

# Course Specification

(Bachelor)

Course Title: Multimedia & Computer Graphics

Course Code: ١٣٤٢-EMKT

Program: Electronic Marketing (intermediate diploma)

Department: Computer and Information systems Unit

College: Applied College

Institution: King Khalid University

Version: ٤

Last Revision Date: April 2024

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## A. General information about the course:

### 1. Course Identification

1. Credit hours: ( 3 Hours... )

#### 2. Course type

A.  University  College  Department  Track  Others  
B.  Required  Elective

3. Level/year at which this course is offered: ( 3rd Level / 2nd Year )

#### 4. Course general Description:

Graphics, animation and video software are rapidly growing sector of business technology. Graphics such as cartoons, drawings and photographs are used to enhance presentations, publications and Web pages. Students will learn to use graphics, animation and video in a variety of applications. This course includes individual and integrated coverage of all related topics of multimedia.

NA

5. Pre-requirements for this course (if any): 1413-CIS

NA

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

NA

#### 7. Course Main Objective(s):

- Course provide graphic and multimedia overview.
- Provide image, video, audio and 2D/3D graphics processing techniques.
- This course is designed to teach the students overall understanding of Multimedia fields, systems and applications.
- Course provides the fundamentals knowledge about the components of multimedia, media formats, compression standards.
- Knowledge of integrating various media types using authoring tools.

### 3. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	-	-
2	E-learning	-	-
3	Hybrid	45	100%
	• Traditional classroom	31	70%
	• E-learning	14	30%
4	Distance learning	-	-

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### 3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	35
2.	Laboratory/Studio	10
3.	Field	
4.	Tutorial	
5.	Others (specify)	
<b>Total</b>		<b>45</b>

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

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	<b>Knowledge and understanding</b>			
1.1	Define Graphics and multimedia fundamentals.	k1	Lecture	Quiz/Assignments
1.2	Understand the Inter-media and Intra-media issues for authoring the multimedia contents.	k2	Lecture	Quiz/Assignments
1.3	Describe various computer graphics and multimedia tools.	k1, k2	Lecture	Quiz/Assignments
2.0	<b>Skills</b>			
2.1	Apply different drawing algorithms.	s2	Lab	Quiz/Assignments
2.2	Justify the compression necessity and compare the State-of-the-art compression techniques.	s3	Lab/lecture	Quiz/Assignments
2.3	Compare and Apply illumination models & their Effects.	s1	Lab/lecture	Quiz/Assignments
2.4	Compose 2D and 3D transformation.	s4	Lab	Quiz/Assignments
3.0	<b>Values, autonomy, and responsibility</b>			
	Use OpenGL, MATLAB & Macromedia Flash to practice theoretical concepts	v1	Lab	Assignments
	Use the impact of multimedia including graphics dissemination with effective skills	v2	Lab	Assignments

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### C. Course Content

No	List of Topics	Contact Hours
1.	Graphics Overview	2
2.	Creating Special Effects	2
3	Animations and Enhancing Animations	4
4	Action Scripts	4
5	Drawing Algorithms, Illuminations Models, 2D, 3D Transformations	6
6	Introduction to Multimedia, Media Representation & Media Formats	4
7	Multimedia Authoring	4
8	Overview of Compression	4
<b>LAB Topics</b>		
1	Introduction to Flash, knowing your workspace, Working with text	4
2	Working with Pictures	4
3	Motion Tween and Shape Tween	2
4	Combining effects of Motion and Shape Tween	2
5	Action Script	4
6	MATLAN introduction, Drawing Algorithms of line circle, ellipse,	6
7	Open GL	6
8	2D, 3D Transformations	2
		2
<b>Total</b>		<b>60</b>

### D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1	Midterm Examination - I	7	10
2	Practical Examination – I	9	15
3	Midterm Examination – II	12	10
4	Practical Examination – II	14	15
5	Assignments	After every Chapter	5
6	Quizzes	After every Chapter	5
7	Final Examination	16	40
	<b>Total</b>		<b>100</b>

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\*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	<b>Computer Graphics and Multimedia: Applications, Problems and Solutions</b> ISBN-13: 978-1591402664
	<ul style="list-style-type: none"> <li>▪ <b>Graphics and Animation Basics by Weixel and Morse</b>  <b>Fundamentals of Computer Graphics 4th Edition</b>                      ISBN-13: 978-1482229394</li> </ul>
Supportive References	
Electronic Materials	<ul style="list-style-type: none"> <li>▪ <a href="http://www.cengage.co.uk">http://www.cengage.co.uk</a> <a href="http://elc.kku.edu.sa">http://elc.kku.edu.sa</a></li> <li>▪ <a href="http://www.tutorialspoint.com/Multimedia">www.tutorialspoint.com/Multimedia</a></li> <li>▪ <a href="http://www.course.com/Graphics">www.course.com/Graphics</a></li> </ul>
Other Learning Materials	

### 2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	<b>A lecture hall that can accommodate 40 students, equipped with a Smart Board and Data Show</b>
Technology equipment (projector, smart board, software)	<ul style="list-style-type: none"> <li>• <b>Macromedia Flash</b></li> <li>• <b>Adobe Photoshop</b></li> <li>• <b>Media editing tools</b></li> <li>• <b>Coral Draw</b></li> <li>• <b>Maya</b></li> <li>• <b>SVG(Scalar Vector Graphics)</b></li> </ul>
Other equipment (depending on the nature of the specialty)	

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(depending on the nature of the specialty)



## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect
Effectiveness of students assessment	Course Teacher, Quality Unit	Direct
Quality of learning resources	HOD, Quality Unit	Direct/Indirect
The extent to which CLOs have been achieved	Course Teacher, Quality Unit	Direct/Indirect
Other		

**Assessors** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

## G. Specification Approval

لجنة الخطط والمناهج بالكلية التطبيقية	جهة الاعتماد
٤٥/٥/١	رقم الجلسة
١٤٤٥/١٢/٣ هـ	تاريخ الجلسة

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