ZEIT1110 Computer Games - 2024

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General Course Information

Course Code : ZEIT1110
Year : 2024
Term : Semester 2
Teaching Period : Z2
Is a multi-term course? : No
Faculty : UNSW Canberra
Academic Unit : School of Systems and Computing
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : UNSW Canberra at ADFA
Campus : UNSW Canberra
Study Level : Undergraduate
Units of Credit : 6

<u>Useful Links</u>

<u>Handbook</u> <u>Class Timetable</u>

Course Details & Outcomes

Course Description

Computer Games takes an IT professional and computational view of the technology and industry of computer games. The focus is primarily upon the technological dimension - simulation, graphics, human computer interaction, AI, etc. - with lesser emphasis on the social and business dimensions. Further, the course contains a significant design & development

theme - the generic and game specific principles of design will be examined; while students will critically analyse (from a design perspective) a successful game and develop their own game content. Finally, the course will expose students to the critical role that play has for healthy human development and the way that modern defence forces (and other organisations), including the ADF are employing serious games and utilising the technology of computer games to meet some of their training, education, recruitment, decision-support or other requirements.

Course Aims

The course aims to expose students to a number of key technologies in IT using modern commercial computer games as the lens. The course provides a grounding in design through studying and carrying out game design and shows students the value of play for purposes other than entertainment; usually training but also education and experimentation, with a particular emphasis on the Defence usage of game.

Relationship to Other Courses

This course has no prerequisites.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : On successful completion of the course a student will be able to recognise and differentiate the major technologies, business practices, and social implications of modern computer games, simulations, & virtual environments: Understanding and capable of explaining how those same principles empower and shape other applications of Information Technology in daily life.
CLO2 : On successful completion of the course a student will be able to analyse and apply the principles of good design and development in creation of game content and software - In an individual, team, and inter-team environment.
CLO3 : On successful completion of the course a student will be able to perceive the role of play and games in human society: Not only for entertainment, or as an educational and childhood development tool, but the use of gamification & serious games by organisations.

Course Learning Outcomes	Assessment Item
CLO1 : On successful completion of the course a student will be able to recognise and differentiate the major technologies, business practices, and social implications of modern computer games, simulations, & virtual environments: Understanding and capable of explaining how those same principles empower and shape other applications of Information Technology in daily life.	• Serious or Entertainment Game • Elective Tasks: Technological, Social, and Business Dimensions of Computer Games
CLO2 : On successful completion of the course a student will be able to analyse and apply the principles of good design and development in creation of game content and software - In an individual, team, and inter-team environment.	• Critical Game Design Analysis • Serious or Entertainment Game • Elective Tasks: Technological, Social, and Business Dimensions of Computer Games
CLO3 : On successful completion of the course a student will be able to perceive the role of play and games in human society: Not only for entertainment, or as an educational and childhood development tool, but the use of gamification & serious games by organisations.	• Serious or Entertainment Game • Elective Tasks: Technological, Social, and Business Dimensions of Computer Games

Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams | Echo 360

Other Professional Outcomes

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Additional Course Information

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Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Serious or Entertainment Game Assessment Format: Group	30%	Start Date: 15/07/2024 12:00 AM Due Date: 04/11/2024 09:00 AM
Critical Game Design Analysis Assessment Format: Individual Short Extension: Yes (2 days)	20%	Start Date: 15/07/2024 09:00 AM Due Date: 23/08/2024 05:00 PM
Elective Tasks: Technological, Social, and Business Dimensions of Computer Games Assessment Format: Individual	50%	Start Date: 15/07/2024 09:00 AM Due Date: 25/10/2024 05:00 PM

Assessment Details
Serious or Entertainment Game

Assessment Overview

Teams of 2-4 (typically 3) students conceive and implement a serious or entertainment game prototype, documenting their development journey and choices as they go.

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- CLO2 : On successful completion of the course a student will be able to analyse and apply the principles of good design and development in creation of game content and software - In an individual, team, and inter-team environment.
- CLO3 : On successful completion of the course a student will be able to perceive the role of play and games in human society: Not only for entertainment, or as an educational and childhood development tool, but the use of gamification & serious games by organisations.

Detailed Assessment Description

See the Moodle site for comprehensive details about the expectations, tools available for use, rubrics, etc.

Assessment Length

A game artefact - a runnable game, its source, and accompanying documentation.

Submission notes

Details on the Moodle site - Via your team's MSTeams channel.

