

# SM3601: GAME PROTOTYPING AND DESIGN

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## Effective Term

Semester A 2022/23

## Part I Course Overview

### Course Title

Game Prototyping and Design

### Subject Code

SM - School of Creative Media

### Course Number

3601

### 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

SM2602 Game Design Fundamentals

## Part II Course Details

### Abstract

This course aims to help students understand the game design / development process, how to prepare a design document, and basic game design principles; how to analyze and evaluate a game; help student understand the psychological, social,

and other factors that create “fun” behind a game and related game theories; help students understand the history of video game, different genres of game, aesthetics and cultural issues in games, the politics and social issues in multiplayer games, and the basic of game technology and game prototyping tools.

### Course Intended Learning Outcomes (CILOs)

CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Analyze and evaluate various types of game		x	
2	Apply their understanding of various game elements and create a licensed game design and design a simple game	x	x	x
3	Implement and play-test a game and create a clear and detail game manual	x	x	x
4	Design and create a game box		x	x
5	Appreciate games designs and complexities	x		
6	Commit strongly to self-assessment and self-directed learning in order to continually refine practices	x	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	Analysis Report	Case study on various types of games, write a simple game analysis.	1	4 hrs
2	Assignment	Design a license game, write a simple design document; Create a back box for it.	2	3 hrs
3	Project	Design a game, write a simple design document	3	3 hrs/wk for 3 weeks
4	Project	Implement and play-test the game designed in CILO 3	4	3 hrs/wk for 3 weeks
5	Project	Write a game user manual for the game designed in CILO 3	5	2 hrs

6	Project	Create a game box for CILO 3.	6	2 hrs
7	Lecture	Lecture with interactivity	2	3 hrs/wk

**Assessment Tasks / Activities (ATs)**

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Coursework / Quiz	1, 2	40	
2	Project	3, 4, 5, 6	50	
3	Presentation	1, 2, 4, 6	10	

**Continuous Assessment (%)**

100

**Examination (%)**

0

**Assessment Rubrics (AR)****Assessment Task**

1. Coursework, Project

**Criterion**

Students should demonstrate ability to utilize primary and secondary sources, build up argument and analysis. The threshold of 'discovery' lied in a student' s self initiatives to conduct additional research and to personalize theories for her/his personal daily experience.

**Excellent (A+, A, A-)**

- Excellent grasp of research material, able to explain key concepts, assumptions and debates
- Rigorous organization, coherent structure, distinct thesis, properly argued with strong narrative
- Insightful interpretation of the subject matter with distinct themes and thesis
- Critical analysis with insightful comments opening up new issues, or suggesting the ability to theorize
- Ability to approach a text or a theme using a variety of theories and analytical tools
- Strong bibliography suggesting breadth and depth of coverage and informed insights
- The student' s work is of an excellent / outstanding standard. It exceeds the subject learning outcomes in nearly all regards. Demonstrating originality, often involving original research, interpretations, or insights.
- Relevant technical skills are used with confidence and combined with an intellectual and imaginative understanding.

**Good (B+, B, B-)**

- Firm grasp of materials, able to explain key concepts and assumptions
- Reasonable organization, balanced structure, adequate content, sufficient ability to integrate various resources based on demand
- Clear ideas which keep to the point, clear-cut subject, ability to interpret opinions independently
- Organized bibliography which can be utilized in accordance with the topic
- The student' s work is good. It exceeds the subject learning outcomes in some regards. A competent and generally successfully body of work and other evidence which indicates of all of the elements but this is not sustained across all the elements.

**Fair (C+, C, C-)**

- Comprehensive grasp of materials, able to explain key concepts
- Fair organization, weak structure, adequate content, fair ability to integrate various resources based on demand
- Relevant points to the subject matter, fair ability to interpret opinions
- Unorganized bibliography which can be utilized in accordance with the topic
- The student' s work is wholly satisfactory. If largely meets all the subject learning outcomes. The student may lack the confidence and commitment to present an informed synthesis from the range of learning opportunities on offer.

### **Marginal (D)**

- Loose grasp of materials, cannot explain key concepts
- Poor organization and structure, weak content, limited use of resources
- Relevant points to the subject matter, marginal ability to interpret opinions
- Insufficient and/or unorganized bibliography
- The student's work is weak. It fails to meet the subject learning outcomes in some regards. There may be elements that are very derivative, and just sort of plagiarism. Frequently there is quantitatively little outcome as well.

