

Games Research & Development (UFCFCK-60-3)

Assignment Specification

Information

This module provides a platform for students to immerse themselves in a rapidly moving stream of innovation, deploying new technologies across a range of contexts and emerging application areas; forming the basis of a valuable portfolio that provides an entry point not only to research and development within the Games industry, but also to academic research and real-world application.

A set of real-life briefs have been presented, each forming the basis for a prospective student project. Students will be expected to identify and propose suitably innovative uses of Games Technology to address these problems; liaising with project stakeholders over the course of the module to bring projects from conceptualisation, through pitching, planning, design, development, iteration and delivery stages, to resulting prototype products that meet the key aspects of the given problem statement.

Assessment for this module revolves around the process outlined above. The assessment for this module comprises of four components: a project report (A1), prototype program(s) (A2), process & milestone documentation (A3), and the final viva presentation & Q&A session(A4).

Details for all four components are provided within this document.

Marks Breakdown:

A1: Project Report 30%

A2: Prototype Program(s) 30%

A3: Process & Milestone Documentation 25%

A4: Viva Presentations + Q & A 15%



MODULAR PROGRAMME

COURSEWORK ASSESSMENT SPECIFICATION

Module Details

Module Code UFCFCK-60-M	Run 18SEP	Module Title GAMES RESEARCH AND DEVELOPMENT
Module Leader Dr Simon Scarle	Module Coordinator	Module Tutors Dr Thomas Bashford-Rogers
Component and Element Number A: PROJ 1		Weighting: (% of the Module's assessment) 30
Element Description PROJECT REPORT (project report)		Total Assignment time

Dates

Date Issued to Students 24/09/2018	Date to be Returned to Students
Submission Place Blackboard Electronic Submission	Submission Date 09/05/2019
	Submission Time 2.00 pm

Deliverables

Project report in .docx and .pdf, with supplemental documentation, submitted as a single .zip file, electronically via Blackboard.

Module Leader Signature

SIMON SCARLE

1. Project Report

The project report should take the shape of an academic or industry research paper, ideally targeting an academic or industry journal, or alternative publication vehicle, appropriate to the project that was undertaken. This report should detail the context of the problem, summarise research undertaken, and

highlight areas of technical innovation achieved within the project in a form suitable for wider dissemination.

The project report aims to assess the following learning outcomes;

On successful completion of this module students will be able to:

- a. Independently disseminate and synthesise research from a range of sources, of industry and academic origin, to propose innovative, viable research and development projects which incorporate game technologies that address academic or industry stakeholder needs. (**A1**, A2)
- b. Utilise a range of technologies from games and related fields of study, to contribute innovative viable software product(s), that meet stakeholder needs and contribute towards postgraduate portfolio. (**A1**, A2)
- c. Critically evaluate and reflect on the suitability of own software product(s) in terms of research, methodology and implementation, as well as stakeholder needs, to produce reports suitable for industry or academic publication. (**A1**, A4)
- d. Engage with stakeholders and industry experts from the pitching of initial ideas to the presentation of final software products, responding to changing requirements, and addressing questions regarding suitability, design and technical implementation of their projects. (**A1**, A2, A3, A4)

1.1. Practical Matters

The report forms a key strand of work within this module, with each stage focusing on different aspects of this process;

- Live block 1: literature review, synthesis of research to inform and guide pitches, proposals and plans for implementation.
- Live block 2: on-going research to support development activities
- Live block 3: emphasis on outcomes, evaluation and reporting

While students will be expected to construct their reports, at least conceptually, alongside their development work, writing workshops will be running early in the April / May assessment period, to support finish and polish of reports for the module.

Students will be expected to identify a suitable vehicle for publishing their report, and agree this (as well with overall report structure) with module tutors within the taught blocks of the module. Due to this, formats and word count expectations may vary slightly between students and projects. **It is not expected that word counts will exceed 5000.**

1.2. Submission Guidelines

Reports should be submitted within a .zip file electronically via Blackboard, in .docx and .pdf formats, by the deadline detailed on the coursework header sheet above.

Note that particular publication vehicles may introduce further demands on hand-ins; these should also be discussed and agreed upon with the module team within the teaching blocks.



