COMP352

Videogames Project

S2 Day 2019

Dept of Computing

Contents

General Information

Unit convenor and teaching staff
Convenor
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Lecturer
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Credit points
3

Prerequisites
39cp at 100 level or above including COMP260

Corequisites
COMP330 or MECO329

Co-badged status

Unit description
Students will work in groups to create a videogame using a commercial-level game engine. This will enable them to apply their previously acquired skills in videogame design and implementation to a substantial project. Teams will be expected to develop their own concept for the game. This will require creative design, the production of supporting documentation, quality control, and other associated skills and concepts. Teams will be expected to produce a compelling game proposal and meet regular agreed milestones as well as producing game documentation and giving a final presentation.

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:

Be able to apply the agile development process (prototyping and playtesting) to a large

scale video game design and development project.

Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process

Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience

Have improved their communication skills, both oral and written, in describing and documenting their game design work.

Have developed the fundamental skills required for personal reflection and life-long learning.

Assessment Tasks

Name	Weighting	Hurdle	Due
Elevator Pitch	6%	No	Week 2
Pitch	5%	No	Week 3
Project Plan	5%	No	Week 4
Milestone 1	4%	No	Week 5
Milestone 2	4%	No	Week 7
Milestone 3	4%	No	Week 8
Milestone 4	4%	No	Week 10
Milestone 5	4%	No	Week 12
Milestone 6	4%	No	Week 13
Complete game	10%	No	Week 13
Design document	15%	No	Week 13
Playtesting report	15%	No	Week 13
Post-mortem	20%	No	Week 13

Elevator Pitch

Due: **Week 2**

Weighting: **6%**

A two-minute pitch of a game idea to class.

Rubric:

A (100). Outstanding. An original and creative idea clearly and concisely pitched, through words and images. B (80). Very Good. A good idea, clearly communicated. C (60). Fair. An idea is presented but there there is a fair amount of vagueness or rambling. F (40) Poor. Major problems with communication. It is hard to tell what is being pitched.

On successful completion you will be able to:

- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process
- Have improved their communication skills, both oral and written, in describing and documenting their game design work.

Pitch

Due: **Week 3**
Weighting: **5%**

A pitch of a proposed design to clients. Should include:

1. Design outline
2. Storyboards
3. Art style
4. Target audience & platform

All team members are expected to present and will be individually assessed for their contribution.

Rubric

A (100). Outstanding. An original and creative idea clearly and concisely pitched, through words and images. B (80). Very Good. A good idea, all components clearly communicated. C (60). Fair. An idea is presented but there there is a fair about of vagueness or rambling. D (40) Poor. Major problems with communication. It is hard to tell what is being pitched.

On successful completion you will be able to:

- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Have improved their communication skills, both oral and written, in describing and documenting their game design work.

Project Plan

Due: **Week 4**
Weighting: **5%**

A written project plan based on feedback from the pitch.

Rubric:

A+. (100) Outstanding. Ambitious and well-researched proposal showing high levels of creativity. A thoughtful plan for working together that seriously addresses problems that might arise and takes ownership of them. A. (90) Excellent. Ambitious design goals, clearly communicated. Solid set of proposed mechanics. Well researched target audience/platform. A plan for teamwork with evidence of significant thought put into preparation. B. (80) Very Good. Clear and specific design goals. Solid set of proposed mechanics. Good target audience/platform. A sensible plan for how the team will operate. C. (70) Good. Clear and specific design goals. A plausible set of proposed mechanics. A sensible plan for how the team will operate. D. (60) Fair. Some vagueness or omissions in design goals, mechanics, or team plan. E. (50) Poor. Multiple areas of vagueness in proposed game or team plan. F. (< 50) Bad. Significant sections unclear or missing.

On successful completion you will be able to:

- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience

Milestone 1

Due: **Week 5**
Weighting: **4%**

A prototype and progress report based on agreed milestone targets. Individual team members will be assessed based on their activity on the project.

Assessment will be based on both a group Milestone report and on individual peer-assessment.

