Teaching Plan

FACULTY OF INFORMATION & COMMUNICATION TECHNOLOGY UNIVERSITI TEKNIKAL MALAYSIA MELAKA

MULTIMEDIA SYSTEM

DITM 2113	SEMESTER 1	SESI 2020/2021

DITM 2113 MULTIMEDIA SYSTEM [3, 2, 2]
TYPE OF COURSE : K
EDITION : 6
UPDATED : 05-10-2020

1.0 LEARNING OUTCOMES

At the end of the lesson, the student should be able to:

a) Explain the core concept of multimedia elements (C2).
b) Practice problem solving skills for multimedia project development (A2).
c) Construct applications by multimedia elements according to industrial trends (P3).

2.0 SYNOPSIS

This subject prepares students with the basic concept of multimedia, technology and the importance of multimedia application. It covers the introduction to multimedia elements such as Text, Graphic, Audio, Animation and Video include 2D / 3D graphic and authoring, multimedia integration and multimedia application development. During lab sessions, students will be introduced to several tools for selected media element and authoring software for media integration. In addition, students will be trained for practical preparation of still image, simple animation, sound and effectively apply it to multimedia project. Students also will be exposed to teamwork, leadership, problem-solving and communication skills while performing their various tasks and project. Active Cooperative Learning (ACL) approach will be used to enhance students capability such as competency, attitude, knowledge and communication skills.

3.0 PRE-REQUISITE

None

4.0 LAB AND PRACTICAL

The use of Adobe Photoshop, Adobe Animate, Adobe Illustrator, Adobe Audition and Adobe Premier, for creativity development.

5.0 REFERENCES

[1] Vaughan, T., (2014), *Multimedia: Making It Work 9th Edition,* McGraw-Hill Osborne Media. ISBN-13: 978-0071832885.

[2] Costello, V., (2017), *Multimedia Foundation: Core Concepts for Digital Design 2nd Edition,* Routledge New York 2017. ISBN-13: 978-0415740036.

[3] Farah Nadia Azman, Norazlin Mohammed, Sazilah Salam., (2018), *Multimedia System*, University Technical Malaysia Melaka, Module.

[4] Savage T.M. and Karla E. Vogel (2013), An Introduction to Digital Multimedia

[5] MOOC, UTeM Open Learning. (https://www.openlearning.com/utemmooc).

6.0 COURSE IMPLEMENTATION

a. Lecture: 2 hrs per week for 14 weeks (Total = 28 hrs)

b. Lab: 2 hrs per week for 14 weeks (Total = 28 hrs)

7.0 COURSE EVALUATION

ASSESSMENT METHOD	LO 1	LO 2	LO 3	Scheme/Rubric/ Guideline
Group Project (1) = 15%		P1 (10%)	P1 (5%)	Project Guideline
Assignment (3) = 15%		A1-2 (10%)	A3 (5%)	Lab Module
Lab Test (1) = 10%		LT1 (10%)		Lab Test Guideline
Quizzes (2) = 10%	Q1-Q2 (10%)			Quizzes questions
ACL (1) = 5%			ACL1 (5%)	Ulearn/Mooc Note
Mid Term (1) = 15%	MT1 (15%)			Midterm Question
Final (1) = 30%	F1 (30%)			Final Question
Total	**55%**	**30%**	**15%**	

8.0 STUDENT LEARNING TIME

SESSION	TYPE	LEARNING ACTIVITIES	(a) Time (Hours)	(b) Frequencies	Total (a) x (b)
FACE TO FACE LEARNING	LCL	LECTURE	2	8	16
	SCL	TUTORIAL	2	0	0
	SCL	LABORATORY PRACTISE	2	14	28
	SCL	ASSIGNMENT	2	0	0
	SCL	PROJECT	1	1	1
	SCL	PROBLEM BASED LEARNING	2	1	2
	SCL	OTHERS	2	0	0
INDEPENDENT LEARNING	SDL	ASSIGNMENT	2	3	6
	SDL	PROJECT	4	1	4
	SDL	PROBLEM BASED LEARNING	0	0	0
	SDL	FINAL EXAMINATION	2	1	2
	SDL	TESTS (MID TERM)	1.5	0	0
	SDL	ASSESSMENT REVISION			7
	SDL	CLASS PREPARATION			6
ONLINE BLENDED	**SDL**	**BASED ON 40% OVERALL BLENDED FOR THE COURSE**			
TnL Materials (40%)		Lecture Notes, Lab Notes, Tutorial, Videos	3.5	6	19.5
TnL Activities (40%)		Forum, Discussion, PBL Activities	3.5	6	19.5
Assessment (20%)		Quiz, Assignment, Midterm, Labtest, etc	1.5	6	9

