

| Module Code | Module Title | ECTS Credits | Semester/ Duration | % Exam | % CA | Quota | Pre-requisite | Notes | Notes for staff use |
|-------------|---|--------------|-----------------------|--------|------|-------|--|--|---|
| CE7E04 | Waste Management and Energy Recovery | 5 | Semester 2 | 70 | 30 | 999 | Chemistry and environmental engineering background | | Coordinator: Liwen Xiao |
| CE7E05 | Water Quality and Hydrological Modelling | 5 | Semester 2 | 70 | 30 | 999 | basic chemistry | | Coordinator: Laurence Gill & Liwen Xiao |
| CE7E06 | Water Resource Planning and Climate Change | 5 | Semester 2 | 80 | 20 | 999 | No specific pre-requisite, but previous engineering hydrology module helpful | | Coordinator: David O'Connell |
| CE7J01 | Wind Energy | 5 | Semester 2 | 80 | 20 | 999 | None | | Coordinator: Breifni Fitzgerald |
| CE7J06 | Wave and Hydro Energy | 5 | Semester 2 | 80 | 20 | 999 | None | | Coordinator: Biswajit Basu |
| CE7S01 | Geotechnical Engineering | 5 | Semester 2 | 85 | 15 | 999 | Students must have successfully completed an undergraduate module(s) in Soil Mechanics and (or) Geotechnical Engineering | | Coordinator: Brendan O'Kelly |
| CE7S04 | Bridge Engineering | 5 | Semester 2 | 0 | 100 | 999 | None | | Coordinator: Alan O'Connor |
| CE7S05 | Advanced Concrete Technology | 5 | Semester 2 | 90 | 10 | 999 | None | | Coordinator: Roger West |
| CE7S06 | Soil Structure Interaction -instead Offshore geotechnical engineering | 5 | Semester 2 | 80 | 20 | 999 | CEU33A5, CEU44A51 | | Coordinator: David Igoe |
| CE7T04 | Intelligent Transportation Systems | 5 | Semester 2 | 75 | 25 | 999 | Engineering or Sciences Primary Degree | | Coordinator: Bidisha Ghosh |
| CEU11E07 | Mechanics | 5 | Semester 2 | 90 | 10 | 999 | None | | Coordinator: Dermot O'Dwyer |
| CEU11E09 | Engineering Design I: Graphics and CAE | 5 | Semester 2 | 80 | 20 | 999 | None | | Coordinator: Adam Kavanagh Coyne |
| CEU33A04 | Structural Analysis | 5 | Semester 2 | 100 | 0 | 999 | Ability to analyse statically determinate structures | | Coordinator: Dermot O'Dwyer |
| CEU33A08 | Geology for Engineers | 5 | Semester 2 | 100 | 0 | 999 | None | | Coordinator: Sara Pavia |
| CEU33A10 | Surveying and Geo-spatial Planning | 5 | Semester 2 | 50 | 50 | 999 | None | | Coordinator: Julie Clarke |
| CEU33A11 | Fluids and Environment | 5 | Semester 2 | 60 | 40 | 999 | None | | Coordinator: New Coordinator TBC |
| CEU44A01 | Civil Engineering Materials | 5 | Semester 2 | 80 | 20 | 999 | basic chemistry and material science | | Coordinator: Sara Pavia |
| CEU44A02 | Hydrogeology and Engineering Geology | 5 | Semester 2 | 100 | 0 | 999 | None | | Coordinator: David O'Connell |
| CEU44A08 | Transportation | 5 | Semester 2 | 60 | 40 | 999 | None | | Coordinator: |
| CEU44A62 | Structures 2: Advanced Design of Structures | 5 | Semester 2 | 85 | 15 | 999 | None | | Coordinator: Dermot O'Dwyer |
| EE5C01 | Motion Picture Engineering | 10 | Semester 2 | 0 | 100 | 999 | An introduction to DSP and Image Processing would be useful | **Only available to students in year 4 or year 5 of their degree programme** | Coordinator: Anil Kokoram |
| EE5M02 | Microelectronics | 5 | Semester 2 | 80 | 20 | 999 | EEU33C03 or equivalent | | Coordinator: Philip Christie |
| EEMT17 | Spatial Audio | 5 | Semester 2 | 0 | 100 | TBD | Students will need some prior knowledge of the fundamentals of DAWbased audio production, such as that presented in the Electroacoustic Composition 1 module in the first semester of the MMT programme, for example. Limited capacity due to space and resource requirements . Any slots for visiting students will only be available if not fully subscribed by students on the MMT programme. | | Coordinator: Enda Bates |