### **Failure (F)**

- Poor grasp of materials
  - No organization and structure, inadequate content, no/ irrelevant use of resources
  - Irrelevant points to the subject matter, minimal ability to interpret opinions
  - Irrelevant bibliography
  - The student's work is inadequate. It fails to meet most of the subject learning outcomes. Non submission of work without evidence of extenuating circumstances would normally cause this category to be applied automatically.
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## **Assessment Task**

### **2. Presentation**

#### **Criterion**

This assessment will grade on content and fluency of presentation. Students should show their co-operation to conduct a well-organized presentation with their own argument and evidence from readings and notes. The threshold of 'discovery' lied in a student's self initiatives to conduct additional research and to personalize theories for her/his personal daily experience.

#### **Excellent (A+, A, A-)**

- Rich, informative content, excellent grasp of the material with in-depth and extensive knowledge of the subject matter
- Rigorous organization, coherent structure, and systematic exposition with a strong sense of narrative
- Superior presentation skills: distinct pronunciation, fluent expression and appropriate diction, exact time-management
- Critical analysis with insightful comments opening up new issues, or suggesting the ability to theorize

#### **Good (B+, B, B-)**

- Adequate content with firm grasp of the material that informs the audience on a subject matter
- Reasonable organization, balanced structure and composition
- Good verbal communication: comprehensible pronunciation, fluent expression and diction, fair time-management

#### **Fair (C+, C, C-)**

- Adequate content with comprehensive grasp of the material demonstrating basic knowledge of the subject matter
- Fair organization, weak structure and composition
- Fair presentation skills: acceptable pronunciation, expression and diction, fair time-management

#### **Marginal (D)**

- Weak content, loose grasp of the general ideas with some knowledge of the subject matter
- Poor organization, structure and composition
- Poor presentation skills: marginal pronunciation, expression and diction, poor time-management

#### **Failure (F)**

- Inadequate content, fail to identify the general ideas with knowledge of the subject matter
  - No organization, structure or/and composition
  - Poor presentation skills: marginal pronunciation, expression and diction, minimal time-management
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**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**

History of games. Game genres. Game analysis. Game design / principles. Game design document, user manual. Game box design. Decision making, game story telling. Game play design and theory. Card / Board game. Game technology. Future of Gaming.

**Reading List****Compulsory Readings**

	Title
1	Chris Crawford, Chris Crawford on game design, New Riders Publishing, 2003.
2	Andrew Rollings and Dave Morris, Game Architecture and Design. The Coriolis Group. 1999
3	Mark Louis Rybczyk, Richard Rouse, Computer Game Design: Theory and Practice. Wordware Publishing, 2001.
4	Leonard Herman, Phoenix: The Rise and Fall of Videogames. 2d ed. Union, N.J.: Rolenta Press, 1999.
5	Alice LaPlante and Rich Seidner, Playing for Profit: How Digital Entertainment is Making Big Business Out of Child's Play. New York: John Wiley, 1999.
6	Andrew Rollings, Patterns in Game Design: Advanced Design Patterns for Games- Made Easier. The Coriolis Group, 2001.
7	Bob Bates and Andre Lomothe, Art and Business of Creating Games. Prima Publishing. 2001.
8	Steven Kent, The Ultimate History of Video Game. Crown Publishing. 2010.
9	Michael E. Moore, Basics of game design. AK Peters / CRC press. 2011.
10	Ernest Adams, Fundamentals of game design. New Riders. 2010.
11	Katie Salen, Eric Zimmerman, Rules of Play: Game Design Fundamentals. The MIT Press, 2003.
12	Mary Flanagan, Critical Play: Radical Game Design. The MIT Press, 2009.
13	Morgan McGuire and Odest Chadwicke Jenkins, Creating Games: Mechanics, Content, and Technology. A K Peters, 2009.
14	Jesse Schell, The art of game design: A book of lenses. Morgan Kaufmann, 2008.
15	Raph Koster, A theory of fun for game design. Paraglyph Press, 2005.
16	Gamasutra - <a href="http://www.gamasutra.com">http://www.gamasutra.com</a>

**Additional Readings**

	Title
1	Tracy Fullerton, Game Design Workshop. A Playcentric Approach to Creating Innovative Games. A K Peters/CRC Press, 2014.
2	Michelle Menard, Game Development with Unity. Course Technology PTR, 2011.
3	Simple DirectMedia Layer: <a href="http://www.libsdl.org/index.php">http://www.libsdl.org/index.php</a>
4	Unity Game Engine: <a href="http://unity3d.com">http://unity3d.com</a>