

This module covers introductory probability and statistical inference, focusing on understanding concepts and methodologies. Topics include: descriptive statistics, probability, sampling distributions, confidence interval estimation, hypothesis testing and regression.

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

What will I learn?

Learning Outcomes:
<p>Having successfully completed this module, students will be able to:- Summarise a data set using appropriate graphical and numerical methods.- Understand the basic laws of probability and compute probabilities for several different distributions.- Understand the principle of inferential statistics, estimate population characteristics and provide confidence intervals for those estimates.- Understand the principles of hypothesis testing and for a specified investigation, given the background, identify an appropriate test and interpret the results.- Understand and compute the equation of the least squares line, compute confidence intervals and prediction intervals from the least square estimates and perform some basic diagnostic checks on the performance of regression models.</p>

How will I learn?

Student Effort Hours:

Student Effort Type	Hours
Specified Learning Activities	24
Autonomous Student Learning	72
Online Learning	24
Total	120

Am I eligible to take this module?

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

Learning Requirements:

<p>A basic knowledge of linear algebra and calculus</p>

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

Not applicable to this module.

How will I be assessed?

Assessment Strategy

Description	Timing	Open Book Exam	Component Scale	Must Pass Component	% of Final Grade
Examination: End of trimester exam.	2 hour End of Trimester Exam	No	Graded	No	70
Continuous Assessment: Online assessments	Throughout the Trimester	n/a	Graded	No	30

<div class="row">
<div class="col-sm-6">Carry forward of passed components
No</div>
</div>

What happens if I fail?

Resit In	Terminal Exam
Spring	Yes - 2 Hour

Assessment feedback

<div class="subHeadCB">Feedback Strategy/Strategies</div>
<p>* Feedback individually to students, post-assessment
* Group/class feedback, post-assessment
</p>
<div class="subHeadCB">How will my Feedback be Delivered?</div>
<p>Not yet recorded.</p>

Reading List

Associated Staff

Name	Role
John O'Sullivan	Lecturer / Co-Lecturer

<div class="pageBreak"><nav class="white-box no-left-arrow zero-top-margin">
<h1 class="printOnly"> UCD Course Search
Introduction to Data Analytics (Online) (STAT40720) </h1><h3 class="printOnly">Academic Year 2019/2020</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. 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">Introduction to Data Analytics (Online) (STAT40720)</h4>
<dl>
<dt>Subject:</dt>
<dd>Statistics & Actuarial Science</dd>
<dt>College:</dt>
<dd>Science</dd>
<dt>School:</dt>
<dd>Mathematics & Statistics</dd>
<dt>Level:</dt>
<dd>4 (Masters)</dd>
<dt>Credits:</dt>
<dd>5.0</dd>

<dt>Trimester:</dt>
<dd>Autumn</dd>
<dt>Module Coordinator:</dt>
<dd>Dr Michael Salter-Townshend</dd>
<dt>Mode of Delivery:</dt>

<dd>Online</dd>
<dt>Internship Module:</dt><dd>No</dd>

<dt>How will I be graded?</dt>
<dd>Letter grades </dd>

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<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>

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