University/Academy: Arab Academy for Science and Technology & Maritime Transport
Faculty/Institute: College of Computing and Information Technology
Program: Information Systems

Form No. (12)
Course Specification

1- Course Data

Course Code: IS476	Course Title: **Multimedia Information Systems**	Academic Year/Level: 4 / 8
Specialization: Information Systems	No. of Instructional Units: 2 hrs lecture 2 hrs lab	**Lecture:**

2- Course Aim	This course discusses the past, present, and future of the theory and practice of multimedia information systems. We will explore the concepts and methods of the multimedia production cycle comprising the creation, description, retrieval, editing, management, distribution, and reuse of digital media. Students will gain theoretical background and practical experience to help them design, innovate, critique, and assess digital multimedia information systems.
3- Intended Learning Outcome:	
a- Knowledge and Understanding	**Students will be able to demonstrate knowledge of:** K13. Information systems, data and information management, enterprise architecture, IS project management, IT infrastructure, systems analysis and design, and IS strategies. K14. The principles and techniques of database management systems, management, data mining, geographical information systems, multimedia, application development, business process management, enterprise systems, human-computer interaction, object-oriented analysis and design, e-technologies, multimedia, image processing, information and infrastructures security and computer graphics techniques.
b- Intellectual Skills	**I10** Define traditional and nontraditional information systems problems, set goals towards solving them, and. observe results **I11** Perform comparisons between (methods, techniques...etc).**I13** **I14** Select the suitable tools, methods and techniques for modeling, analyzing IS, establishing criteria, and verify solutions. **I15** Identify a range of solutions and critically evaluate and justify proposed design solutions. **I16** Solve IS problems with pressing commercial, time, and industrial constraints.

c- Professional Skills	**By the end of the course the student will have the ability to:** **P15** Apply the principles of effective information acquisition, information management, organization, and information-retrieval to text, images, sound, and video. **P16** Apply the principles of human-computer interaction to the evaluation and construction of a wide range of materials including user interfaces, web pages, and multimedia systems.
d- General Skills	**Students will be able to:** **G1** Demonstrate the ability to make use of a range of learning resources and to manage one's own learning. **G7** Show the use of general computing facilities.
4- Course Content	Upon Completion of this course, students should be able to acquire the skills in the following table, related to the computing Knowledge Area (KA), Intellectual Skill (IS), Professional Skill (PS), and General Skill (GS): **# / CLO table below**

#	CLO
1	Understand the different properties of the audio system component.
2	Understand the concept and different techniques used to represent video.
3	Build a complete multimedia application that includes both audio and video.
4	Be familiar with several audio and video content editing techniques and software.

5- Teaching and Learning Methods	Lectures,Projects, Individual study & self-learning.
6- Teaching and Learning Methods for Students with Special Needs	• Students with special needs are requested to contact the college representative for special needs (currently Dr Hoda Mamdouh in room C504) • Consulting with lecturer during office hours. • Consulting with teaching assistant during office hours. • Private Sessions for redelivering the lecture contents. For handicapped accessibility, please refer to program specification.
7- Student Assessment:	
a- Procedures used:	Exams and Individual Projects
b- Schedule:	7th week exam 30% Project 10% 12th week exam 20% Final exam 40%

c- Weighing of Assessment:	7th week exam 30% Project 10% 12th week exam 20% Final exam 40%

8- List of References:

a- Course Notes	
b- Required Books (Textbooks)	- **Paisarn Muneesawang, Ling Guan, Multimedia Database Retrieval: A Human-Centered Approach, Springer, 2010.** - **David Feng, Multimedia Information Retrieval and Management, Springer, 2003.**
c- Recommended Books	
d- Periodicals, Web Sites, ..., etc.	-

Course Instructor:

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Head of Department:

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