

This module provides students with a comprehensive understanding of data science concepts and applications to the field of sustainable finance and business. The module introduces students to the data value chains underpinning sustainable finance and business decision making, to the statistical techniques for modelling the impacts and progress towards the Sustainable Development Goals (SDGs) and to data driven approaches to identifying green- washing in environmental reporting. The module will also critically review whether and how new financial technologies (such as AI or blockchain) may be used to solving sustainable development issues. The module features seminars from data science professionals working on sustainable development issues, as well as a practical data science group project.

Curricular information is subject to change

What will I learn?

Learning Outcomes:

On successful completion of this module students should be able to:

1. Explain how different statistical techniques can be applied to the modelling and monitoring of SDGs.
2. Demonstrate a comprehensive understanding of the practical implementation of green data science projects.
3. Critically evaluate data completeness and coverage on SDGs.
4. Implement data processes and robustness checks for Anti-Green-Washing.
5. Critically assess whether and how new financial technologies may be applied to the field of sustainable development.

How will I learn?

Student Effort Hours:

| Student Effort Type | Hours |
|-----------------------------|-------|
| Lectures | 24 |
| Autonomous Student Learning | 136 |
| Total | 160 |

Am I eligible to take this module?

Requirements, Exclusions and Recommendations

Not applicable to this module.

Module Requisites and Incompatibles

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 |
|--|--------------------------|----------------|-----------------------|---------------------|------------------|
| Assignment: Online python introductory course | Throughout the Trimester | n/a | Pass/Fail Grade Scale | No | 10 |
| Essay: 3,000 word essay on a current topic in green data science | Week 8 | n/a | Graded | No | 50 |
| Group Project: Group data project | Week 11 | n/a | Graded | No | 40 |

<div class="row">
<div class="col-sm-6">Carry forward of passed components
Yes</div>
</div>

What happens if I fail?

| Resit In | Terminal Exam |
|----------|---------------|
| Summer | Yes - 2 Hour |

Assessment feedback

Not yet recorded

Reading List

<div class="pageBreak"><nav class="white-box no-left-arrow zero-top-margin">
<h1 class="printOnly"> UCD Course Search
Green Data Science (FIN41910) </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">Green Data Science (FIN41910)</h4>
<dl>
<dt>Subject:</dt>
<dd>Finance</dd>
<dt>College:</dt>
<dd>Business</dd>
<dt>School:</dt>
<dd>Business</dd>
<dt>Level:</dt>
<dd>4 (Masters)</dd>
<dt>Credits:</dt>
<dd>7.5</dd>

<dt>Trimester:</dt>
<dd>Spring</dd>
<dt>Module i Coordinator:</dt>
<dd>Dr Theodor Cojoianu</dd>
<dt>Mode of Delivery:</dt>
<dd>Not yet recorded</dd>
<dt>Internship Module:</dt><dd>No</dd>

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

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