Rubric:

Group Report

A+ (100) Outstanding. Team exhibits a high level of professionalism in their work, allocating work and getting it done efficiently. Measures are taken to actively pursue high-quality workflow. A. (90) Excellent. Team are maintaining strong progress, keeping ahead of schedule. B. (80) Very Good. Tasks are being well allocated and significant progress has been achieved. Problems are

being addressed and followed-up from earlier sprints. C. (70) Good. Tasks are sensibly allocated and mostly being achieved. The group is making progress towards its goal. Problems are being recognised and addressed. D. (60) Fair. Task allocation is patchy, team members have too much or too little work, or duties are vague. Progress is being made, but lacks coordination. Problems are acknowledged but not being addressed. E. (50) Poor. Task allocation is unclear. Progress is limited. Problems are not being recognised. F. (< 50) Bad. Ongoing failure to make progress or address major problems.

Peer Assessment:

A+ (100) Outstanding. The team member went well beyond the call of duty to produce remarkable results. A. (90) Excellent. The team member put in extra effort to produce high quality results. B. (80) Very Good. The team member did the work they were expected to, with high quality results. C. (70) Good. The team member did all the work they were expected to, with good quality results. D. (60) Fair. The team member did most of the work they were expected to, with mixed results. E. (50) Poor. The team member did not put in much effort, left significant pieces of work unfinished or unusable F. (< 50) Bad. The team member did little or no work, or actively hindered the group from making progress

On successful completion you will be able to:
- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process
- Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience
- Have developed the fundamental skills required for personal reflection and life-long learning.

Milestone 2

Due: **Week 7**
Weighting: **4%**

A prototype and progress report based on agreed milestone targets. Individual team members will be assessed based on their activity on the project.

Rubric: As above

On successful completion you will be able to:
- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.

- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process
- Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience
- Have developed the fundamental skills required for personal reflection and life-long learning.

Milestone 3

Due: **Week 8**
Weighting: **4%**

A prototype and progress report based on agreed milestone targets. Individual team members will be assessed based on their activity on the project.

Rubric: As above

On successful completion you will be able to:
- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process
- Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience
- Have developed the fundamental skills required for personal reflection and life-long learning.

Milestone 4

Due: **Week 10**
Weighting: **4%**

A prototype and progress report based on agreed milestone targets. Individual team members will be assessed based on their activity on the project.

Rubric: As above

On successful completion you will be able to:
- Be able to apply the agile development process (prototyping and playtesting) to a large

scale video game design and development project.
- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process
- Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience
- Have developed the fundamental skills required for personal reflection and life-long learning.

Milestone 5

Due: **Week 12**
Weighting: **4%**

A prototype and progress report based on agreed milestone targets. Individual team members will be assessed based on their activity on the project.

Rubric: As above

On successful completion you will be able to:
- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process
- Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience
- Have developed the fundamental skills required for personal reflection and life-long learning.

Milestone 6

Due: **Week 13**
Weighting: **4%**

A progress report based on agreed milestone targets. Individual team members will be assessed based on their activity on the project.

Rubric: As above

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- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process
- Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience
- Have developed the fundamental skills required for personal reflection and life-long learning.

Complete game

Due: **Week 13**
Weighting: **10%**

Final game demonstrated to industry sponsors. Mark is determined by sponsors.

Rubric:

A+. (100) This is publishable with minor work. A. (90) This is clearly publishable but requires more work. B. (80) This has the potential to be a fun idea but needs considerable development C. (70) This is competently done, but not worth pursuing D. (60) This has some major flaws in the design / implementation, but is still recognisably a game E. (50) This is playable but the the design weak to nonexistent F. (< 50) This is unplayable — reserved for groups that pretty much fail to make something work.

On successful completion you will be able to:
- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process
- Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience

Design document

Due: **Week 13**
Weighting: **15%**

A 2500 word report thoroughly describing of the final game mechanics of the game, justified in terms of the effect they are intended to achieve.

