UNIVERSITI TEKNOLOGI MARA
COM151: FUNDAMENTALS OF MULTIMEDIA SYSTEM

Course Name (English)	FUNDAMENTALS OF MULTIMEDIA SYSTEM APPROVED
Course Code	COM151

MQF Credit	3

Course Description	This course is to introduce the fundamental concepts and principles of Multimedia system. Student will expose themselves theoretically and practically into various components of Multimedia such as text, graphics (and images), audio and video. Throughout the course, student will explore and experience each stage in Multimedia project development, and basic skill in the creation of the four Multimedia components. Upon completion of this course, student will be able to develop their own Multimedia project and able to understand the various types of Multimedia projects and delivery systems available in the current practices.

Transferable Skills	Explain the fundamental concepts and principles of Multimedia system. Evaluate existing Multimedia system available in the public space. Develop a Multimedia package suitable for the proposed target audience.

Teaching Methodologies	Lectures, Lab Work, Field Trip, Tutorial

CLO		
	CLO1	Student will be able to explain the fundamental concepts and principles of Multimedia system.
	CLO2	Student will be able to evaluate existing Multimedia system available in the public space
	CLO3	Student will be able to develop a Multimedia package suitable for the proposed target audience

Pre-Requisite Courses	No course recommendations

Topics
1. Introduction, Purposes and Application of Multimedia 1.1) What is Multimedia? 1.2) A Concise History of Multimedia 1.3) Combining Content from Various Media 1.4) Linear vs. Interactive Multimedia 1.5) Analog-to-Digital Evolution 1.6) Why and How Multimedia is Used 1.7) Planning Stages and Development Process 1.8) Tools for Creating and Preparing Media 1.9) Making It Functional and Interactive 1.10) Finalizing, Testing and Delivering Multimedia
2. Graphics and Images 2.1) The Role of Graphics and Images in Multimedia 2.2) Vector Graphic vs Raster Images 2.3) Scanning and Resolution 2.4) Digital Photography 2.5) Clip Art and Stock Images 2.6) File Format for Screen Display 2.7) Colour Theory: Pigment vs. Pixels 2.8) Lab Work: Adding and Editing Images for Multimedia Project

3. Text and Typography
3.1) Text Defined
3.2) Typing, Texting and Emailing
3.3) Typography
3.4) Preparing Text for The Screen: Amount and Legibility
3.5) Lab Work: Adding and Editing Text in Multimedia Project
3.6) Lab Work: Creating Navigation System for Multimedia Project

4. 2D and 3D Animation
4.1) Animation in Multimedia
4.2) Kinds of Animation
4.3) Traditional Animation Overview
4.4) Concept Development and Storyboarding
4.5) Differences Between 2D and 3D Computer Animation
4.6) Animation Files and Formats
4.7) Lab Work: Adding and Editing Animation for Multimedia Project

5. Audio: Music and Sound Effects
5.1) Audio Fundamentals
5.2) Recording vs. Importing Sound
5.3) MIDI and Digital Music
5.4) Editing and Manipulating Audio Tracks
5.5) Audio File Formats and Compression Schemes
5.6) Using Sound in Multimedia Project and for the Web
5.7) Lab Work: Adding and Editing Audio for Multimedia Project

6. Video: Recording and Manipulating Moving Images
6.1) Video Mechanics
6.2) Video in Multimedia
6.3) Analog vs. Digital Video
6.4) Shooting or Obtaining Video
6.5) Display Standards and Playbacks Options
6.6) Editing and Manipulating Video
6.7) Video Compression Schemes and File Formats
6.8) Using Video in Multimedia Projects
6.9) Lab Work: Adding and Editing Video for Multimedia Project

7. Authoring for Multimedia Functionality
7.1) Programming and Scripting to Create Interactive Environments
7.2) Tools for Authoring
7.3) Web Authoring with HTML
7.4) Interactive Design
7.5) Lab Work: Multimedia Project Development 1

8. Hardware and Software for Multimedia System
8.1) Multimedia Project Equipment Setup
8.2) Input Devices
8.3) Output: Displays and Screens
8.4) Data Storage
8.5) Computing Platforms
8.6) Multimedia Software Options
8.7) Vector Graphics: Illustration and Line Arts
8.8) Digital Imaging: Photography and Bitmapped Images
8.9) Page Layout and Typography
8.10) Animation and Motion Graphics
8.11) Audio and Video Recording and Editing
8.12) Authoring and Web Design
8.13) Presentation
8.14) Media Players
8.15) Lab Work: Multimedia Project Development 2

9. Multimedia Projects & Delivery System
9.1) Categorizing Multimedia Uses
9.2) Presentations
9.3) Video and Animation
9.4) Educational and Training Programs
9.5) Web Sites
9.6) Apps and Mini Software Programs
9.7) Video Games
9.8) Noteworthy Gadgets and Devices
9.9) Multimedia Product Maintenance
9.10) Troubleshooting and User Testing
9.11) Disc vs. Web Preparation
9.12) Presentation Options
9.13) Delivering Multimedia
9.14) Lab Work: Multimedia Project Development 3

10. Multimedia Project Pre-Production 1 10.1) Multimedia Project Pre-Production 1
11. Multimedia Project Pre-Production 2 11.1) Multimedia Projecy Pre-Production 2
12. Multimedia Project Production 12.1) Multimedia Project Production
13. Multimedia Project Post-Production 13.1) Multimedia Project Post-Production
14. Multimedia Project 14.1) Multimedia Project

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Multimedia system critique	20%	CLO2
	Group Project	Final Group Project	50%	CLO3
	Test	Online Test	30%	CLO1

Reading List	Recommended Text	• Jennifer Coleman Dowling 2011, *Multimedia Demystified*, 1 Ed., McGraw-Hill New York [ISBN: 978-007177064]
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	