

"حيث تصبح الرؤية واقعاً"
"When Vision Becomes Reality"

"عراقة وجودة"
Tradition and Quality

Brief course description- Course Plan Development and Updating Procedures\ Computer Science \ Multimedia Systems Department	QF01/0409-3.0E
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Faculty	Science & Information Technology	Department	Computer Science \ Multimedia Systems	Number of the course plan ()
Number of Major requirement courses		Date of plan approval		

This form is just for the major requirement courses

Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132121	3	Introduction to Multimedia	Introduction to IT

This course aims to make students acquainted with the fundamental concepts of multimedia and multimedia systems in emerging multimedia value added services. The course introduces the basic concepts and usage of Multimedia: Text, Images, Sound, Animation, and Video. Sampling, quantization, colors encoding, data compression algorithms, Hardware and Software issues are discussed.

Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132211	3	Human Computer Interaction	Introduction to Multimedia

Concepts of human-computer interaction, and applying these concepts to the design and implementation of multimedia systems. Efficient representation of multimedia data, including video, image, and audio, and how to deliver them over a variety of networks. Compression technologies and standards. Issues with sending multimedia over various network environments. Overview of architectural requirements for supporting multimedia communication.

Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132122	3	Computer Packages	Introduction to IT

This course will offer skill development in the use of software to develop storyboards and 2-dimensional animation including creating, importing and sequencing media elements to create multi-media presentations. Emphasis will be on conceptualization, creativity, and visual aesthetics. This course takes the students through various aspects of animation using a variety of 2-dimensional software. Developing concepts, storyboarding and production of several 2 dimensional animations will be accomplished.

Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132223	3	Multimedia Tools & Packages	Computer Packages

This course is designed to help you learn everything you need to create 3D content using 3ds Max. Throughout the course, students will be taught the basics of modeling, material creation, animation, and scene generation. Learn the capabilities of the interface, how to work efficiently, and how to apply toolset in the workplace. This course will take you past the basic level into an intermediate skill-set. Concepts of computer graphics, including vector graphics. Drawing 2D and 3D shapes and their transformations.

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Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132325	3	Animation	Multimedia Tools & Packages
<p>This course will offer skill development in the use of software to develop storyboards and 2-dimensional animation including creating, importing and sequencing media elements to create multi-media presentations. Emphasis will be on conceptualization, creativity, and visual aesthetics. This course takes the students through various aspects of animation using a variety of 2-dimensional software. Developing concepts, storyboarding and production of several 2 dimensional animations will be accomplished.</p>			
Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132326	3	Digital Audio	Introduction to Multimedia
<p>A basic audio course instructs students in the fundamentals of recording and sound-production techniques. Topics common to these audio engineering courses include the use of microphones, sound characteristics, acoustical principals and design objectives in audio projects. Instructors also discuss psychoacoustics, which has to do with how people perceive sound, and waveform physics, which describes how sound works.</p>			
Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132352	3	Digital Video	Computer Packages
<p>Digital video production is for budding movie-makers with an emphasis on experimentation in the use of the video medium. The primary goal of the course is to serve as a foundation for further exploration in digital video artwork and storytelling. Students will write, direct, act, shoot, and edit short videos, with beginning and intermediate instruction. We will cover the fundamentals of shooting, sound, lighting, and editing, among other production issues. Students will form production teams and put these techniques into practice.</p>			
Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132331	3	Image Processing	Computer Packages
<p>This course is an introduction to the fundamental concepts and techniques in basic digital image processing and their applications to solve real life problems. The topics covered include Digital Image Fundamentals, Image Transforms, Image Enhancement, Restoration and Compression, Morphological Image Processing, Nonlinear Image Processing, and Image Analysis. Application examples are also included. The course will comprise of comprehensive understanding of signals, signal processing, digital imagery and digital image processing. Upon completion of this course, students will be familiar with basic image processing techniques for solving real problems.</p>			
Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132329	3	Cinematic & TV Production	Digital Video
<p>In this course designed for videographers, graphic artists, and animators with intermediate-level Effects</p>			

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experience, you will learn how to incorporate text, graphics, and effects to your movies. Upon completion of this course, you will have an excellent understanding of the menu and tools in After Effects and be able to perform work with a high level of efficiency.

Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132451	3	Virtual Reality	Digital Video

This course provides an introduction to Virtual Reality as a mini-course that introduces students to the basics of building virtual reality worlds using HTML and the A-Frame JavaScript Library. Through this course, students will build their own virtual reality worlds that are compatible with VR devices, including smartphone VR headsets.

Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132254	3	Digital Media & Social Networks	Introduction to IT

This course aims to introduce different web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view & traverse their list of connections and those made by others within the system. In addition it gives a clear vision about the Digital media as a medium of communication which uses digital content. Also, it introduce the electronic billboards and Ads as part of Digital media, and define how it can be used as one way or two way communication.

Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132312	3	Multimedia & e-Learning	Multimedia Tools & Packages

Design, analysis, and implementation of multimedia software, primarily for e-learning courses or training. It takes into account the requirements of diverse groups of learners and settings. Operating and utilizing multimedia software. Image manipulation and digital image construction for use on the internet or in multimedia applications.

Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132433	3	Color Spectrum	Introduction to Multimedia

The goal of this course is to introduce students to ideas and techniques from color management and representation that are widely used in Computer Science. Students should learn coloring concept and digital representation for colors. This course should teach student most basics of color management.

Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132328	3	Computer Graphics	Image Processing

This course introduce the concepts of computer graphics, including vector graphics. Drawing 2D and 3D shapes and their transformations. It also highlights the use of data structures in image representation. Common algorithms applied to multimedia systems. Designing, applying, and analyzing multimedia algorithms.

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Course number	Credit hours	Title of the course	Prerequisite-co-requisite
0132353	3	Game Design	Multimedia Tools & Packages
<p>This course is an introduction to Unity covering basic techniques for creating games in Unity. The course will cover all the basic techniques needed to create games in Unity. Development of programming skills using software environment of a game engine and its scripting language. 3D concepts for game play, modeling, and programming. Roles needed in software development team. Contrast creation of original 3D object models for game world with incorporation of pre-created generic models.</p>			

Approved by department council		Date of approval	
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