Rubric:

A+. (100) Outstanding. Exemplary in terms of originality or cleverness of design. Insightful analysis of game dynamics. A. (90) Excellent. Ambitious design goals, clearly communicated. Mechanics clearly and thoroughly described. Deep analysis of game dynamics. B. (80) Very Good. Clear and specific design goals. Mechanics clearly and thoroughly described. Thoughtful analysis of how mechanics meet the design goals. C. (70) Good. Clear and specific design goals. Mechanics clearly described, with some omissions. Adequate analysis of how mechanics meet the design goals. D. (60) Fair. Some vagueness or omissions in design goals and mechanics. Weak analysis. E. (50) Poor. Vague design goals. Mechanics described unclearly or with significant omissions. Little attempt at analysis. F. (< 50) Bad. Significant sections unclear or missing.

On successful completion you will be able to:
- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process
- Have improved their communication skills, both oral and written, in describing and documenting their game design work.

Playtesting report

Due: **Week 13**
Weighting: **15%**

A 2500 word report describing the playtesting process applied to the game including:

1. The hypotheses being tested
2. The experiment design
3. The results

Rubric

A+. (100) Outstanding. Exemplary in terms of experiment design and thoroughness of analysis, leading to specific design decisions which are re-evaluated over time. A. (90) Excellent. Evidence of a clear program of testing over time, confirming decisions made in previous tests. A/ B testing to compare different solutions to design problems. Intelligent use of appropriate quantitative data. Large samples and appropriate statistical analysis. B. (80) Very Good. Testing that targets specific game features. Clear hypotheses. Appropriate data gathered for to evaluate both behaviour and experience. Thoughtful analysis. Clear identification of how result affected

design decisions. C. (70) Good. Testing with general hypotheses. Data gathering is targeted but mostly qualitative -- observations and surveys. Some attempt at analysis which leads to specific design decisions. D. (60) Fair. Testing with general hypotheses. Data is entirely subjective. Weak attempt at analysis, with unsubstantiated design decisions. E. (50) Poor. Testing with vague hypotheses. Data is entirely observation. Little attempt at analysis. Unclear how it affects the design. F. (< 50) Bad. Significant sections unclear or missing

On successful completion you will be able to:

- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.

- Have improved their communication skills, both oral and written, in describing and documenting their game design work.

Post-mortem

Due: **Week 13**
Weighting: **20%**

A 3000 word report reflecting on the project including:

1. What aspects of the final game were successful/unsuccessful
2. What aspects of the group-work process were helpful/unhelpful

Rubric:

A+. (100) Outstanding. Deep and personal insights into design and/or development process. A. (90) Excellent. Thorough assessment of both the game and the process. Personal reflection with ownership of problems and insight into solutions. B. (80) Very Good. Some valuable self-reflection and personal ownership, or otherwise insightful lesson learned. C. (70) Good. All elements clearly and properly addressed. D. (60) Fair. All elements addressed. Criticism is weak. E. (50) Poor. Failure to meaningfully engage in criticism. F. (< 50) Bad. Significant sections missing.

On successful completion you will be able to:

- Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience

- Have improved their communication skills, both oral and written, in describing and documenting their game design work.

- Have developed the fundamental skills required for personal reflection and life-long learning.

Delivery and Resources

CLASSES

Classes will only be held in the weeks scheduled below. The lecturer will be available for consultation in the other weeks if desired.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

There is no prescribed text for this unit. However we recommend:

- **Agile Game Development with Scrum**, by Clinton Keith. Addison-Wesley Professional; 1 edition (June 2, 2010) ISBN-13: 978-0321618528

UNIT WEBPAGE

Please login to ilearn http://ilearn.mq.edu.au/

TECHNOLOGIES USED AND REQUIRED

The technology you use will depend on your project's needs. You will have access to the games lab computers and the software on them. Extra software required may be added if a good case can be made for it. You may also want to use resources that your sponsor and team members have access to. Your technology needs will be determined and defined by you in your project plan.

Unit Schedule

WEEK	TOPIC
1	Agile project management for game development
2	Elevator pitches
3	Pitches to industry sponsors
4	No class
5	Milestone 1 demonstrations
6	No class
7	Milestone 2 demonstrations
	Mid semester break
8	Milestone 3 demonstrations
9	Playtesting
10	Milestone 4 demonstrations

11	Playtesting
12	Milestone 5 demonstrations
13	Group demonstration of game to sponsors

Learning and Teaching Activities

Learning and Teaching Strategies

COMP352 is taught through the involvement in a group project. Much of what is learnt is gained through experience and problem solving at the individual and group level. The unit will require the student to apply knowledge and skills gained in previous units and also require the student to acquire new knowledge and skills which will vary for each student and project according to the problem needing to be solved. The content of the unit includes: Preparation of a detailed project proposal and plan. Undertaking an extended group project. Preparation of intermediate and final project deliverables. Preparation of a final reflective report. A group project presentation.

