<div class="printBefore">
<h1 class="pageTitle">COMP40260 Connectionism and Dynamical Systems</h1>
<h2>Academic Year 2018/2019</h2>

The theory and practice of modeling with artificial neural networks will be presented. Models are closely related to human cognitive processes in general and to developmental processes and learning in particular. We will also cover basic concepts from dynamical systems theory and see how these are applied in modelling human behavior.
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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 completing this module, students will have acquired the following knowledge: 1) Understanding of the foundations of connectionism and artificial neural networks; 2) Understanding of the problem area in which neural networks have usefully been applied; 3) Understanding of the opportunities and limitations of connectionist simulation of human cognitive abilities, with a special focus on human development, and, 4) Understanding of the relationship between models and data with specific focus on connectionist models, and will be able to do the following: 5) Design and apply simple neural networks using one of several customized software packages, 6) Analyze the perfromance of a network during and after training, and 7) Relate network performance to the specific details of an empirical problem.</p>

How will I learn?

Student Effort Hours:

Student Effort Type	Hours
Lectures	24
Computer Aided Lab	24
Specified Learning Activities	14
Autonomous Student Learning	88
Total	150

Am I eligible to take this module?

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

Learning Recommendations:

<p>Familiarity with elementary statistics, including distributions and the theories of linear correlation and regression will be assumed.</p>

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

How will I be assessed?

Description	% of Final Grade	Timing
Continuous Assessment: Several small written exercises	75	Varies over the Trimester
Essay: Brief essay (2000 words)	25	Coursework (End of Trimester)

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 resit, repeat or substitute where permissible</p>

Reading List

<div class="pageBreak"><nav class="white-box no-left-arrow zero-top-margin">
<h1 class="printOnly"><img src="https://www.ucd.ie/t4cms/ucdcollegesandschools_logo.png"> UCD Course Search
Connectionism and Dynamical Systems (COMP40260) </h1><h3 class="printOnly">Academic Year 2018/2019</h3><p class="printOnly">The
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purposes. University College Dublin accepts no liability for any loss or damage howsoever arising as a result of use or reliance on this
information.</p>
  <h4 class="noPrint">Connectionism and Dynamical Systems (COMP40260)</h4>
  <dl>
    <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>7.5</dd>

    <dt>Semester:</dt>
    <dd>Semester Two</dd>
    <dt>Module Coordinator:</dt>
    <dd>Assoc Professor Fred Cummins</dd>
    <dt>Mode of Delivery:</dt>
    <dd>N/A</dd>

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

  </dl>
<div class="noPrint" style="text-align:center; margin-top:10px;"><button class="menubutton" onclick="window.print()"><i class="fa fa-print fa-fw"> Print
Page</button>
(Google Chrome is recommended when printing
this page)</div>

</nav>
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