



COMP2150

Game Design

Session 1, In person-scheduled-weekday, North Ryde 2022

School of Computing

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General Information

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Credit points

10

Prerequisites

(COMP1150 or COMP111) or (MMCC1011 or MAS111)

Corequisites

Co-badged status

Unit description

This unit covers the theory and practice of designing games, using an iterative, player-centric approach. Students will be introduced to different aspects of game design and will develop their game design skills through hands-on creation and evaluation of their own games.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

- ULO1:** Apply the process of iterative, player-centric game design to produce intermediate-level games.
- ULO2:** Analyse and critique existing games according to the principles of game design.
- ULO3:** Prototype novel level-design implementations within an existing game engine.
- ULO4:** Collaborate with fellow designers to imagine game experiences and design gameplay mechanics to achieve them.
- ULO5:** Communicate design goals and reasoning through appropriate documentation.
- ULO6:** Evaluate game prototypes by playtesting, and use the results to refine the design.

General Assessment Information

Weekly quizzes, weekly participation and game analysis tasks must be undertaken at the time indicated in the unit guide and via ilearn. Should these activities be missed due to illness or misadventure, students may apply for Special Consideration.

Level Design, Table top game design and Game Playtesting tasks must be submitted by 5:00 pm on their due date.

Should these assessments be missed due to illness or misadventure, students should apply for Special Consideration.

Late submissions for the Level Design, Table top game design and playtesting tasks are permissible.

A 12-hour grace period will be given after which the following deductions will be applied to the awarded assessment mark: 12 to 24 hours late = 10% deduction; for each day thereafter, an additional 10% per day or part thereof will be applied until five days beyond the due date. After this time, a mark of zero (0) will be given. For example, an assessment worth 20% is due 5 pm on 1 January. Student A submits the assessment at 1 pm, 3 January. The assessment received a mark of 15/20. A 20% deduction is then applied to the mark of 15, resulting in the loss of three (3) marks. Student A is then awarded a final mark of 12/20.

Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Game Analysis</u>	20%	No	In class
<u>Game playtesting</u>	25%	No	Friday June 17th 2022
<u>Weekly participation</u>	0%	Yes	Weekly
<u>Level Design</u>	25%	No	Friday 8th April 2022
<u>Weekly quizzes</u>	5%	Yes	Weekly
<u>Tabletop game design</u>	25%	No	Friday 17th June 2022

Game Analysis

Assessment Type ¹: Media presentation

Indicative Time on Task ²: 19 hours

Due: **In class**

Weighting: **20%**

Students will analyse a game based on the design principles taught in lectures and present their analysis to their tutorial class in a 10 min pre-recorded video presentation. Students are expected to be able to analyse a game according to the experience it conveys, and how that experience is rooted in the mechanics and dynamics of the game. Students will be assigned specific weeks in which to present. The presentation will focus on the topic of previous week's lecture

On successful completion you will be able to:

- Analyse and critique existing games according to the principles of game design.

Game playtesting

Assessment Type ¹: Lab report

Indicative Time on Task ²: 20 hours

Due: **Friday June 17th 2022**

Weighting: **25%**

Playtest the tabletop game designed above to evaluate whether it meets the desired goals. Students are expected to demonstrate an understanding of the processes of gathering both

qualitative and quantitative data on players' behaviour and experience while playing the game, to provide information to improve its design.

On successful completion you will be able to:

- Evaluate game prototypes by playtesting, and use the results to refine the design.

Weekly participation

Assessment Type ¹: Participatory task

Indicative Time on Task ²: 0 hours

Due: **Weekly**

Weighting: **0%**

This is a hurdle assessment task (see [assessment policy](#) for more information on hurdle assessment tasks)

Participation in weekly design tasks

On successful completion you will be able to:

- Apply the process of iterative, player-centric game design to produce intermediate-level games.
- Collaborate with fellow designers to imagine game experiences and design gameplay mechanics to achieve them.
- Evaluate game prototypes by playtesting, and use the results to refine the design.

Level Design

Assessment Type ¹: Design Task

Indicative Time on Task ²: 20 hours

Due: **Friday 8th April 2022**

Weighting: **25%**

Design, implement and document a game level using a commercial game engine. Students are expected to demonstrate an understanding of the principles of challenge, reward, progress and spatial and temporal arrangement amongst other design considerations. As well as producing the level students will also be required to submit accompanying design documentation justifying their design decisions.

On successful completion you will be able to:

- Apply the process of iterative, player-centric game design to produce intermediate-level games.
- Prototype novel level-design implementations within an existing game engine.
- Communicate design goals and reasoning through appropriate documentation.

