

## Overview

The coursework for AC31009 consists of designing and implementing a computer game. This can be any sort of game you wish from a side scrolling shooter to a logic puzzle based one.

However, there are 4 things that your game must have:

1. It must have a graphical user interface (GUI) of some sort.
2. The implementation must use the MVC design pattern.
3. It must also use two other design patterns.
4. It must make use of at least one of the following concepts:
  - a. real time game play
  - b. physics engine
  - c. collision detection
  - d. concurrency
  - e. networking
  - f. artificial intelligence

This assignment is in 3 parts:

Part 1 is a plan for the game and is due in by **Midnight on Monday the 22nd of October**.

Part 2 is a elevator pitch for your game design this will be done during the **Seminar on Friday the 2nd of November**.

Part 3 is the game itself this is due in by **Midnight on Monday the 19th of November**.

## Part 1

Part 1 of the assignment is a detailed plan for your game. It should include the following sections:

1. A one page game design overview (based on the worksheet given out).
2. A more detailed explanation of the design details.
3. A detailed explanation of which software and hardware you will be using and why this is the case.
4. A detailed explanation of the graphics and audio used in the game. Both of these elements should be completed before the plan is finished. The graphics (or a sample of them) should be included in the appendix.
5. A detailed explanation of the game code structure including detailing where you will use each of the design patterns. This should include appropriate UML diagrams.
6. A detailed account of which of the game specific features you will be including (point 4 in the game specification above).
7. A detailed time management plan.
8. A bibliography showing all the references used.

This plan should be no more that 30 pages in length (not including appendices).

Two copies of this plan should be submitted:

- A virtual copy through mydundee
- A paper copy in the submission boxes in lab 0. This will be returned to you with comments written on, for your record.

This is due by **Midnight on Monday the 22nd of October** and is worth 20% of the marks allocated for this course.

## Part 2

Is an elevator pitch for your game design. This should be based on the one page game overview developed as part of the game plan. You will have 3 minutes to pitch you game, followed by 2 minutes for questions. A seminar on presentation skills and how to give pitches will be held on Friday the 26th of October. The pitches will then be delivered during the **Seminar on Friday the 2nd of November**. This aspect is worth 5% of the marks allocated for this course.

## Part 3

This is the actual game itself. There will be no classes in AC31009 after the 2nd of November to allow you to complete this aspect. You should submit the following all on mydundee:

1. The full code for your game
2. A short report (5 pages) detailing:
  - a. Any changes from the project plan and why these were made.
  - b. Where you actually used design patterns and these can be found in the code.
  - c. Where you used the games aspect and where this can be found in the code.
  - d. Anything you would do differently if you were to tackle this project again.
3. A video of up to 2 minutes showing the finished game being played. This can either be made through using screen capturing technology or by using one of the schools flip cameras.

This is all due by **Midnight on Monday the 19th of November** and is worth 25% of the marks allocated for this course.