Total Face to Face Learning (FFL)	47
Total Independent Learning (IL)	25
Total Online Learning (OL)	48
Total SLT (FFL+IL+OL)	120
Total Equivalent Credit Hours	3.0
(TOTAL SLT/40)	

9.0 DETAILED SYLLABUS AND TEACHING PLAN

Week	Contents	References	Delivery Method
1	**THE CONCEPT OF MULTIMEDIA** ▪ The definition of Multimedia and concept web base. ▪ Multimedia technologies and terminology. ▪ Type of multimedia system. ▪ Introduction to Hypertext and Hypermedia ▪ Application of Multimedia in Education, Medical, Entertainment, Business and Industrial, Government and Encyclopaedia Resources Sector. ▪ The Advantages and Disadvantages of Multimedia. **Lab 1** Introduction to Multimedia Production	Online Source https://www.openlearning.com/courses/multimedia-system/[5], [1] [3]	Lecture Lab
2	**THE MULTIMEDIA TECHNOLOGY** ▪ Multimedia System Components ▪ The Hardware System include VR tools. ▪ Software of Multimedia System ▪ Multimedia production categories ▪ Multimedia delivery system ▪ The Multimedia Storage and Platform ▪ The Windows Platform ▪ The Macintosh Platform ▪ Windows VS Macintosh **Lab 2** Raster Image Editing	[1] [3]	**BLENDED LEARNING** Lab
3	**INTRODUCTION TO TEXT** ▪ Introduction to Font and Typography ▪ History of text ▪ Mono spaced versus proportional ▪ Serif versus Sans Serif ▪ Font weight, shape and terminology ▪ Using text in Multimedia ▪ Font editing and design tools **Lab 3** Photo Manipulation	[1] [3]	Lecture Lab
4	**IMAGES** ▪ Introduction to graphics and images ▪ Graphics application ▪ Types of graphics ▪ Bitmap versus vector ▪ Colour, Image peripheral resolution ▪ Colour Palette, Bitmap Images and Vector Images ▪ File Format and File Format Conversion ▪ Image Resources and Input **Lab 4** Working with Vector Graphics	[1] [3]	Lecture Lab

5	**IMAGES** ▪ Anti Aliasing ▪ Image Compression ▪ Lossless ▪ Lossy ▪ 3D Graphic Categories ▪ Steps to create 3D Graphic **Lab 5** Drawing & Illustrating	[1] [3]	**BLENDED LEARNING** Lab
6	**SOUND** ▪ Definition for Sound in Multimedia Environment ▪ Principles of sound ▪ Audio File Formats ▪ Midi versus Digital Audio ▪ Audio Concepts - Sounds waves - Frequency - Amplitude - Resistance - Phase - Concept of Sound - Frequency and Pitch - Amplitude and Loudness **Lab 6** Audio Editing	[1] [3]	Lecture Lab
7	**VIDEO** ▪ Video versus other media ▪ Video in Multimedia Environment ▪ Analog versus Digital Media ▪ Generational Loss ▪ Advantages of Digital video ▪ File size for digital video ▪ Broadcast versus Direct Video ▪ Video formatting **Lab 7** Video Shooting	[1]	**BLENDED LEARNING** **ONLINE MID SEMESTER EXAM**
8	MIDTERM BREAK		
9	**VIDEO** ▪ Video Standards - NTSC (HD & HDTV) - PAL (HD & HDTV) - SECAM (HD & HDTV) ▪ Analog versus Digital Transmission ▪ Digital Video Format ▪ Mpeg standards ▪ Digital TV ▪ Video Compression ▪ Lossless versus Lossy Compression **Lab 8** Video Composition	[1] [3]	Lecture Lab

