MULTIMEDIA UNIVERSITY®

COURSE INFORMATION

1 .	**Name of Course**	Multimedia Applications
2 .	**Course Code**	DMA5018
3 .	**Type of Course** **(e.g. : Core, major, elective etc.)**	Elective
4 .	**Synopsis**	Multimedia application applies interactive computer elements, such as graphics, text, video, sound, and animation, to deliver a message. Student will learn the design techniques using multimedia technology and be encouraged to develop their own creative contents applications.
5 .	**Version** **(State the date of theSenate's approval - previous and the current approval date)**	Current: ADC Oct 2017 Previous: ADC June 2017
6 .	**Name(s) of Academic Staff**	Rashidah Ahmad , Yap Hui Yen
7 .	**Semester and Year Offered**	Trimester 1, Year 2
8 .	**Credit Value**	3
9 .	**Pre-Requisite**	-
10 .	**Objective of the course in the programme:**	
	To introduce basic principles and current technologies of Multimedia systems and gain hands-on experience in this area. Issues in effectively representing, processing, and retrieving multimedia data such as sound and music, graphics, image and video will be addressed.	
11 .	**Justification for including the course in the programme:**	
	This subject will be useful for students who are interested to use multimedia software and tools for their Final Year Projects.	
14 .	**Transferable Skills:**	
	Practical skill and problem solving	
15 .	**Distribution of Student Learning Time (SLT)**	

Course Content Outline	**CLO	Teaching and Learning Activities – Guided Learning (F2F)* *L	*T	*P	*O	Guided Learning (NF2F)*	Independent Learning (NF2F)*	Total SLT
1 Topic 1: Introduction to Multimedia Multimedia Terms – Multimedia, Integration, Interactive, Nonlinear vs. linear content, Benefits of Using Multimedia in Software, Problems with Multimedia, where to use multimedia, Multimedia in Business, Multimedia in schools Multimedia at Home, Multimedia in Public Places, Virtual Reality, Multimedia Delivery Method– CD-ROM, DVD, Web Pages	**CLO1**	2					2	4
2 Topic 2: Multimedia Hardware and Software Hardware - Apple vs. Windows Operating System, Networking, Memory and Storage Devices, Input Devices, Output Devices Software - Text editing and Word Processing Tools, OCR Software, Painting and Drawing Tools, 3D Modeling and Animation tools, Image Editing Tools, Sound Editing Tool, Authoring System, Types of Authoring Tools, Choosing an Authoring Tool	**CLO1**	2					4	6
3 Topic 3: Designing and Producing Designing the structure – Navigation and navigation map, Structure for multimedia projects – linear, hierarchical, nonlinear & composite, Structural Depth, Storyboard, Designing the user interface – Graphical Approaches, Things to Avoid	**CLO1**	2					4	6
4 Topic 4: Multimedia Development Stages Four Basic Stages – Planning & Costing, Designing & Producing, Testing, Delivering, Planning & Costing – Idea Analysis, Scope, Project Objectives, Target Audiences, Estimate the Cost & Timeline, Building A Team, Gantt Chart, Proposal, Testing – Alpha Testing & Beta Testing	**CLO1**	4					4	8
5 Topic 5: Text The importance of text, Font & Typefaces, Font Styles, Attributes of Fonts - Serif vs. San Serif, Using text in Multimedia Presentations, Font editing & Design tools, Hypermedia & Hypertext	**CLO1**	2					3	5