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Module Details

Module Code UFCFCK-60-M	Run 18SEP	Module Title GAMES RESEARCH AND DEVELOPMENT
Module Leader Dr Simon Scarle	Module Coordinator	Module Tutors Dr Thomas Bashford-Rogers
Component and Element Number A: PROJ 2		Weighting: (% of the Module's assessment) 30
Element Description PROTOTYPE PROGRAM(S) (prototype program(s))		Total Assignment time

Dates

Date Issued to Students 24/09/2018	Date to be Returned to Students
Submission Place Coursework Hub (Level 1 A Block Underpass)	Submission Date 09/05/2019
	Submission Time 2.00 pm

Deliverables

USB stick containing source and project files + executables relating to the prototype program(s)

Module Leader Signature

SIMON SCARLE

2. Prototype Program(s)

The prototype program(s) (A2) is the software product(s) developed during the course of the module to meet the problem specification and stakeholder requirements. This component will be assessed in terms of design, quality, implementation and, ultimately, viability given the context.

Students should carefully consider contexts in which briefs were presented, and stakeholder feedback throughout the process, to make sure the overall approach developed to solve the problem, as well as the eventual proof of concept and prototype, remain appropriate within that context.

Should questions arise with regards to suitability of stakeholder requirements themselves, before making adaptations, please discuss with your module leader to stay on spec. Formative feedback on software products developed will be provided throughout the process, within the weekly studio sessions.

The prototype program(s) assesses the following learning outcomes:

On successful completion of this module students will be able to:

- a. Independently disseminate and synthesise research from a range of sources, of industry and academic origin, to propose innovative, viable research and development projects which incorporate game technologies that address academic or industry stakeholder needs. (A1, **A2**)
- b. Utilise a range of technologies from games and related fields of study, to contribute innovative viable software product(s), that meet stakeholder needs and contribute towards postgraduate portfolio. (A1, **A2**)

- a. Engage with stakeholders and industry experts from the pitching of initial ideas to the presentation of final software products, responding to changing requirements, and addressing questions regarding suitability, design and technical implementation of their projects. (A1, **A2**, A3, A4)

Submission Guidelines

For this component, a USB stick submission to the Coursework Hub is required. It is expected that this will contain the source and project files as well as executables and user instructions. Should external libraries, data, assets or media be required to ensure functionality of the submitted prototype, this should be submitted together with the main project.

README files should be provided and detail the brief / problem chosen, and instructions relating to use / execution of the prototype required for the task. If in doubt of appropriate submission structure, please consult your module leader.



MODULAR PROGRAMME

COURSEWORK ASSESSMENT SPECIFICATION

Module Details

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Module Code UFCFCK-60-M	Run 18SEP	Module Title GAMES RESEARCH AND DEVELOPMENT
Module Leader Dr Simon Scarle	Module Coordinator	Module Tutors Dr Thomas Bashford-Rogers
Component and Element Number A: PROJ 3		Weighting: (% of the Module's assessment) 25
Element Description PROCESS & MILESTONE DOCUMENTATION (process & milestone documentation)		Total Assignment time

Dates

Date Issued to Students 24/09/2018	Date to be Returned to Students
Submission Place Online submission through module OneNote	Submission Date 09/05/2019
	Submission Time 2.00 pm

Deliverables

Documentation of the research, development and design of the project.
Meeting minutes.
Weekly VLOGS of ongoing progress.

Module Leader Signature

SIMON SCARLE

3. Process & Milestone Documentation

The process and milestone documentation should detail the unfolding of the project in terms of approach, design and methodology, provide details of stakeholder engagement and decisions made based on this interaction. Where the above assessments are largely about product, and dissemination of product, this will be assessed in terms of appropriateness and professionalism in terms of the project development process.

Throughout this module, the projects will be supported through regular individual and team meetings. Students are expected to minute these meetings and clearly note outcomes, actions and any other relevant details. System / code design should be documented through appropriate games / software development diagrams and notations.

The process & milestone documentation assesses the following learning outcomes;

On successful completion of this module students will be able to:

- a. Engage with stakeholders and industry experts from the pitching of initial ideas to the presentation of final software products, responding to changing requirements, and addressing questions regarding suitability, design and technical implementation of their projects. (A1, A2, **A3**, A4)
- b. Effectively explain, discuss and document key technical aspects of projects with fellow students, academics and project team members to scaffold the research and development process. (**A3**)

Submission Guidelines

A course OneNote has been set up for process and milestone documentation for this module. It is expected that all students will maintain their individual spaces of this notebook throughout the module. No separate hand-in for this component is necessary, though note that no changes should be made to this notebook following the due date illustrated above.

The structure of individual spaces on the module OneNote should be set up as follows:

- **Meeting Minutes** This should be populated with minutes from formal and informal meetings and discussions with module staff and stakeholders. Please organise these pages by date.
- **Design Documentation** Should provide documentation detailing the design of the system, as detailed above.
- **Video Logs** Should provide links to the weekly video logs expected through the spring semester.
- **Notes** Other miscellaneous notes relevant to the project (not directly assessed).

