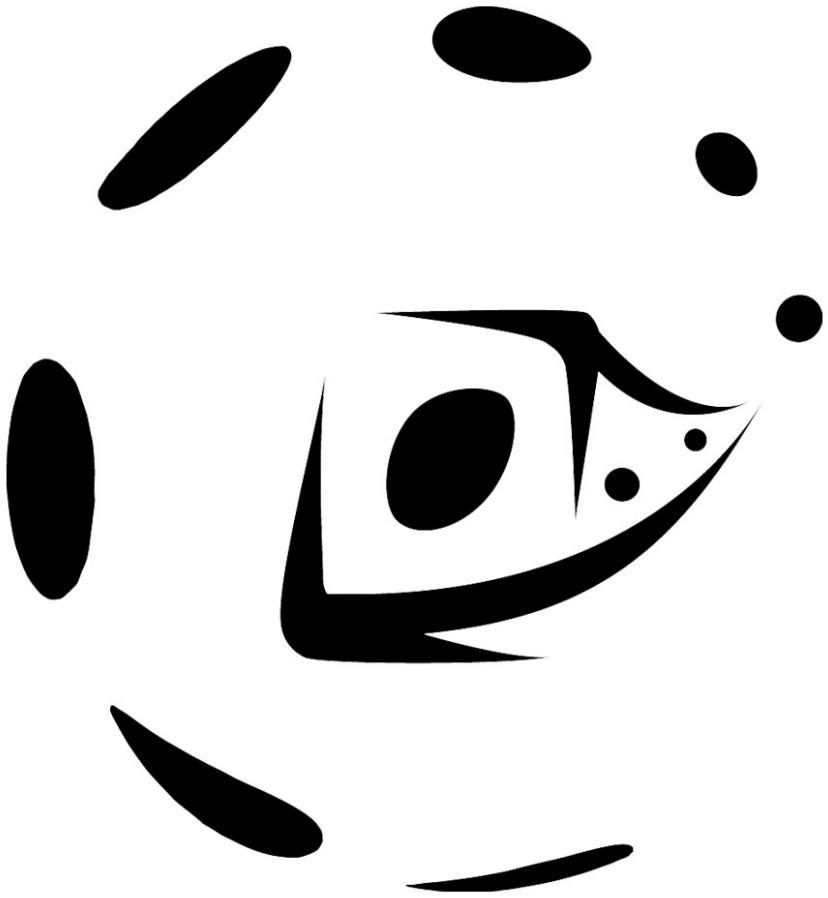
Section 1

Module Guides



1.1 COMP110— Principles of Computing

Introduction

This module is designed to introduce you to the basic principles of computing in the context of digital games. It is designed to complement the other modules, providing a broad foundation on the theories, methods, models, and techniques in computing which will help you to construct computer programs and be able to make use of relevant scholarly sources.

Aims

This module aims to help you:

- Understand the basic principles, terminology, roles, and software development concept that computing professionals apply within a game development context
- Understand how to apply computing theory to practical programming activities
- Understand how to conduct basic software development tasks

LO	Learning Outcomes	Assessment Criteria
1	Show a basic understanding of creative computing solutions using professional techniques.	Demonstrate a basic understanding of computing fundamentals. Apply basic knowledge and understanding of the techniques used in software development. Understand the creative value of maker-style and iterative approaches for the generation of innovation.
2	Show a basic understanding of how to communicate effectively with stakeholders in writing, verbally and through adherence to coding standards.	Show a basic understanding of how to communicate effectively with stakeholders in writing, verbally, and through adherence to coding standards. Annotate software to communicate with others effectively.
3	Show a basic development of the ability to reflect critically on and evaluate working methods and solutions.	Analyse critically the strengths and weaknesses of code and develop an ability to respond to the critical judgements of others.
4	Show a basic understanding of the ability to conduct research, present knowledge in an academic format and apply that research to practice.	Research and explain the use of methodologies used in computing, apply knowledge to practice, and present that knowledge where appropriate in an academic format.
6	Show a basic understanding of methods used to help set goals, manage workloads to meet deadlines and to work collaboratively.	Set goals and manage workloads to meet deadlines using set methodologies and present ideas in a variety of situations with appropriate support.

Academic Staff	Dr Edward Powley	
	Dr Michael Scott (Moderator)	
Assignments	Worksheet Tasks	80%
	Research Journal	20%
Indicative Hours	Sessions	36 hours
	Directed Reading	18 hours
	Worksheet Tasks	56 hours
	Research Journal	14 hours
	Self-Directed Study	36 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=\learningSpaceID`

Assignment Briefs:
`http://github.com/falmouth-games-academy/bsc-assignment-briefs/tree/2017-18/comp110`

Reading List:
`http://resourcelists.falmouth.ac.uk/modules/comp110`

1.2 COMP120— Creative Computing: Tinkering

Introduction

This module is designed to help you learn different ways of engaging with code using practical and explorative methods. You will learn the value of taking a creative approach to computing, taking existing code and modifying it in creative ways. The module will introduce you to the core principal of rapid iteration, where tinkering with existing code can provide the basics on which something new can be built.