6	**Topic 6: Images** Bitmaps and Vector Drawn, Bitmap sources and software, how vector Drawing Works, Vector-Drawn Objects vs. Bitmaps, Converting Between Bitmap and Drawn Images, 3D Drawing and Rendering, Limitations and capabilities of Bitmap, Vector and 3D Drawing, Colour – Understanding Natural Light and Colour, Computerized Colour, Colour Palettes, Dithering, Image File Formats	**CLO1**	4					4	8
7	**Topic 7: Animation** Definition, Principles of Animation, Animation Techniques, 2D Animation - Keyframes & Tweening, 3D Animation – Kinematics, Inverse Kinematics, Morphing, Animation File Formats	**CLO1**	2					2	4
8	**Topic 8: Sound** Components and Measurements of Sound, Digital Audio – Sampling rates and Sampling sizes most often used in Multimedia, Making Digital Audio Files – Editing Digital Recordings Process - Audacity, File Size vs. Quality, MIDI Audio, MIDI vs. Digital Audio, Multimedia System Sounds, Audio File Formats, Adding Sound to Multimedia Project, Space Considerations, Audio Recording, Audio CDs, Sound for Mobile, Sound for Internet, Copyright Issues	**CLO1**	2					2	4
9	**Topic 9: Video** Implications of using video in multimedia, How Video Works and Displayed, Analog Video – Component, S-Video, Composite, Analog Broadcast video standards, Digital Video – HDTV, Displays, Video Data Size, Video File Formats and Codec, Shooting and Editing Video, Tips for creating good titles and text in Video, Nonlinear Editing (NLE) software – iMovie	**CLO1**	2					2	4
10	**Topic 10: Internet and Multimedia** The origin of Internet, Internet Services, Multimedia on Web, Tools for the World Wide Web	**CLO1**	2					2	4
11	**Lab 1: Getting to Know Photoshop** Recognize Adobe Photoshop CS6 working environments, identify each features in the Photoshop toolbox, Start a new Photoshop document and file formats, Modify using basic editing skills - Selection, Crop, and Slice tools.	**CLO2, CLO3**			2			2	4
12	**Lab 2: Image Editing and Retouching Skills** Use the editing tools to alter image /photo, Edit and fix photos by sharpening, enhancing and correcting various distortion problems that occur with many photos, manipulate images by using Retouch and Paint tools, Arrange and work with layered image, Various effects in Photoshop Filters and Layer Effects.	**CLO2, CLO3**			4			4	8
13	**Lab 3: Getting to Know Flash** Creating and Setting document properties, Adding Text, Graphics Symbol, Layers, Drawing, Resizing, Rotating and Align objects.	**CLO2, CLO3**			2			2	4
14	**Lab 4: Understanding Keyframes and Tweening** Creating Movieclip symbols, keyframes, Tweening – Animating the Wheel and Train, Importing Images and Tracing Bitmap image to Vector.	**CLO2, CLO3**			2			2	4
15	**Lab 5: Creating Button, Inserting Sound and Scene** Creating rollover button with text, Adding Sound to Button and Movieclip, adding filter effects (stroke for text), Inserting new scene in FLA file – creating bouncing ball and masking effects in new scene.	**CLO2, CLO3**			2			2	4
16	**Lab 6. ActionScript and Publishing** ActionScript Programming 2.0 vs. 3.0, Play and Stop a movie clip, Control Sound, Linking, Publishing – Modifying Projectors with FSCommands, Creating Projectors.	**CLO2, CLO3**			2			2	4
17	**Lab 7: Getting to Know Audacity** Audacity Interface and Environment	**CLO2, CLO3**			2			2	4
18	**Lab 8: Sound Recording Using Audacity** Recording, Editing, Tempo, Exporting	**CLO2, CLO3**			2			2	4
								Total SLT	**69**
	SUMMATIVE ASSESSMENT								

	1. Continuous Assessment	Percentage %	Total SLT	
	Test	15%	8	
	Lab Exercise	10%	12	
	Quiz	10%	3	
	Project	15%	10	
		Total SLT for Continuous Assessment	**33**	
	2. Final Assessment	**Percentage %**	**Total SLT**	
			F2F	**ILT**
	Final Exam	50%	2	16
		Total SLT for Final Assessment (F2F + NF2F)	**18**	
	Grand Total	**100%**	**120**	

****Indicate the CLO based on the CLO's numbering in Item 12.**
***L= Lecture, *T= Tutorial, *P= Practical, *O= Others, F2F*= Face to Face, NF2F*= Non Face to Face**

16 . **Identify Special Requirement to Deliver the Course (e.g., software, nursery, computer lab, simulation room):**
Computer Lab for Lab Session (Adobe Photoshop, Adobe Flash, Audacity or any tools suitable)

17 . **Main References:**
Vaughan, Tay, Multimedia: Making it Work, Ninth Edition, McGraw Hill, 2014

18 . **Additional References:**
Adobe, Adobe Flash Professional CS6 –Classroom in a Book, 2012, Steve Johnson, Perspection, Inc., Adobe Photoshop CS6 on Demand, Que Publishing, 2012