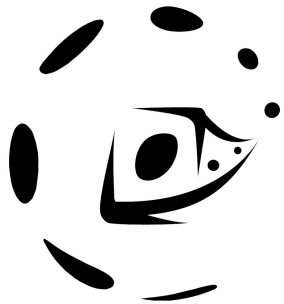
COMP350
Algorithms & Optimisation



FALMOUTH
UNIVERSITY

20 credits
Compulsory for BSc Computing for Games
Brian McDonald

Introduction

On this module you will focusing on methods for creating efficient and optimised code. You will acquire greater knowledge of how savings can be made and how to trade-off various elements to create optimisation. You will grow in your understanding and experience of how to predict outcomes of various approaches and how to evaluate possible strategies requisite for professional practice. You will also investigate the optimisations that required when porting an application to mobile or console platforms.

Aims

This module aims to help you:

- Gain an understanding of techniques used professionally in the management of computing resources.
- Acquire knowledge and experience of concepts used to predict and model resource use.
- Acquire the knowledge and experience to critically evaluation the trade-offs between optimisations and efficiency.

LO	Learning Outcomes	Assessment Criteria
1	Show a basic understanding of creative computing solutions using professional techniques.	Apply professional approach to resource management in the context of constraint.
3	Show a basic development of the ability to reflect critically on and evaluate working methods and solutions.	Profile algorithms to make informed and effective choices about trade-offs to ensure optimisation and efficiency.
6	Show a basic understanding of methods used to help set goals, manage workloads to meet deadlines and to work collaboratively.	Meet deadlines by planning available time effectively plan and manage time to produce a solution efficiently and by the deadline.

Academic Staff	Brian McDonald	
	Dr Edward Powley (Moderator)	
Assignments	Optimisation Task	50%
	Porting Task	30%
	Research Journal	20%
Indicative Hours	Sessions	27 hours
	Directed Reading	18 hours
	Optimisation Task	36 hours
	Porting Task	20 hours
	Port Changes to Collaborative Game	20 hours
	Research Journal	15 hours
	Self-Directed Study	24 hours
	Self-Directed Studio Practice	40 hours
		200 hours

Each study block represents 600-hours of study. This means that 40 hours of study per week (including contact time) is expected, alongside a further 120-hours of studio practice across the assessment period.

Additional Resources

Session Plans & Materials:
`http://learningspace.falmouth.ac.uk/course/view.php?id=1510`

Assignment Briefs:
`http://github.com/falmouth-games-academy/bsc-assignment-briefs/tree/2017-18/comp350`

Reading List:
`http://resourcelists.falmouth.ac.uk/modules/comp350`