Weekly quizzes

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 6 hours

Due: **Weekly**

Weighting: **5%**

This is a hurdle assessment task (see [assessment policy](#) for more information on hurdle assessment tasks)

Weekly online quizzes covering the theory presented in lectures.UL

On successful completion you will be able to:

- Apply the process of iterative, player-centric game design to produce intermediate-level games.
- Analyse and critique existing games according to the principles of game design.

Tabletop game design

Assessment Type ¹: Design Task

Indicative Time on Task ²: 20 hours

Due: **Friday 17th June 2022**

Weighting: **25%**

Design and implement a multiplayer card/board game with a resource economy and inter-player dynamics. Students are expected to demonstrate an understanding of the principles of balancing a resource economy and creating strategic play. Students will be required to submit full design documentation, justifying their design decisions.

On successful completion you will be able to:

- Apply the process of iterative, player-centric game design to produce intermediate-level games.
- Collaborate with fellow designers to imagine game experiences and design gameplay

mechanics to achieve them.

- Communicate design goals and reasoning through appropriate documentation.

¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

CLASSES

Each week COMP2150 has two hours of lectures and a two-hour workshop. Please see the Timetable at <http://www.timetables.mq.edu.au> for details

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Prescribed Textbooks

The textbook for this unit is:

- Schell, J., 2019, The Art of Game Design: A Book of Lenses, 3rd edition, Morgan Kaufmann, ISBN-10: 1138632058 | ISBN-13: 978-1138632059

Additional References

- Adams, E., 2010: Fundamentals of Game Design, 2nd. ed., New Riders, ISBN-10: 0321643372 | ISBN-13: 978-0321643377
- Totten, C.W. 2014, An Architectural Approach to Level Design, A K Peters/CRC Press ISBN-10: 1466585412 | ISBN-13: 978-1466585416
- Adams, E., Dormans, J., 2012 Game Mechanics: Advanced Game Design, New Riders; ISBN-10: 0321820274 | ISBN-13: 978-0321820273
- Novak, J., Castillo, T. 2008 Game Development Essentials: Game Level Design, Cengage Learning, ISBN-10: 1401878644 | ISBN-13: 978-1401878641
- Swink, S. 2008, Game Feel: A Game Designer's Guide to Virtual Sensation, Morgan Kaufmann, ISBN-13 978-0-12-374328-2

These recommended texts are not compulsory for the subject, however, they do provide reliable and relevant resources to support the course material. These texts may be useful for later subjects that you will study as part of your degree. You are also encouraged to check for other

sources, including alternative books and on-line material.

Other Readings

Other reading(s) for this subject will be provided via on-line material on the Web. You should be familiar with accessing through links to on-line sources of information. It is important to realise that there will be additional costs to you which may not be present in traditional presentation of education materials. Such costs include connection, time charges and access to specific information on the Web. Your Internet provider can supply you with more details.

UNIT WEBPAGE AND TECHNOLOGY USED AND REQUIRED

Online Resources

The unit website can be found through the University's Online Learning at MQ website (iLearn): <http://ilearn.mq.edu.au>

Students should check this site for regular updates.

Technology Used and Required

Unity 3D. The free version of this can be downloaded at <http://unity3d.com/get-unity>

Various commercial games will be referred to as examples in class.

Unit Schedule

1	Unit Introduction Principles of Game design	
2	Iterative Design. Prototyping and playtesting Design Documents	
3	Toys, Games and Discovery	
4	Challenge and Drama	
5	Level Design	
6	Level design examples	
7	Prototyping	Assignment 1 due
8	Systems, economies, choices	
9	Multiplayer design	
10	Playtesting Worldbuilding	
11	UI & Aesthetics	

12	Game Feel Self Expression	
13	Revision	
14		
15		Game design and playtesting report due

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies \(https://students.mq.edu.au/support/study/policies\)](https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing an](#)

[d maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

The Writing Centre

[The Writing Centre](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Workshops](#)
- [Chat with a WriteWISE peer writing leader](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)
- [Complete the Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault
- [Social support including information about finances, tenancy and legal issues](#)

Student Enquiries

Got a question? Ask us via [AskMQ](#), or contact [Service Connect](#).

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

There has been revision to the lecture content and ordering to better support the unit outcomes and assessment design. Practical topics have been similarly revised.

Changes since First Published

Date	Description
17/02/2022	There was an error in a due date. It said 8th March but should have said 8th April