## Module Descriptor 2016/17
School of Computer Science and Statistics.

<table>
<thead>
<tr>
<th><strong>Module Code</strong></th>
<th>CS4098</th>
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<tbody>
<tr>
<td><strong>Module Name</strong></td>
<td>Group Design Project</td>
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<tr>
<td><strong>Module Short Title</strong></td>
<td>N/a</td>
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<tr>
<td><strong>ECTS weighting</strong></td>
<td>10</td>
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<tr>
<td><strong>Semester/term taught</strong></td>
<td>2nd Semester</td>
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<tr>
<td><strong>Contact Hours</strong></td>
<td>Lecture hours: 11  Lab hours: 0  Tutorial hours: 11  Total hours: 22</td>
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<tr>
<td><strong>Module Personnel</strong></td>
<td>Lecturing staff: Dr Andrew Butterfield, Dr John Noll (UL)</td>
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### Learning Outcomes
On successful completion of this module, students should be able to:
- Describe the complete process of working within a team in order to develop an interactive application, such as a computer game
- Implement an Agile development methodology
- Describe the challenges of working in an inter-disciplinary team, including developing good management and communication practices and how to schedule multiple concurrent tasks meeting interim delivery dates
- Use software tools for managing the project, including source code control, issue tracking systems, implementation and testing
- Deploy a complete end-to-end process for developing an application from concept, through design, development and implementation.

Class meetings will be devoted primarily to discussion of readings and issues that arise as the project progresses; we will have some in-class exercises as well. As such, class participation is important and will be part of the grade.

### Module Learning Aims
The goal of this project is to promote teamwork and also to allow students to use their individual skills and experiences within the context of developing defined projects from specification to delivery. A key aim is to develop student’s abilities in framing design problems and working iteratively to achieve a working solution. Instruction will be provided in Agile development methodologies and facilities will be provided in order to promote close collaboration between team members.

A project supervisor will meet with each team weekly and will advise on setting up the team structure including the assignment of roles and responsibilities within the team and on reporting systems both internally and externally.
Weekly "peer" code and design reviews are a core component of the delivery of the module. These are to encourage a team approach to learning and introduce the practicalities of software quality control.

**Module Content**
Instruction will be provided in Agile development methodologies and facilities will be provided in order to promote close collaboration between team members. The development of the project will be structured as two “releases”, each of four weeks in duration. Each week, the current state of progress is assessed and discussed, both in the lectures and in the group meetings.
Main topics covered:
- Principles of Agile Development
- Practise of Agile Development
- Ensuring correct “delivery” of software

Comparisons of related development styles: SCRUM, Lean.

**Recommended Reading List**
Agile Software Development with Scrum, Ken Schwaber & Mike Beedle, Prentice Hall (October 21, 2001)

**Module Pre Requisite**
An ability to program, at a level typical for rising SS Computer Science students.

**Module Co Requisite**
N/A

**Assessment Details**
Assessment is based on the project development work done, broken down as follows:
10% Individual Class Contribution: based on involvement during the class contact hours: lectures and group meetings.
10% Individual Group Contribution: based on involvement in group activities outside class contact hours, assessed using peer evaluation.
80% Group Achievement: based of features delivered at each of the two release points, both worth half of the total marks.

**Module approval date**
N/a

**Approved By**
N/a

**Academic Start Year**
N/a

**Academic Year of Data**
N/a