Assessment information

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Assignment submission Turnitin type

Not Applicable

Critical Game Design Analysis

Assessment Overview

You are to play and then analyse a successful game from a **design perspective**. That is you will examine key elements of the game's design and how they contribute to the play experience (gameplay) **you personally experience**. This is **not** a game review such as you would find in a game magazine or at such sites as IGN or GameSpot.

Course Learning Outcomes

- CLO2 : On successful completion of the course a student will be able to analyse and apply the principles of good design and development in creation of game content and software - In an individual, team, and inter-team environment.

Detailed Assessment Description

Details on the Moodle site - analysis criteria, expectations, rubrics.

Submission notes

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Assessment information

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Assignment submission Turnitin type

This is not a Turnitin assignment

Elective Tasks: Technological, Social, and Business Dimensions of Computer Games

Assessment Overview

Students construct an eportfolio of technical/social/business of games material, exploring topics of their interest, through selecting from the gamut available. A Viva (in-person interview) at the end of the course invites the student to explain their portfolio in terms of the course goals and outcomes.

Course Learning Outcomes

- CLO1 : On successful completion of the course a student will be able to recognise and differentiate the major technologies, business practices, and social implications of modern computer games, simulations, & virtual environments: Understanding and capable of explaining how those same principles empower and shape other applications of Information Technology in daily life.
- CLO2 : On successful completion of the course a student will be able to analyse and apply the principles of good design and development in creation of game content and software - In an individual, team, and inter-team environment.
- CLO3 : On successful completion of the course a student will be able to perceive the role of play and games in human society: Not only for entertainment, or as an educational and childhood development tool, but the use of gamification & serious games by organisations.

Detailed Assessment Description

Structured as a "Choose your own adventure" game, students select delves, quests, and odysseys (assessment tasks of different sizes) from the range available covering a range of topics that match the lectur ematerial (e.g., AI, software development, simulation, data representation, networks, cybersecurity,...). Students "level up" through the accumulation of points earned in successfully completing delves, quests, and odysseys before facing the final "Boss Fight" (a Viva [short interview] with the course authority in which they interpret their adventures [completed delves, quests, and odysseys] in light of the course learning outcomes.

The course Moodle site contains the list of delves, quests and odysseys; rubrics on the standard for each; and details on the means by which the eportfolio is constructed.

Submission notes

Time of individual Vivas is organised several weeks out from end of session.

Assessment information

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This is not a Turnitin assignment

General Assessment Information

Generative AI may be used to contribute to the submitted material for assessment items 1 (Serious or Entertainment Game) and assessment item 3 (Elective Tasks: Technological, Social and Business Dimensions of Games). Indeed the default expectation (but not a requirement) is that students will use generative AI for elective task (assessment item 3) research and report generation.

In all cases of generative AI usage a full audit-trail must be submitted with the assessment piece itself. That audit trail includes the following: AI tool (e.g., Lllama 3, Copilot, ChatGTP 3.5, ...), date(s) of interaction, and all prompts and responses from start through to final product. In other words sufficient detail that the marker could recreate the same output. Failure to provide this equates to the student asserting the work is entirely their own (and hence opens them to the possibility of an academic misconduct investigation).

It is worth noting the following:

1. Assessment Item 1's rubrics mark it clear that marks are accumulated for the student's own work. Due to the scale of game creation, student teams can employ assets created by others (human or AI) - they simply aren't allocated marks for other's work. There is a flexible marking scheme where core functionality is marked with the team then nominating the other aspects they wish marks allocated for.
2. Assessment Item 3 concludes with a Viva (an interview with the course convenor or delegate) in which the student is expected to synthesis their individual elective tasks and interpret them relative to the course learning outcomes. The conversation (Viva) lead will structure that conversation - however no AI assistance will be available during the viva.

