able to understand how to represent Digitally Audio**
22	**2025/2/15**	Nyquist Theorem	**2lab 2luc**	**The student should be able to To understand Nikost's theory and its application**
23	**2025/2/22**	Synthetic Sound	**2lab 2luc**	**The student should be able to To understand the industrial voice and its representation**
24	**2025/3/1**	Quantization and transmission of audio	**2lab 2luc**	**The student should be able to To analyze the sound It distinguishes the characteristics of sound and how to transmit sound for the purpose of evaluation**
25	**2025/3/8**	Compression of Audio	**2lab 2luc**	**The student should be able to Provided that he applies the methods Used in compression audio files, as well as To analyze these methods It characterizes the characteristics of each One of**

				them for the purpose of evaluation
26	**2025/3/15**	Video Basics	**2lab 2luc**	**The student should be able to To understand the characteristics of Videos**
27	**2025/3/22**	Video Color Models	**2lab 2luc**	**The student should be able to To understand the color models of the video**
28	**2025/3/29**	Types of Video Signals	**2lab 2luc**	**The student should be able to However, the types of video signals**
29	**2025/4/5**	Video Compression	**2lab 2luc**	**The student should be able to Provided that he applies the methods Used in compression video files, as well as To analyze these methods It characterizes the characteristics of each One of them for the purpose of evaluation**
30	**2025/4/12**	Multimedia over networks	**2lab 2luc**	**The student should be able to To understand the basics Networks Multimedia**

Lecturer signature   **Head of Department Signature**