

Computational Creativity (CC) is a new branch of Artificial Intelligence and Cognitive Science that explores the potential of machines to perform tasks in ways that would be considered creative if performed by a human, or to generate outputs that would be considered novel and interesting if generated by a human. As a field, CC focuses primarily on the latter, to explore the generative potential of machines and to focus on the building of software systems that construct original artifacts (whether linguistic as in stories, poems, jokes, slogans, tweets, etc. or visual such as collages, paintings, patterns etc. or musical such as jazz riffs, pieces of classical music, etc.)

Given its focus on creativity in humans and machines, a course on CC necessarily mixes elements of cognitive science, psychology and philosophy into its core computational structure. The course should appeal to students with an interest in creativity, or an interest in AI that is not served by courses that emphasis problem-solving. The course will be delivered through lectures and practical sessions, and will require students to build generative systems of their own. Weekly assignments will dovetail with the course project, so that work initiated in the assignments (and incrementally build upon each week) will be completed in the project. Lectures will involve instruction, discussion and debate about the nature of creativity, the potential of machines to be creative, and the practicalities of building creative systems.

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<div style="text-align:center;"><p>Curricular information is subject to change</p></div>

What will I learn?

Learning Outcomes:<p>On successful completion of this module the learner will be able to:</p>1. Understand the relevant concepts in the philosophy of AI, psychology and computer science as their pertain to human and machine creativity2. Understand how the study of machines can inform our understanding of human cognition, and vice versa, with relation to dominant theories3. Build their own generative systems in a programming language like Java (e.g. as in the construction of an automated Twitterbot)4. Know how to access and re-use existing Creative systems on the Web4. Understand how to evaluate generative/creative systems empirically</div>

How will I learn?

Student Effort Hours:

Student Effort Type	Hours
Lectures	24
Practical	18
Autonomous Student Learning	80
Total	122

Am I eligible to take this module?

<div class="subHeadCB">Requirements, Exclusions and Recommendations</div>

Learning Recommendations:

<p>Artificial Intelligence (though not necessary)</p>

<div class="subHeadCB">Module Requisites and Incompatibles</div>

Pre-Requisite:

COMP30050 - Software Engineering Project 3

How will I be assessed?

Description	% of Final Grade	Timing
Examination: < Description >	60	2 hour End of Trimester Exam
Project: Started via assignments 1 thru 4	20	Unspecified
Continuous Assessment: Assignment 4	5	Unspecified
Continuous Assessment: Assignment 3	5	Unspecified
Continuous Assessment: Assignment 1	5	Unspecified
Continuous Assessment: Assignment 2	5	Unspecified

What happens if I fail?

<p><u>Compensation</u></p>

<p>This module is not passable by compensation</p>

<p><u>Resit Opportunities</u></p>

<p>In-semester assessment</p>

<p><u>Remediation</u></p>

<p>If you fail this module you may repeat the course; if you fail the written exam only you may resit theexam.</p>

Reading List

<div class="pageBreak"><nav class="white-box no-left-arrow zero-top-margin">

<h1 class="printOnly"> UCD Course Search

Computational Creativity (COMP47410) </h1><h3 class="printOnly">Academic Year 2018/2019</h3><p class="printOnly">The information contained in this document is, to the best of our knowledge, true and accurate at the time of publication, and is solely for informational purposes.

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<h4 class="noPrint">Computational Creativity (COMP47410)</h4>

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<dt>Subject:</dt>

<dd>Computer Science</dd>

<dt>College:</dt>

<dd>Science</dd>

<dt>School:</dt>

<dd>Computer Science</dd>

<dt>Level:</dt>

<dd>4 (Masters)</dd>

<dt>Credits:</dt>

<dd>5.0</dd>

<dt>Semester:</dt>

<dd>Semester Two</dd>

<dt>Module Coordinator:</dt>

<dd>Assoc Professor Tony Veale</dd>

<dt>Mode of Delivery:</dt>

<dd>N/A</dd>

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<dt>How will I be graded?</dt>
<dd>40% </dd>

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Page</button>
<span style="font-size:0.8em"><em>(<a href="https://www.google.com/chrome/" target="_blank">Google Chrome</a> is recommended when printing
this page)</em></span></div>

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