Grading Basis

Standard

Requirements to pass course

Achieve a composite mark of at least 50 out of 100.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 15 July - 19 July	Lecture	1. Introduction 2. Play
Week 2 : 22 July - 26 July	Lecture	3. Gameplay 4. Game Elements
Week 3 : 29 July - 2 August	Assessment	TBSD - First evaluation commences at end of week.
	Lecture	5. Game Design 6. Game Development
	Group Activity	Team formation must be complete.
Week 4 : 5 August - 9 August	Lecture	7. Game Creation (Unity) 1 8. History & Genres
Week 5 : 12 August - 16 August	Assessment	TBSD - Second evaluation commences at end of week.
	Lecture	9. Serious Games 10. Game Creation (Unity 2)
Week 6 : 19 August - 23 August	Assessment	Design Analysis due at end of week.
	Group Work	Game Pitch due at end of week.
	Lecture	11. Graphics 12. Simulation
Week 7 : 9 September - 13 September	Assessment	TBSD - Third evaluation commences at end of week.
	Lecture	13. AI 14. Data Representation
Week 8 : 16 September - 20 September	Lecture	15. Hardware 16. HCI
Week 9 : 23 September - 27 September	Assessment	TBSD - Fourth evaluation commences at end of week.
	Lecture	17. Serious Military Games 18. Game Creation (Unity) 3
	Group Work	Alpha prototype to be available by end of week.
Week 10 : 30 September - 4 October	Lecture	19. Social Impact 20. Cybersecurity
Week 11 : 7 October - 11 October	Assessment	TBSD - Fifth (2nd last) evaluation commences at end of week.
	Lecture	
Week 12 : 14 October - 18 October	Presentation	Teams presenting their game commences.
	Other	Individual TBSD Vivas commence.
	Lecture	21. Networks & Multi-player 22. Business of Games
	Group Activity	Feedback for Alphas to be complete.
Week 13 : 21 October - 25 October	Presentation	Teams presenting their games concludes.
	Other	Individual TBSD Vivas continue.
	Assessment	Sixth and Final TBSD evaluation commences at the end of the week.
	Assessment	Teams submit their game artefact and accompanying documentation by the Monday of exam week.

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

General Schedule Information

The standard weekly rhythm is two 1-hour lectures per week and a single (option of several) 2-hour lab.

TBSD Elective tasks are evaluated fortnightly on the odd weeks, commencing in Week 3, with the Viva at the end of the session. The team-developed game (and supporting documentation) is due at the end of session.

Course Resources

Prescribed Resources

None.

Recommended Resources

Links to useful resources (such as tutorials on the various tools used) will be provided via the Moodle site.

Additional Costs

None.

Course Evaluation and Development

UNSW's MyExperience is used to obtain feedback and as part of the reflection portion of the TBSD Elective tasks, students are invited to reflect upon the course structure, assessment, and approach. Multiple adjustments have been made to the course in response to the feedback received from the student body. Some of these adjustments include reweighting of assessment items, and explicit but flexible rubrics.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Spike (Michael) Barlow		15/205		Varied - open door but busy (best to make an appointment)	No	Yes
Lab supervisor	Wasura Wattearachchi		-	Contact via Teams	During labs	No	No
	Mahtab Mohtasham Khani		-	Contact via Teams	During labs only.	No	No

Other Useful Information
School-specific Information

The Leaning Management System

Moodle is the Learning Management System used at UNSW Canberra. All courses have a Moodle site which will become available to students at least one week before the start of semester. Please find all help and documentation (including Blackboard Collaborate) at the Moodle Support page.

UNSW Moodle supports the following web browsers:

• Google Chrome 50+

• Safari 10+

Internet Explorer is not recommended. Addons and Toolbars can affect any browser's performance.

Operating systems recommended are:

• Windows 10,

• Mac OSX Sierra,

• iPad IOS10

Further details:

[Moodle System Requirements](#)

[Moodle Log In](#)

If you need further assistance with Moodle:

For enrolment and login issues please contact:

IT Service Centre

Email: itservicecentre@unsw.edu.au

Phone: (02) 9385-1333

International: +61 2 9385 1333

For all other Moodle issues please contact:

External TELT Support

Email: externalteltsupport@unsw.edu.au

Phone: (02) 9385-3331

International: +61 2 938 53331

Opening hours:

Monday – Friday 7:30am – 9:30 pm

Saturday & Sunday 8:30 am – 4:30pm

[Study at UNSW Canberra](#)

Study at UNSW Canberra has lots of useful information regarding:

• Where to get help

• Administrative matters

• Getting your passwords set up

• How to log on to Moodle

• Accessing the Library and other areas.

[UNSW Canberra Student Hub](#)

For News and Notices, Student Services and Support, Campus Comminity, Quick Links, Important Dates and Upcoming Events

School Contact Information

Deputy Head of School (Education): Dr Erandi Hene Kankanamge

E: e.henekankanamge@adfa.edu.au

T: 02 5114 5157

Syscom Admin Support: syscom@unsw.edu.au

T: 02 5114 5284

Syscom Admin Office: Building 15, Level 1, Room 101 (open 10am to 4pm, Mon to Fri)