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| EEP55C24 | Simulations for Geophysical Modelling | 5 | Semester 2 | 40 | 60 | 999 | None | | Coordinator: Biswajit Basu |
| EEP55M08 | Image and Video Processing | 5 | Semester 2 | 75 | 25 | 999 | EEU33C01 (Signals and Systems) | | Coordinator: François Pitié |
| EEU22E10 | Engineering design IV: Project | 10 | Semester 2 | 0 | 100 | 999 | None | | Coordinator: Harun Siljak & Glenn Strong |
| EEU22E12 | Computational Science and Engineering | 5 | Semester 2 | 65 | 35 | 999 | Mathematics (JF), Physics, Basic knowledge of Linear Algebra (JF Level)/Available to students in Year 2 or 3 of degree programme | | Coordinator: Anil Kokoram |
| EEU33C02 | Digital Circuits | 5 | Semester 2 | 80 | 20 | 999 | Successful Completion SF year of BAI programme | | Coordinator: Declan OLoughlin |
| EEU33C03 | Analogue Circuits | 5 | Semester 2 | 85 | 15 | 999 | EEU22E06 or equivalent | | Coordinator: Justin King |
| EEU33C05 | Telecommunications | 5 | Semester 2 | 70 | 30 | 999 | None | | Coordinator: Aleksandra Kaszubowska-Anandarajah |
| EEU33C07 | Digital Systems Design | 5 | Semester 2 | 50 | 50 | 999 | EE1E6 or equivalent | | Coordinator: Shreejith Shanker |
| EEU33E03 | Probability and Statistics | 5 | Semester 2 | 100 | 0 | 999 | Engineering Mathematics (up to Year 2 incl.) | | Coordinator: Bidisha Gosh |
| EEU44C02 | Microelectronic Circuits | 5 | Semester 2 | 80 | 20 | 999 | EEU33C03 or equivalent | | Coordinator: Philip Christie |
| EEU44C08 | Digital Image and Video Processing | 5 | Semester 2 | 75 | 25 | 999 | EEU33C01 (Signals and Systems) | | Coordinator: François Pitié |
| EEU44C21 | Open Reconfigurable Networks | 5 | Semester 2 | 20 | 80 | 999 | None | | Coordinator: Marco Ruffini, Shreejith Shanker |
| ME5B03 | Advanced Thermal Fluid Sciences | 10 | Semester 2 | 15 | 85 | 999 | 4B4 Heat Transfer, 4B13 Fluid Mechanics | | Coordinator: Anthony Robinson |
| ME5BIO3 | Tissue Engineering | 5 | Semester 2 | 75 | 25 | 999 | MEU44BM6 | Co-Requisite: ME5M20 (If MEU44BM6 has not been taken previously) | Coordinator: Daniel Kelly |
| ME5BIO7 | Advanced Medical Imaging | 5 | Semester 2 | 65 | 35 | 999 | None | | Coordinator: Michael Monaghan, Brooke Tornifoglio |
| MEP55BM8 | Active Implanted Devices and Systems | 10 | Semester 2 | 100 | 0 | 999 | 3BIO1 Anatomy and Physiology, 4C5 Digital Signal Processing/ Students must be in a Biomedical Engineering Programme. | | Coordinator: Alejandro Lopes Valdez |
| MEU22E05 | Thermo-fluids | 5 | Semester 2 | 70 | 30 | 999 | None | | Coordinator: Seamus O'Shaughnessy |
| MEU33B01 | Thermodynamics | 5 | Semester 2 | 80 | 20 | 999 | 2E5 Thermo-fluids. Students must have pre-requisite courses taken in heat transfer and fluid mechanics | | Coordinator: Anthony Robinson |
| MEU33B03 | Mechanics of Solids | 5 | Semester 2 | 90 | 10 | 999 | 1E7 Mechanics (or equivalent) and 2E4 Solids and Structures (or equivalent) | | Coordinator: |
| MEU33B05 | Mechanics of Machines | 5 | Semester 2 | 80 | 20 | 999 | MEU11E07 Mechanics | | Coordinator: Ciaran Simms |
| MEU33B07 | Manufacturing Technology I | 5 | Semester 2 | 0 | 100 | 999 | ONLY AVAILABLE TO STUDENTS WHO HAVE TAKEN MEU23B10 Computer added design in semester 1. | | Coordinator: Daniel Trimble |
| MEU44B01 | Mechanics of Solids | 5 | Semester 2 | 85 | 15 | 999 | Students Need to Have completed a similar module like MEU33M03 Mechanics of Solids in their Home University | | Coordinator: Mark Ahearne |
| MEU44B02 | Forensic Materials Engineering | 5 | Semester 2 | 70 | 30 | 999 | 3B4 Mechanical Engineering Materials or equivalent | | Coordinator: David Taylor |
| MEU44B05 | Manufacturing Technology | 5 | Semester 2 | 20 | 80 | 999 | None | | Coordinator: Amir Pakdel |
| MEU44B06 | Manufacturing Systems and Project Management | 5 | Semester 2 | 0 | 100 | 999 | None | | Coordinator: Dr. Shuo Yin and Dr. Garrett O'Donnell |

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| MEU44B09 | Control Engineering | 5 | Semester 2 | 85 | 15 | 999 | None | | Coordinator: Siyuan Zhan |
| MEU44B10 | Turbomachinery | 5 | Semester 2 | 100 | 0 | 999 | 3B1 Thermodynamics, 3B2 Fluid Mechanics, 4B13 Fluid Mechanics | | Coordinator: Charles Stuart |
| MEU44B12 | Introduction to Autonomous Mobile Robotics | 5 | Semester 2 | 30 | 70 | 999 | None | | Coordinator: Adam Coyne |
| MEU44B14 | Engineering Vibration and Noise | 5 | Semester 2 | 75 | 25 | 999 | None | | Coordinator: John Kennedy |
| EEU44C24 (4th year) /EESC04 (5th year) | EESC04 Speech Technology | 5 | Semester 2 | | | | | | Coordinator: Naomi Harte |
| For more information on module descriptors please click the module code oor contact International Engineering <InternationalEng@tcd.ie> | | | | | | | | | |
| Please note that Modules relate to the 2024/25 Academic Year and are subject to change | | | | | | | | | |