

UNIVERSITY COLLEGE CORK
Coláiste na hOllscoile Corcaigh

M.Eng.Sc. in Sustainable Energy
Taught Masters Programme

www.ucc.ie/serg/mengsc.html

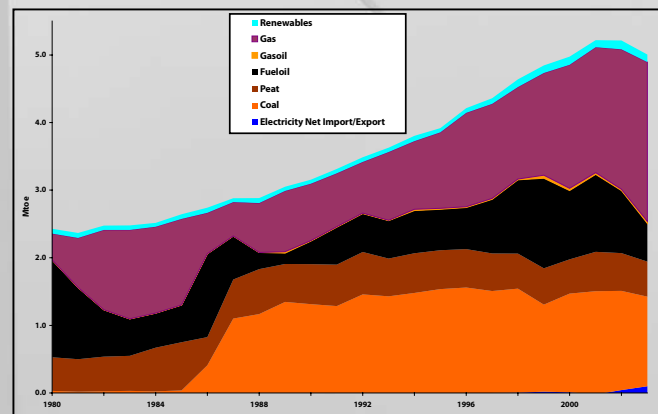


UCC has developed a Masters in Engineering Science in Sustainable Energy, in recognition of the growing international market for sustainable energy systems and the shortage of qualified engineers. This full-time 12 month Degree programme is open to Engineering graduates of all disciplines with an 8 month programme option leading to a Postgraduate Diploma in Sustainable Energy. There is also the option of a 24 month part-time Degree programme. This programme builds on and harnesses UCC's track record in sustainable energy research over the past 25 years.

Sustainable Energy
Electro-technology and Control
Energy in Buildings
Wind Energy
Biomass Energy
Hydro and Ocean Energy
Solar and Geothermal Energy
Electrical Power Systems Analysis
Energy Systems in Buildings
Energy Systems Modelling
Environmental Impacts, Economics & Project Financing

Students will choose 10 taught modules (of the 11 shown in the table – each module comprising 36 lectures) and carry out a preliminary research project within the first 8 months from October. Those who obtain at least 60% in both coursework and the research project are then eligible to undertake a minor research thesis (4 months) over the summer, leading to the award of the Masters degree.

Sustainable Energy Engineering graduates from this UCC programme will have a range of interesting, challenging and rewarding career path opportunities, including within the energy supply industry, in energy consultancy, in technology transfer, in software and modelling development, providing advice to Government and Regulatory bodies, in project management and in research and development. Masters graduates are eligible for direct entry into UCC's Doctoral degree programme in Sustainable Energy.



Graduates will be in a key position to address the energy challenges that face the world in the short to medium term. Global energy consumption is projected by the International Energy Agency (IEA) to grow by 60% between 2004 and 2030 requiring an investment of \$16 trillion. Fossil fuels are expected to account for 85% of this increase. If policies do not change, global energy-related carbon dioxide emissions are forecast to reach 91% above 1990 levels by 2030. The IEA further concludes that the world's vulnerability to supply disruptions will increase as international trade expands. Sustainable energy systems can alleviate the problems caused by such a scenario, providing greater security of supply and reduced environmental impacts.