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### Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

### Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to timetable viewer. To check detailed information on unit assessments visit your unit’s iLearn space or consult your unit convenor.
General Information

Unit convenor and teaching staff
Michael Hitchens
michael.hitchens@mq.edu.au
Contact via email
Mitchell McEwan
mitchell.mcewan@mq.edu.au

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://students.mq.edu.au/important-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

Late Submission
No extensions will be granted without an approved application for Special Consideration. There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late. For example, 25 hours late in submission for an assignment worth 10 marks – 20% penalty or 2 marks deducted from the total. A submission that is more than 120 hours late will receive a mark of zero (0) and/or a fail grade.

Weekly Participation
The practical classes in this subject are designed to let you practise the elements of design we discuss in lectures each week, using a variety of paper-prototyping exercises and working with other students. They form an important component of your learning in this unit. Students will be formed into groups each week and work on a design problem. Students are expected to actively participate in their group’s work on the design, both by discussing ideas and by contributing ideas. There will also normally be an opportunity to provide feedback to other groups and this is also part of the required participation. To satisfy this hurdle requirement you must successfully participate in at least eight (8) of the weekly practical sessions.

Weekly Quizzes
To satisfy this hurdle you must attempt at least eight (8) of the weekly quizzes.

Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly participation</td>
<td>0%</td>
<td>Yes</td>
<td>Weekly</td>
</tr>
<tr>
<td>Weekly quizzes</td>
<td>5%</td>
<td>Yes</td>
<td>Weekly</td>
</tr>
<tr>
<td>Game Analysis</td>
<td>20%</td>
<td>No</td>
<td>In weekly tutorial (once per team)</td>
</tr>
<tr>
<td>Level Design</td>
<td>25%</td>
<td>No</td>
<td>Friday April 23rd (week 7)</td>
</tr>
<tr>
<td>Game playtesting</td>
<td>25%</td>
<td>No</td>
<td>Friday June 18th</td>
</tr>
<tr>
<td>Tabletop game design</td>
<td>25%</td>
<td>No</td>
<td>Friday June 18th</td>
</tr>
</tbody>
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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.

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.

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.

Game Analysis

Assessment Type 1: Media presentation  
Indicative Time on Task 2: 19 hours  
Due: In weekly tutorial (once per team)  
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.

**Level Design**

*Assessment Type 1: Design Task*

*Indicative Time on Task 2: 20 hours*

*Due: Friday April 23rd (week 7)*

*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.

**Game playtesting**

*Assessment Type 1: Lab report*

*Indicative Time on Task 2: 20 hours*

*Due: Friday June 18th*

*Weighting: 25%*

Playtest the tabletop game designed above to evaluate whether it meets the desire 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.

Tabletop game design

Assessment Type 1: Design Task
Indicative Time on Task 2: 20 hours
Due: **Friday June 18th**
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.

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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 Learning Skills Unit 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 tutorial. 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:


Additional References


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 official location (URL) of unit information once you have loaded your WWW browser is: http://ilearn.mq.edu.au

Once you have enrolled in the unit, you must gain access to comp2150 website. We will be using the University’s Online Learning at MQ website (iLearn). 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

<table>
<thead>
<tr>
<th>Unit</th>
<th>Topic</th>
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| 1    | Unit Introduction  
Revision of MDA/Kinds of fun. Player-centric design. |
| 2    | Iterative Design. Prototyping and playtesting  
Design Documents |
| 3    | Challenge and Drama |
| 4    | Level design - Laying out challenges in space/time. Teaching the player, Difficulty |
| 5    | Level design - Architectural design, white-boxing, molecule diagrams |
| 6    | Games as systems.  
Toys, resource economies. Interesting choices. |
| 7    | Multiplayer Dynamics |
| 8    | Playtesting  
World Building |
| 9    | Story and Characters |
| 10   | Aesthetics and Game Feel |
| 11   | Puzzles/Challenges/Rewards  
Immersion/presence/player experience/motivations (intrinsic vs extrinsic) |
| 12   | Self Expression  
Serious Games |
| 13   | Guest Lecture |
| 14   | |
| 15   | Game design and playtesting report due |

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central [https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). 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
• Grade Appeal Policy
• Complaint Management Procedure for Students and Members of the Public
• Special Consideration Policy *(Note: The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

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

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

**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

**Student Support**

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

**Learning Skills**

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

• Getting help with your assignment
• Workshops
• StudyWise
• 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 Enquiry Service
For all student enquiries, visit Student Connect at ask.mq.edu.au
If you are a Global MBA student contact globalmba.support@mq.edu.au

Equity Support
Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

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
The only significant changes are

• the weekly designs tasks being a hurdle requirement in 2021
• Expansion of playtest task due compared to 2020

Changes since First Published

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<thead>
<tr>
<th>Date</th>
<th>Description</th>
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<tbody>
<tr>
<td>08/02/2021</td>
<td>Missing word in the weekly class participation requirement</td>
</tr>
<tr>
<td>05/02/2021</td>
<td>More information on hurdles</td>
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https://unitguides.mq.edu.au/unit_offerings/140000/unit_guide/print