Learning and Teaching Tips

To be successful you should: Meet with your group regularly, ideally weekly. Make sure you take notes, set agendas and action items and at the start of each meeting check the status of all action items. Attend the compulsory class sessions. Read appropriate material to support the technical and management aspects of your project. Perform the tasks assigned to you. Undertake self-study to acquire missing knowledge and skills needed for your particular project. Continually review and revise your project plan and ensure you are working to meet delivery of milestones by the specified time.

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). 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.)*

Undergraduate students seeking more policy resources can visit the Student Policy Gateway (htt

ps://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 (https://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/study/getting-started/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

Special consideration policy of the Department of Computing:

http://comp.mq.edu.au/undergrad/policies/special_consideration_policy.htm

Plagiarism

Please refer to the Department of Computing Plagiarism Policy for the definition of plagiarism, advice on avoiding it and the penalties in place if you are found to have submitted plagiarised work.

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 improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and 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.

Student Enquiries

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

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.

Graduate Capabilities

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcomes

- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process

Assessment tasks

- Elevator Pitch
- Pitch
- Project Plan
- Milestone 1
- Milestone 2
- Milestone 3
- Milestone 4
- Milestone 5
- Milestone 6
- Complete game
- Design document
- Playtesting report

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement.

They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Understand and be able to make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's client and the delivered game's target audience
- Have developed the fundamental skills required for personal reflection and life-long learning.

Assessment tasks

- Project Plan
- Milestone 1
- Milestone 2
- Milestone 3
- Milestone 4
- Milestone 5
- Milestone 6
- Complete game
- Post-mortem

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcome

- Have developed the fundamental skills required for personal reflection and life-long learning.

Assessment tasks

- Milestone 1
- Milestone 2

- Milestone 3
- Milestone 4
- Milestone 5
- Milestone 6
- Post-mortem

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process

Assessment tasks

- Elevator Pitch
- Pitch
- Project Plan
- Milestone 1
- Milestone 2
- Milestone 3
- Milestone 4
- Milestone 5
- Milestone 6
- Complete game
- Design document
- Playtesting report

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and

they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Be able to apply the agile development process (prototyping and playtesting) to a large scale video game design and development project.
- Have developed their ability to turn creative ideas in actual products, including the tradeoffs necessary in this process

Assessment tasks

- Elevator Pitch
- Pitch
- Project Plan
- Milestone 1
- Milestone 2
- Milestone 3
- Milestone 4
- Milestone 5
- Milestone 6
- Complete game
- Design document
- Playtesting report

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcome

- Have improved their communication skills, both oral and written, in describing and documenting their game design work.

Assessment tasks

- Elevator Pitch

- Pitch

- Design document

- Playtesting report

- Post-mortem

Grading and Passing

The final mark for the unit will be calculated by combining the marks for all assessment tasks according to the percentage weightings shown in the assessment summary.

The group-work component of the assessment (Design overview, Design Document, Playtesting document) will be marked in common for all group members, but individual marks will be modulated based on peer assessment feedback, based on performance in the team.

All work submitted should be readable and presented in a business-like and professional format.

Late work will not be accepted. As you are working in a team and also are expected to perform risk management, sickness or other misadventure needs to be planned for and managed.

Grade Assessment Standards

P	Has participated in group-based projects which delivered satisfactory outputs throughout the semester.
CR	Has participated in group-based projects throughout the semester which delivered quality outputs.
D	Has participated in group-based projects throughout the semester which consistently delivered high quality outputs. All the assignment, practical and tutorial tasks (programming and written) completed to a very high standard. .
HD	Has participated in group-based projects throughout the semester which consistently delivered high quality outputs. Students achieving this grade are often distinguished by a high level of effort, enthusiasm, competence and often leadership in their project groups.