

SM1103A: INTRODUCTION TO MEDIA COMPUTING

Effective Term

Semester A 2022/23

Part I Course Overview

Course Title

Introduction to Media Computing

Subject Code

SM - School of Creative Media

Course Number

1103A

Academic Unit

School of Creative Media (SM)

College/School

School of Creative Media (SM)

Course Duration

One Semester

Credit Units

3

Level

B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

CS1103B Media Computing

Part II Course Details

Abstract

This course will teach fundamental programming concepts via creative exercises and small projects. Toward this end, students will explore the concepts of **variables**, **sequential programming**, **loops**, **conditionals**, **arrays**, **functions** with the programming of multimedia, such as image, audio, video, animation, and interactivity.

Course Intended Learning Outcomes (CILOs)

CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Understand fundamental procedural programming concepts.	x	x	
2	Apply simple multimedia programming to handle image, audio and video.	x	x	x
3	Develop basic user interactions through mouse and keyboard events.	x	x	x
4	Solve problems independently by finding resources, breaking down problems into sub-problems, and debugging.		x	x

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Teaching and Learning Activities (TLAs)

TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lectures/Workshops	All CILOs will be introduced, explained, discussed and demonstrated through lectures. Online resources will also be given for out-of-classroom reading and learning	1, 2, 3, 4

2	Workshop Exercises	The exercises will give students hands-on experience on computer programming and exploring media computing technology. Students will be expected to actively contribute to class discussions, and complete weekly programming exercises.	2, 3, 4	
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Assessment Tasks / Activities (ATs)

ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Assignments/Quizzes	1, 2, 3, 4	100

Continuous Assessment (%)

100

Examination (%)

0

Assessment Rubrics (AR)**Assessment Task**

1. Quiz

Criterion

ABILITY to UNDERSTAND and APPLY fundamental Programming concepts to the context of media computing

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

2. Assignment

Criterion

- ABILITY to APPLY learnt knowledge for creative media
- CAPACITY for knowledge and creativity in applying and implementing media computing technologies

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Additional Information for AR

All A+/A/A- grade assignment should comply with the highest performance of Discovery-oriented learning.

Part III Other Information**Keyword Syllabus**

- Computational Literacy
- Programming Fundamentals: Variable, Sequential, Conditional, Loops, Array, System Functions.
- Creative Coding: Animation
- Interactive Media: Image, Sound, Input device (e.g. mouse and keyboard)

Reading List**Compulsory Readings**

Title	
1	Nil

Additional Readings

Title	
1	Casey Reas and Ben Fry (2014). Processing: A Programming Handbook for Visual Designers, 2nd edition. The MIT Press.
2	Lauren McCarthy, Casey Reas, and Ben Fry. Getting Started with p5.js. Published October 2015, Maker Media. 246 pages. Paperback.
3	Dan Saffer (2010). Designing for Interaction: Creating Innovative Applications and Devices. New Riders, 2nd edition