10	**ANIMATION** ▪ Introduction to Animation ▪ Principles of Animation ▪ Animation Techniques - Traditional Animation - Key frame, Rotas coping, Flip Book - Animation - Computer Based Animation - Frame Based Animation - Cell Based Animation - Object animation - Procedural Animation - Representational Animation - Stochastic and Behavioural **Lab 9** Storyboard	[1]	Lecture Lab
11	**ANIMATION** ▪ 3D Animation - Storyboard - Modelling Process - Animation - 12 Principles Animation - Scene Layout Setup ▪ The Camera - Lighting and Shading ▪ Surface Textures ▪ Reflection ▪ Rendering - Integrate, Run and Execute **Lab 10** Animation Production	[1] [3]	Lecture Lab
12	**INTERACTIVITY AND SCREEN DESIGN** ▪ Screen versus paper ▪ Screen components ▪ Screen design - Content - Polarity - Text - Colour - Images - Layout ▪ Screen Layout Basics ▪ Design Issues ▪ Navigation **Lab 11** Lab Test	[1]	**BLENDED LEARNING** Lab Test

13	**MULTIMEDIA DEVELOPMENT MODEL** ▪ Select a topic for multimedia project ▪ Multimedia application project planning ▪ Media collection phase ▪ Creating storyboard ▪ Develop multimedia project ▪ Testing **Lab 12** Interactive Application – Part 1	[1]	Lecture Lab
14	**MULTIMEDIA DEVELOPMENT TEAM** ▪ Team members in Multimedia Production ▪ Responsibility of each team member ▪ Assembling a Multimedia Production Team **Lab 13** Interactive Application – Part 2	[1]	**BLENDED LEARNING** Lab
15	**FUTURE OF MULTIMEDIA** ▪ Today multimedia trends ▪ Multimedia infra and devices ▪ Potential multimedia area ▪ Future multimedia technology & trends **Lab 14** Group Presentation	[1]	**BLENDED LEARNING** Lab
16	**REVISION WEEK**		

10.0 MATRIX OF LEARNING OUTCOMES

SUBJECT vs PROGRAM OUTCOME (PO)

Subject	PROGRAM OUTCOME (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	
DITM 2113	X			X				X	

LEARNING OUTCOME (LO)

LO1	Explain the core concept of multimedia elements (C2).
LO2	Practice problem solving skills for multimedia project development (A2).
LO3	Construct applications by multimedia elements according to industrial trends (P3).

LEARNING OUTCOME (LO) vs PROGRAM OUTCOME (PO)

LO	PROGRAM OUTCOME (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	
LO1	X								
LO2				X					
LO3								X	

SUBJECT vs SOFT SKILLS

Subject	SOFT SKILLS																							
	communication skill					critical thinking & problem solving					team work			lifelong learning			entrepreneurship skills			ethics&moral professionalism			leadership skills		
	CS1	CS2	CS3	CS4	CS5	CTPS1	CTPS2	CTPS3	CTPS4	CTPS5	TS1	TS2	TS3	LL1	LL2	LL3	ES1	ES2	ES3	EM1	EM2	EM3	LS1	LS2	LS3
DITM 2113								X							X									

LEARNING OUTCOME (LO) vs SOFT SKILLS

LO	SOFT SKILLS																							
	communication skill					critical thinking & problem solving					team work			lifelong learning			entrepreneurship skills			ethics & moral professionalism			leadership skills		
	CS1	CS2	CS3	CS4	CS5	CTPS1	CTPS2	CTPS3	CTPS4	CTPS5	TS1	TS2	TS3	LL1	LL2	LL3	ES1	ES2	ES3	EM1	EM2	EM3	LS1	LS2	LS3
LO1																								
LO2								X																
LO3															X									

SUBJECT vs TAXONOMY

Subject	Taxonomy																
	Affective					Cognitive						Psychomotor						
	A1	A2	A3	A4	A5	C1	C2	C3	C4	C5	C6	P1	P2	P3	P4	P5	P6	P7
DITM 2113		X					X							X				

LEARNING OUTCOME (LO) vs TAXONOMY

LO	Taxonomy																	
	Affective					Cognitive						Psychomotor						
	A1	A2	A3	A4	A5	C1	C2	C3	C4	C5	C6	P1	P2	P3	P4	P5	P6	P7
LO1							X											
LO2														X				
LO3		X																

TEACHING PLAN APPROVAL

Prepared by;

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Name: Sarni Suhaila Rahim

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Date: _____

Approved by;

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Dean/Deputy Dean (Academic)/HOD

Stamp:

Date: _____

TEACHING PLAN IMPLEMENTATION (MID SEMESTER BREAK)

Comment :

Checked by;

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Dean/Deputy Dean (Academic)/HOD

Stamp :

Date: _____

TEACHING PLAN IMPLEMENTATION (WEEK 16)

Comment :

Checked by;

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Dean/Deputy Dean (Academic)/HOD

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Date: _____