

MRES SUSTAINABLE MATERIALS AND THE ENVIRONMENT

Overview

The MRes in Sustainable Materials and the Environment is a full-time programme running over 12 months from the date of first registration for the programme. We will also offer the opportunity for applicants based in industry to apply to undertake a 2-year part-time MRes. The programme consists of (a) a major research thesis and (b) taught modules in the area of sustainable materials and the environment and on transferrable skills with an emphasis on scientific writing, oral presentations and proposal writing. Students undertake a workload total equivalent to 90 credits over the 12 month programme. The principle element of this is the completion of a 70 credit dissertation of ~ 25,000 words. In parallel, students must also take and pass 20 credits of taught modules

See also Procedures for Submission and Examination of Research Masters Degrees (<https://www.ucc.ie/en/media/support/academicsecretariat/policies/graduatestudiespolicies/ResearchMasterRegulationsApril2021.pdf>)

Programme Requirements

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. 1).

Programme Requirements

| Code | Title | Credits |
|--|--|-----------|
| Students take 90 credits as follows - taught modules to the value of 20 credits and a Major Research Thesis (70 credits): | | |
| Taught Modules | | |
| Core Modules | | |
| Students take modules to the value of 15 credits as follows: | | |
| CM6033 | Sustainable Materials and the Environment | 10 |
| CM6034 | Sustainability in Semiconductors and the Chemical Industries | 5 |
| Elective Modules ¹ | | |
| Students take 5 credits from the following: | | |
| CM4020 | Interfaces & Modelling (5) ² | |
| CM4025 | Advanced Nano Materials (5) ² | |
| CM4112 | Atmospheric Chemistry and Air Pollution (5) ² | |
| CM6027 | Taught Postgraduate Transferable Skills Development (5) | |
| EV4012 | Environmental Impact Assessments (5) | |
| Research | | 70 |
| Students undertake independent research towards completion of a research thesis to a student workload equivalent of 70 credits on a selected topic in Sustainable Materials and the Environment | | |
| Total Credits | | 90 |

¹ Students may elect to take other relevant modules offered by the University and are not listed above to fulfil the elective required with prior approval from the MRes coordinator, research supervisor and Head of School of Chemistry.

² Students who previously took these modules will not be eligible to take them as electives

Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.

Programme Learning Outcomes

Programme Learning Outcomes for the MRes Sustainable Materials and the Environment (NFQ Level 9, Major Award)

On successful completion of this programme, students should be able to:

- Carry out an independent and original research project to address an emerging question in Sustainable Materials and the Environment;
- Design, write and defend a scientific research proposal based in their current research topic or proposed topic;
- Prepare and write a dissertation of their own research project in a critical, logical and systematic manner, in keeping with the standards of postgraduate research
- Approach a research question using their acquired advanced theoretical knowledge and practical understanding in the area of Sustainable Materials and the Environment;
- Describe the application of laboratory methods used in Sustainable Materials and the Environment
- Source, review, critically assess and evaluate relevant primary literature and summarise material for presentation to peers and for inclusion with the research dissertation
- Evaluate their skill set and identify skills that should be acquired
- Develop professional practice skills including teamwork, negotiation, time management scientific writing and communication.