C2N7-EEC Master of Science in Energy and Economics

PROGRAMME DETAILS
Programme Code: C2N7-EEC
Department: Economics
Main Award: MSC - Master of Science
Full Award Title: Master of Science in Energy and Economics
Level: Postgraduate Taught

LOCATION OF STUDY
Edinburgh | Y | Scottish Borders | N | Orkney | N
Dubai | N | Malaysia | N | Approved Learning Partner | N
Independent Distance Learners | N | Collaborative Learning Partner | N | Other | N

ASSOCIATED AWARDS
Programme Code | Award | Title
C2N5-EEC | PGDIP | Postgraduate Diploma in Energy and Economics
C2N7-EEC | MSC | Master of Science in Energy and Economics
C2NO-ZZZ | PGCERT | Postgraduate Certificate in Energy and Economics

ACCREDITATION
We shall seek accreditation by The Energy Institute.

LEARNING OUTCOMES – SUBJECT MASTERY
Understanding, Knowledge and Cognitive Skills

- Knowledge that covers and integrates the main areas of the economics and energy engineering disciplines, including their features, boundaries, terminology and conventions
- A critical understanding of the principal theories, principles and concepts
- A critical understanding and application of a range of specialised theories, principles and concepts
- Extensive, detailed and critical knowledge and understanding of two specialisms
- Critical awareness of current issues in research and knowledge creation within specialist areas of the two disciplines
- Ability to apply a range of quantitative techniques to different types of data
- Thorough knowledge of the concepts associated with economics and energy engineering
- Understanding and ability to evaluate a range of theories appropriate to research in different aspects of
C2N7-EEC Master of Science in Energy and Economics

Scholarship, Enquiry and Research (Research Informed Learning)

Students will:

- Develop knowledge and understanding of issues in economics and energy engineering
- Plan and execute a significant project of research, development or investigation
- Use a wide range of standard techniques and some specialist research methods in pursuing research-led enquiry
- Source and utilise data from library, internet and database sources
- Review, organise and evaluate evidence and reflect and comment critically on it
- Present a clear and coherent argument on specialised topics

LEARNING OUTCOMES – PERSONAL ABILITIES

Industrial, Commercial and Professional Practice

- Demonstrate critical awareness of the current issues within the discipline, and make informed judgements on the basis of available information and subject knowledge.
- Specialist and critical knowledge, understanding and skills in a number of mainstream and specialist areas within economics and energy technologies.

Autonomy, Accountability and Working With Others

Work autonomously and within teams, as appropriate, demonstrating a capability for both taking and critically reflecting on roles and responsibilities.

Communication, Numeracy & Information and Communications Technology

- Develop and demonstrate skills and techniques in oral and written communication with peers and
academic/industrial staff, using a range of appropriate methods to suit different levels of knowledge and expertise within the audience.

- Develop and demonstrate critical knowledge and skills in the planning and usage of industry standard tools, programming languages and numerical techniques
- Acquire the ability to identify, formulate and resolve problems.

APPROACHES TO TEACHING AND LEARNING

The School is committed to enhancing the student learning experience through its approach to teaching and learning, which is derived from the University’s own Learning and Teaching Strategy.

In the first weeks of study, considerable emphasis is given to assisting students in the return to Higher Education through induction events. These introduce students to the different teaching methods that they will encounter: such as lectures, tutorials and workshops – as well as familiarising students with support services such as the library, computing services and the virtual learning environment. In this programme, considerable emphasis is placed upon ensuring that this support meets the needs of international students, who are least likely to be familiar with the expectations of a British institution. In addition, the School is committed to providing a thorough grounding in scholarship skills at an appropriate level covering matters such as critical approaches to secondary texts and data, academic writing techniques, and reflective learning.

Throughout the degree, teaching emphasises the value of research-led thinking. Building on students' existing study skills, the programme is designed to develop students' professional expertise through individual and/or group-based work and projects, culminating naturally in the completion of a dissertation. Professional development planning also forms an integral part of the programme of studies, so that students graduate with considerably enhanced skills suitable for senior, specialist professional level or managerial employment in careers in business and public service in international contexts. These policies ensure that graduates have high levels of employability and professional career readiness.

