

## Liverpool John Moores University

Title: SERIOUS GAMES AND GAMIFICATION  
Status: Definitive  
Code: **7105COMP** (121326)  
Version Start Date: 01-08-2021

Owning School/Faculty: Computer Science and Mathematics  
Teaching School/Faculty: Computer Science and Mathematics

Team	Leader
Syed Naqvi	Y

**Academic Level:** FHEQ7  
**Credit Value:** 20  
**Total Delivered Hours:** 33  
**Total Learning Hours:** 200  
**Private Study:** 167

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	11
Workshop	22

**Grading Basis:** 50 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Design and critical analysis of serious game application	100	

### Aims

*To provide the underpinning knowledge, concepts and principles of gamification.*  
*To provide an opportunity to apply the principles and techniques of gamification to design a game-based solution to a specific domain.*  
*To be aware of the game technologies available for creation of a serious game application.*  
*To demonstrate an awareness of the serious games industry, its main practitioners and ethical issues.*

## Learning Outcomes

After completing the module the student should be able to:

- 1 Discuss the game-related concepts, application of gamification and the ethical issues surrounding gamification.
- 2 Apply the appropriate gamification techniques to a real-world application or setting.
- 3 Design an immersive serious game for a specific domain using appropriate game technology and digital content creation tools.
- 4 Critically evaluate the design of a serious game and gamification application to a specific domain.

## Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Design and critical analysis	1	2	3	4
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## Outline Syllabus

*Theory & Cognitive Skills: Industry trends, Serious games Platforms, The Serious Games Industry, Ethical Considerations of Serious Game Implementation, Problem Solving using Serious Games, Serious Game Narrative, Project and Risk Management for Serious Games.*

*Gamification & Practical Skills: Game art/design Theory vs Application, Gamification and Games, Gamification Versus Serious Games, Elements of Games Design, Psychology and Motivation Theories, Application of Gamification in Real World, challenges and Implications.*

*Serious Games Transferrable Skills: Serious Games in Real World, Serious Games and Taxonomy of Serious Games, Games Ontology, Games Technology and Digital Content Creation, Gamification and Serious Games Design: Techniques and Pitfalls, Serious Games Prototyping, Simulation Design.*

## Learning Activities

Lectures – to deliver the theory and concepts on serious games and gamification.

Workshop – Tutor-led design and development activities which will enable the students to comprehend the principles of serious game design and associated technologies for the implementation of a serious game prototype.

Further exercises – additional exercises for students to work on in their own time.

Directed learning – provides additional reading to enable workshop work to be completed.

Learning materials can be accessed digitally via University Virtual Learning Environment (VLE).

## **Notes**

The module focuses on the mechanism of gamification, its application and the issues surrounding the topic. It also focuses on the process of designing serious games and introduces the relevant toolsets to the students. In the coursework, students will be working in team to apply gamification to a problem domain and design serious game treatment.