

**RMIT University**  
**School of Science**  
**COSC2408 Programming Project 1, Capstone Project**  
**Information for Students**

## **1 The Capstone Project**

In a capstone course students are expected to apply the knowledge and skills they have learned throughout the program to a significant group project.

## **2 Group vs Individual**

All projects are group projects.

## **3 External vs Internal**

Some projects have a client from outside RMIT. These are external projects. Eligible students will be able to view the master list of projects and submit preferences. A WIL (Work Integrated Learning) agreement will be needed.

Internal projects run in scheduled tutorial classes with a tutor. There will be 5-6 groups in a tutorial class. Groups will choose from a number of suggested projects.

Formation of groups and allocation of projects will be done in week 1.

To be eligible for an external project you must have a distinction average, ie a GPA of at least 3.0.

## **4 Attendance at Classes**

**External Projects:** You MUST attend the scheduled lecture on the Friday of week 1. In subsequent weeks you must attend any arranged meetings with the client.

**Internal Projects:** You must attend your chosen tutorial class every week. You DO NOT need to go to the scheduled lecture on the Friday of week 1.

There may be project demonstrations and presentations during the semester that will use the Friday lecture time.

## **5 Size of Groups**

**External Projects:** The size of a group will depend on the size and scope of the task required by the client.

**Internal Projects:** There will be 4-5 students in a group.

## 6 Formation of Groups

**External Projects:** Eligible students will be allocated to projects based on their preferences and GPA.

**Internal Projects:** Students will be randomly allocated to groups during the week 1 class.

## 7 Allocation to Groups and Selection of Projects

**External Projects:** A list of projects will be published to the canvas website for this course by the first day of the semester. Eligible students will be able to register project preferences. Allocations to projects will be made by the end of week 1 of the semester.

**Internal Projects:** A list of suggested projects will be published to the canvas website for this course by the first day of the semester. Once the groups are formed, each group will select a project from the suggested projects list.

## 8 Project Difficulty

Project goals and deliverables need to take into account the knowledge and skills of the group. If necessary, the project plan can include the time needed to learn a new tool or system.

## 9 Software Development Project vs Research Oriented Project

There will be two flavours of projects. Some projects will be primarily software development. Other projects will be primarily research oriented. There will be different project management requirements, deliverables and assessment depending on the flavour of the project.

## 10 Assessment

The supervisor and the group will decide the assessment formula by the end of week 3. It is expected that the formula will reflect the project requirements and the mix of individuals in the group. The default formulas below are intended to be a starting point.

### Software Development Project

Analysis and Design	30%
Delivered software	25%
Documentation	15%
Project Planning and Management	10%
Communication with the client (might include presentation)	10%
Weekly Progress Submission (Mandatory)	10%
Total	100%

## Research Oriented Project

Research Report	35%
Code, scripts, experimental runs, data collection	25%
Documentation of code	10%
Project Planning and Management	10%
Communication with the client (might include presentation)	10%
Weekly Progress Submission (Mandatory)	10%
Total	100%

Each student will receive a final mark based on two components (1) a final mark for the project, and (2) their contribution. Students will need to agree on contribution fractions. Supervisors will moderate if necessary. Here are some examples:

1. An excellent project, assessed at 88/100. All students contributed equally, all students get a mark of 88.
2. An excellent project, assessed as 88/100. Four students in the group. Contributions were not equal.  $88 \times 4 = 352$ . There are 352 marks to be distributed. A possible outcome might be 95, 95, 85, 77.
3. A barely acceptable project is marked at 52. All students contributed equally. Everybody gets 52.
4. A barely acceptable project is marked at 52. Five students in the group, contributions not equal, one student did most of the work.  $52 \times 5 = 260$ . A possible outcome might be 85, 46, 43, 43, 43,