

# SM3120: GAME LEVEL DESIGN

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## Effective Term

Semester A 2022/23

## Part I Course Overview

### Course Title

Game Level Design

### Subject Code

SM - School of Creative Media

### Course Number

3120

### 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

SM2705 Creative Media Studio III: Technology, Coding & Tangible Media or SM2715 Creative Coding (Waiver to be granted to BScCM students)

### Precursors

Nil

### Equivalent Courses

Nil

### Exclusive Courses

Nil

## Part II Course Details

### Abstract

The course provides a simple platform for the students to acquire the knowledge and skills of computer game level design from initial planning through design, implement and game testing. The basic principles and aesthetics of game level design will be covered. It also touches on game play design by scripting, writing game story and collecting player feedback. Students are expected to go through the whole process with the use of well-known game design toolsets.

### Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if DEC-A1 DEC-A2 DEC-A3 app.)			
1	Understanding the process of game level design		x		
2	Ability to design, implement and balance multiplayer game level			x	
3	Ability to create an artistically interesting game level			x	
4	Demonstrate programming skill in level scripting			x	
5	Demonstrate teamwork in implementing game concept				x
6	Assign or link up extra self-initiated tasks on top of an assignment / coursework for further exploration of the subject		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	Lecture	Lecture on topic of game level design	1	
2	Assignment	Building game level with toolsets; Game testing; Writing simple game design document	2	
3	Assignment	Game review and collect player feedback	3	
4	Group Assignment	Script programming for controlling the game play	4	

5	Group Assignment	Group project: Online multiplayer game level design	5, 6	
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**Assessment Tasks / Activities (ATs)**

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Game World Creation · Terrain design · Game balance · Game setting	1, 2, 3	35	
2	Cinematic Design · Storytelling and Narrative · Manipulation of game view, units....etc	2, 3	20	
3	Group project: Online Multiplayer Game Design · Level Design · Cinematic · Game play programming · Character modification/ Texture Mapping	2, 3, 4, 5, 6	45	

**Continuous Assessment (%)**

100

**Examination (%)**

0

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

1. Game World Creation, Cinematic Design, Online Multiplayer Game Design

**Criterion**

Students should demonstrate ability to utilize primary and secondary sources, execute creative ideas and projects. The threshold of 'discovery' lies in a student's proactively turning theory into praxis, to transform course material into self-owned authorship.

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

- Work has strong affective quality and the articulation of personal styles and signature
- Excellent appreciation, exploration and/or application of the aesthetic and expressive qualities of the medium
- Work raises questions and instill insights about the process of conception, creative strategization and production
- Innovative exploration by combining knowledge from different disciplines (e.g. mathematics, psychology, physics, anthropology, etc.) to create an inter-disciplinary project
- Efficient adjustment of plans and strategies in response to resources (time, space, equipment, etc) available with constructive adjustment

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

- Strong appreciation, exploration and/or application of the aesthetic and expressive qualities of the medium
- Ability to create project/ work that demonstrate the processes of thinking and creative exploration

- Proper adjustment of plans and strategies in response to resources (time, space, equipment, etc) available and constructive feedback/ suggestions

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

- Basic appreciation and/or application of the aesthetic and expressive qualities of the medium
- Limited ability to create project/ work that demonstrate the processes of thinking and creative exploration
- Adjustment of plans and strategies in response to resources (time, space, equipment, etc) available

**Marginal (D)**

- Marginal appreciation of the aesthetic and expressive qualities of the medium
- Marginal ability to create project/ work that demonstrate the processes of thinking and creative exploration
- Limited adjustment of plans and strategies in response to resources (time, space, equipment, etc) available

**Failure (F)**

- No appreciation of the aesthetics and expressive qualities of the medium
- Fail to create project/ work that demonstrate the processes of thinking and creative exploration
- Minimal adjustment of plans and strategies in response to resources (time, space, equipment, etc) available

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**Assessment Task**

2. Class Participation and Performance

**Criterion**

This assessment task reviews students' participation and performance in discussions, debates and peer critique during the tutorial sessions. The evidence of 'negotiation', the sign of discovery, lies in students' pre-class preparation and interpersonal sensitivity to his/her peer members.

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

- Active in-class participation, positive listening, strong ability to stimulate class discussion and comment on other points
- In-depth pre-class preparation and familiarity with peer reports and other materials
- Interpret others' views with an open mind and ready to negotiate
- Readiness to share personal insight via analysis and synthesis with informed views
- Constructively critical, thus facilitating the discovery of new issues

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

- Active in-class participation, positive listening, ability to initiate class discussion and comment on other points
- Adequate pre-class preparation and familiarity with peer reports and other materials
- Interpret opinions effectively

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

- Attentive in in-class participation, listening with comprehension, but only infrequently contributing
- Adequate pre-class preparation but little familiarity with peer reports and other materials
- Fair ability in interpreting opinions

**Marginal (D)**

- Unmotivated to participate in class discussion or comment on other people's views
- Little pre-class preparation and familiarity with peer reports and other materials
- Poor ability in interpreting opinions

**Failure (F)**

- Unwilling to participate in class discussion and comment on other points, even when requested by the teacher
  - No pre-class preparation and familiarity with peer reports and other materials
  - Minimal ability in interpreting opinions
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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**

Game design; game level design; computer game; level design tools; game play; player experience; game balance; game genres; terrain design; building architecture and spaces; AI; dialogue and story; scripting; polishing; texture mapping; 3D modelling; cinematic

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

Title	
1	Game design perspectives / edited by Francois Dominique Laramee Andrew Rollings and Ernest Adams on Game Design
2	Game Level Design (Game Development Series) by Ed Byrne
3	Beginning Game Level Design (Premier Press Game Development) by John Harold Feil , Marc Scattergood

**Additional Readings**

Title	
1	Game Architecture and Design: A New Edition