	50%	60%	70%
A1 - Report	Criteria: Research, context, output, innovation, and evaluation, quality of writing, clarity and thread of thought / analysis.		
	The report is generally coherent, but may be weak across some of the above criteria and arguments may not always be clearly outlined or followed through. The report demonstrates a burgeoning awareness of the overall field of research, though some relevant areas may have been overlooked. The publication vehicle may not be wholly suitable for dissemination of report.	The report is coherent across most of the above criteria, but may not illustrate insightfulness across all aspects of the work. The report demonstrates a generally good awareness of the overall field of research and the publication vehicle is generally appropriate.	The report is coherent and insightful throughout, across all of the above criteria. The report demonstrates a clear awareness of the overall field of research and is well targeted for publication through a well chosen publication vehicle.
2 - Prototype Program(s)	Criteria: design, quality, implementation and viability given context.		
	The prototype may lack in some aspects of design, scope and implementation, but largely meets the given brief. The innovation in use of technology within the project may	The prototype is generally well conceived, scoped and implemented, though there may be some weakness across the above criteria. There is identifiable	The prototype is well conceived, scoped and implemented across all of the above criteria, demonstrating clear insight and innovation in use of technology to meet the given

A	be questionable.	innovation in use of technology to meet the given problem brief.	problem brief.
A3 - Process & Milestone Documentation	Criteria: Appropriateness and professionalism of development process, stakeholder interaction, video logs and documentation.		
	Documentation demonstrates some management of the development process for the module, but may be lacking in some areas and professionalism in stakeholder interactions may not always be evident. Video logs have been largely completed, but may not always be entirely relevant or useful to showcase significant progress. There is a thread of documentation through the project, but it does not entirely support or reflect all aspects of the overall design, implementation and development process.	Documentation demonstrates appropriate management of most aspects of the development process, and professionalism in stakeholder interactions is largely evident throughout. Video logs are generally illustrative and helpful in tracking progress. Documentation largely supports and reflects the overall design, implementation and development process.	Documentation evidences clear management of the development process and professionalism in stakeholder interactions throughout. Video logs are illustrative and usefully showing weekly implementation progress. Documentation supports and reflects the design, implementation and development process throughout.

Grading Criteria A1-A3

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Module Code UFCFCK-60-M	Run 18SEP	Module Title GAMES RESEARCH AND DEVELOPMENT
Module Leader Dr Simon Scarle	Module Coordinator	Module Tutors Dr Thomas Bashford-Rogers
Component and Element Number A: PROJ 4		Weighting: (% of the Module's assessment) 15
Element Description PRESENTATION viva presentation (15 mins + 15 min Q&A)		Total Assignment time

Dates

Date Issued to Students 24/09/2018	Date to be Returned to Students
Submission Place 3Q22	Submission Date Weeks Commencing 13/05/2019 20/05/2019
	Submission Time Various

Deliverables

A 15-minute presentation / viva with 15-minute Q&A / hands on time.

Module Leader Signature

SIMON SCARLE

4. Viva Presentation + QnA

A panel viva will be the final piece of assessment for the module. This will constitute an up to 15-minute presentation, which is expected to outline the brief and guidance given by the client, principle pieces of research and testing carried out and the conclusions drawn from this. It is expected that the final prototype implementation also be shown and that the viva panel be given a chance to use it / observe it functioning. The session will then end with approximately 15 minutes of QnA.

This viva presentation assesses the following learning outcomes:

- "Critically evaluate and reflect on the suitability of their own software product(s) in terms of research, methodology, and implementation, as well as stakeholder needs, to produce reports suitable for industry or academic publication. (A1, **A4**)"
- "Engage with stakeholders and industry experts from the pitching of initial ideas to the presentation of final software products, responding to changing requirements and addressing questions regarding the suitability, design and technical implementation of their projects. (A1, A2, A3, **A4**)"

Grading Criteria A4

project, and outcomes									
Benchmark	Falls short of 50% benchmark	Generally clear with regards to context and brief. Some project decisions and outcomes may seem arbitrary, be hard to relate, contextually or from a research basis.		Clear regarding context and brief, demonstrating logical progression through project decisions typically based on research, to suitable outcomes.		Clear regarding context and brief, demonstrating significant levels of insight into not just the problem itself, but drawing extensively on suitable surrounding research to inform project decisions and outcome.		Significantly exceeds 70% benchmark - exemplary	
Critical reflection on suitability of software product(s) in terms of research, implementation, innovation & stakeholder expectations									
Benchmark	Falls short of 50%	While there is some critical		Critically reflects across		Critically reflects across		Significantly exceeds	