Aims

This module aims to help you:

- Understand computing for games
- Understand how to re-purpose and augment code to build something new
- Apply programming skills creatively

LO	Learning Outcomes	Assessment Criteria
1	Show a basic understanding of creative computing solutions using professional techniques.	Focusing on software engineering, show ability to modify and repurpose existing code and create demonstrations of digital programming in response to briefs.
2	Show a basic understanding of how to communicate effectively with stakeholders in writing, verbally and through adherence to coding standards.	Annotate software clearly, articulate clearly, and succinctly your evaluation of your working practice.
3	Show a basic development of the ability to reflect critically on and evaluate working methods and solutions.	Evaluate your working practice showing that you understand the analytical approach required to learn from your practical work.
5	Show a basic understanding of how to approach computing problems to create innovative solutions.	Show ability to creatively repurpose existing code appropriately and understand the fundamentals of a creative approach to computing.
6	Show a basic understanding of methods used to help set goals, manage workloads to meet deadlines and to work collaboratively.	Show understanding of agile methods and meet deadlines by planning available time effectively.

Academic Staff	Brian McDonald	
	Dr Michael Scott (Moderator)	
Assignments	Code Repurposing I — Tinkering Graphics	30%
	Code Repurposing II — Tinkering Audio	70%
Indicative Hours	Sessions	36 hours
	Directed Reading	18 hours
	Graphics Programming	21 hours
	Audio Programming	49 hours
	Self-Directed Programming Practice	36 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=\learningSpaceID

Assignment Briefs:
http://github.com/falmouth-games-academy/bsc-assignment-briefs/tree/2017-18/comp120

Reading List:
http://resourcelists.falmouth.ac.uk/modules/comp120

1.3 COMP150— Game Development Practice

Introduction

This module is designed to introduce you to the foundational principles and processes of professional game development. You will gain an understanding of the way that different components come together to make playable games and how those components are organised through the development pipeline. You will also gain a 'first principles' understanding of how games are designed with a target market in mind, how a strong underlying concept is developed, and how different aspects of creative computing contribute to the process.

Aims

This module aims to help you:

- Understand the basic principles, terminology, roles, tools, and software used in the development of digital games
- Apply foundational knowledge and skills in order to organise and execute a game development project
- Understand how to manage a collective game development project and communicate effectively within the development group

LO	Learning Outcomes	Assessment Criteria
1	Show a basic understanding of creative computing solutions using professional techniques.	Apply basic knowledge and understanding of the professional techniques used to create digital games and employ elementary principles of game development to devise a simple game concept using Agile and iterative methods.
2	Show a basic understanding of how to communicate effectively with stakeholders in writing, verbally and through adherence to coding standards.	Organise your ideas and material to communicate clearly with others; have a working knowledge of Agile methods.
3	Show a basic development of the ability to reflect critically on and evaluate working methods and solutions.	Identify and appraise the main strengths and weakness of your working methods and solutions.
4	Show a basic understanding of the ability to conduct research, present knowledge in an academic format and apply that research to practice.	Research uses of Agile methods and supports within the context of game development.
5	Show a basic understanding of how to approach computing problems to create innovative solutions.	Show a basic understanding of the commercial and enterprise context of the games industry and the professional qualities needed for decision-making within that context.
6	Show a basic understanding of methods used to help set goals, manage workloads to meet deadlines and to work collaboratively.	Deliver a collective game concept on time and to brief, responding appropriately to problems and changes in direction. Choose appropriate means to convey your development ideas.

Academic Staff	Dr Michael Scott	
	Dr Edward Powley (Moderator)	
	Brian McDonald (Moderator)	
Assignments	Agile Essay	30%
	Pre-Production Tasks	40%
	Game Design Pitches	10%
	CPD Tasks	20%
Indicative Hours	Sessions	36 hours
	Supervised Studio Practice	42 hours
	Directed Reading	12 hours
	Agile Essay	21 hours
	Pre-Production Tasks	28 hours
	Game Design & Pitch Preparation	7 hours
	CPD Tasks	14 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=\learningSpaceID`

Assignment Briefs:
`http://github.com/falmouth-games-academy/bsc-assignment-briefs/tree/2017-18/comp150`

Reading List:
`http://resourcelists.falmouth.ac.uk/modules/comp150`