

2024 / 25

School of Science and Computing

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**SE
TU**

Ollscoil
Teicneolaíochta
an Oirdheiscirt

South East
Technological
University

Module Descriptor

Data Analytics Project (Computing and Mathematics)

Data Analytics Project (A35501)

Short Title: Data Analytics Project
Department: Computing and Mathematics
Credits: 10
Level: Advanced

Description of Module / Aims

The purpose of the Industry-led Project is to enable the student to apply the knowledge, skills and competencies gained through the academic phase of the course through putting them into practice in a relevant workplace environment. This will allow the students to consolidate, deepen and contextualise their learning and thereby enhance their employability. If a student does not work in a data-rich environment then every effort will be made to find a suitable work placement for them. Where an appropriate work placement is not possible then the student will conduct a project based on data from an industry source under the guidance of an academic supervisor.

Programmes

	stage/semester/status
HDip in Science in Data Analytics (WD_KDAAN_G)	2 / 4 / M

Indicative Content

- A detailed analysis of a large dataset which seeks to address well-formed questions
- The scope of the project must reflect the data analytics context of the programme
- The student completes a project report that reflects the business needs of the organisation
- The host company and the course board will co-operate in allowing the student to complete a work-based project
- Where an appropriate work placement is not available then the student will conduct a project based on data from an industry source under the guidance of an academic supervisor

Learning Outcomes

On successful completion of this module, a student will be able to:

1. Assess workplace/industry-led project problems and utilise knowledge, skills and competencies acquired to develop creative solutions.
2. Relate theory to practice and contextualise the theoretical knowledge gained in the programme to a relevant area of professional practice.
3. Develop advanced communication and interpersonal skills and communicate effectively in a professional manner.
4. Critique the learning experience resulting from the industry-led project.
5. Present their work to an industry and academic panel.
6. Evaluate personal skills and competencies along with strengths and areas for further growth and development.

Learning and Teaching Methods

- Students will undergo an induction briefing prior to the beginning of the placement and have access to an academic supervisor during the placement period.
- The applied learning portfolio is designed to foster self-reflection on the learning gained through participation in the work placement.
- There will be ongoing interaction between the student and their project supervisor and the work-placement co-ordinator, where appropriate.
- Where appropriate, an industry mentor will be provided to provide input and guidance from the employer's perspective.

Learning Modes

Learning Type	F/T Hours	P/T Hours
Tutorial	6	6
Independent Learning	264	264

Assessment Methods

	Weighting	Outcomes Assessed
Final Project	100%	1,2,3,4,5

Assessment Criteria

<40%: Failure to incorporate feedback. Failure to competently demonstrate understanding of work.

40%–49%: Produces working, tested solution to minimum requirements. Produces full set of documentation. Able to demonstrate own work in competent manner.

50%–59%: As above and produces a working, tested solution to meet most requirements (unless failure to do so is justified). Documentation and reports are clear and of good quality. Comprehensive knowledge of tools and technologies.

60%–69%: As above and requirements fully met unless failure to do so is justified. Demonstrates ability to solve unfamiliar technical problems. Shows good judgement in technology selection. Documentation shows evidence of ability to see limitations or potential in approaches used.

70%–100%: As above and produces an excellent, professional calibre stand-alone system with equally excellent documentation. Demonstrates ability to abstract ideas and reflect on the process.

Supplementary Material(s)

- "ASET Good Practice Guide for Work based and Placement Learning in Higher Education." <https://www.asetonline.org/content/uploads/2017/09/ASET-Good-Practice-Guide-eWBPL.pdf>
- "Effective Practice in Industrial Work Placement." https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/hea/private/effective_practice_in_industrial_work_placement_1568036705.pdf
- "Roadmap for Employment - Academic Partnerships: Work placement in third-level programmes." <https://www.cit.ie/c/Meeting-the-needs-of-the-Modern-Workplace3.pdf>
- Herbert, I. and A. Rothwell. *Managing your placement: a skills-based approach*. NY: Palgrave and Macmillan, 2005.