

159.261

Games Programming

Course Introduction & History of Video Games

About the language

English Only in class, including writing an email.

All submission documents must be in English as well.

How the course is run

Each class will be a workshop

- We will cover some concepts followed by activities
- Provide links to online resources

Theory will be demonstrated using practice examples when possible.

Assignments are designed to showcase your skills to potential employers.

How the course is run

Lectures: 12 weeks. Monday, Wednesday 10:25 - 12:00 C1-106

Labs: Thursday 14:30-16:05 C2-101 NZ223
16:25-18:00 C2-301 NZ221 NZ222

Easter break: 21st April — 2nd May, 2025



All course content will be available on Stream.
Contents will be released progressively.

Make sure you can access the Stream page*

<https://stream.massey.ac.nz/course/view.php?id=73123>

*If you cannot access the Stream page, there may be an issue with your enrolment which should be addressed as soon as possible.

Study Strategy

- Come to class & labs **in person**. No online recordings. Self Study
- 12 Weeks lectures followed by lab sessions
- Ask questions: after class, labs, email, stream forum discussion
- Online resources posted on Stream
- Class/lab time is the best time to ask questions
- Please be careful about how/to what extent you are collaborating with other students!

Course Assessments

There are **three** assessments in this course:

- | | |
|---------------------------------------|---|
| 1. Individual Game Project | 30% (27th April) |
| 2. Lab Test | 30% (week 10) |
| 3. Group Game Project
Presentation | 30% (25th May)
10% (week 12) |

Late submission penalty: **10%** deduction for one day late. More than **10 days** late you will receive 0 mark.

Course Assessments



Giving another student your work



Copying someone else's work. This includes work done by someone not on the course



Copying from books, Internet etc. and submitting it as own work. Anything taken directly from another source must be acknowledged correctly: show the source alongside the quotation



Plagiarism will be reported to team leader who may refer the matter to the School Discipline Committee, who have powers of suspension/exclusion.

Unacceptable Assistance

Course Assessments



AI PLANNING

You may use AI for planning, idea development and research. Your final submission should show how you have developed and refined these ideas.

► See what this means for this assessment

The prompts and outputs of any AI used must be provided in an appendix to your submitted assessment. See these [guidelines for writing your appendix](#).

[Find out more about AI at Massey](#)

Course Assessments

For transparency, include an appendix detailing:

- The AI tools used (e.g., ChatGPT, Deepseek).
- Prompts given and the responses received.
- How you modified and improved AI-generated content in your final submission.

What will be in this course

1. Overview of Computer Games and their history
2. Brief introduction to Game Design & Evaluation
3. Introduction to Java Programming Language & Graphics Libraries
4. The basic structure of a Game Engine
5. Introduction to Physics Simulations
6. Introduction to Computer Graphics
7. Introduction to Artificial Intelligence for Games
8. Giving you the flexibility to go well above and beyond what this course covers, as part of your Assignments (if your heart desires)
9. and a lot of fun!

What will **not** be in this course

1. Details of games design
2. How to write the next blockbuster computer game
3. Ethical considerations of designing computer games
4. 3D games programming

(developing 3D games is covered in 159.361 advanced games programming)

Programming Language

The programming language used in the course will be Java.

Java:

is Object-oriented

has similar syntax to C

is platform independent

has a standard graphics library

What is a Game?

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Mary Poppins, Supernanny

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“A game is a series of interesting choices.”

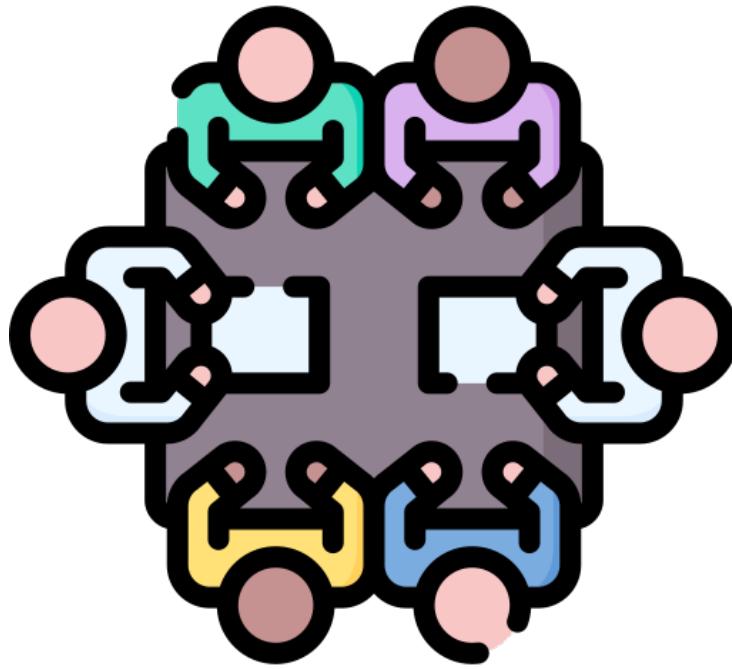
Sid Meier

What is a Game?



- Crash Course (YouTube Link)
<https://www.youtube.com/watch?v=QPqR2wOs8WI>

What should a Game have?



What should a Game have?

A game should have some (or all) of the following:

- Goals
 - Rules
 - Conflict
 - Win/Lose Conditions
 - Challenges
 - Interactivity
 - Engagement with the player
 - Are played willfully
 - Problem - solving activity
- The Art of Game Design, Jesse Schell, CRC Press

Class Activity

Discuss in groups of 3-4 what your favourite game is and what it is specifically about them that you like.

Share your discussion with the class.

My favourite games