Approaches to teaching and learning are examined yearly through course and programme review. These processes are informed by various forms of feedback of which the most important are student feedback, external examiner reports, and evidence of the achievement of learning outcomes from formative and summative assessment.

EDUCATIONAL AIMS OF THE PROGRAMME

The subject-specific aims of the programme are to provide a practical and theoretical grounding in technologies and wider knowledge and skills relevant to the energy and economics/business sectors, for the practicing engineer and/or economic analyst as well as decision-making managers and policy makers.

The programme aims to equip students with a broad yet detailed overview of energy resources conversion, and use; the core tools of economic analysis, with applications to the energy sector; and the socio-economic and environmental impacts of energy-related activities. To do this, the programme provides a broad introduction to current energy issues and specialist engineering and economics knowledge and skills to analyse, appraise, or design energy policy, systems or equipment.

In addition to the subject-specific specialist knowledge and skills, the programme aims to provide a broad range of transferable skills.
The students are expected to apply a mature approach to learning, tackling personal projects and organizing their study. They will learn communication skills both written and oral (they are requested to do presentations as part of their coursework). The mode of assessment of the masters is a mixture of continuous assessment and examination.

ASSESSMENT POLICIES

A range of assessment types are employed in the programme. Formative assessment is used in many courses to provide students and staff with feedback on performance and the achievement of learning outcomes. This feedback is used both to inform course and programme development and to enable the adaptation of learning opportunities to meet the needs of individual students and the cohort of learners. Summative assessment for most courses will involve a combination of coursework and examinations. The format of all assessment is determined by its appropriateness for measuring the learning outcomes of courses and is guided by the School’s ‘Learning and Teaching Strategy’.

Among the forms of assessment used in the programme are essays; written examinations; group and/or individual projects and the dissertation.

PROGRAMME STRUCTURE

Mandatory Courses

<table>
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<tr>
<th>Edinburgh</th>
<th>SBC</th>
<th>Orkney</th>
<th>Dubai</th>
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<th>IDL</th>
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<th>Semester</th>
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<th>Course Title</th>
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<th>SCQF Lvl</th>
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<td>X 1 B51ET</td>
<td>Foundations of Energy</td>
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<td>X 1 C21PE</td>
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<td>X 1 C21EE</td>
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Optional Courses

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COMPOSITION NOTES(PG)

8 taught courses: 2 mandatory, 6 optional and a dissertation.

The mandatory course C21PE Principles of Environmental & Energy Economics (7.5 credits) must be combined with only one of these three optional courses:

1. C21PM Principles of Microeconomics (students with no background in Economics should take this course) OR
2. C21PP Making Economic Policy (students with a background in Economics should take this course) OR
3. C21PN Principles of Macroeconomics (students with a background in Microeconomics, but not Macroeconomics, should take this course).

Note: C21PM and C21PP are taught in the 1st half of the semester; C21PN and C21PE are taught in the 2nd half of the semester.

Student must also choose either C31RM Research Methods OR B81EZ Critical Analysis and Research Project Planning as one of the optional courses.

Mandatory Credits 30
Optional Credits 90
Elective Credits
Dissertation Credits 60
Total 180

AWARDS, CREDITS AND CRITERIA(PG)

Awards, Credits and Levels

<table>
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<tr>
<th>Overall</th>
<th>Specific Requirements</th>
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<tr>
<td>Masters Degree 180</td>
<td>180 SCQF credits including a minimum of 150 credits at Level 11</td>
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<tr>
<td>Postgraduate Diploma 120</td>
<td>120 SCQF credits including a minimum of 90 credits at Level 11</td>
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<tr>
<td>Postgraduate Certificate 60</td>
<td>60 SCQF credits including a minimum of 40 credits at Level 11</td>
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Award Requirements

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<tr>
<th>Overall Course Passes</th>
<th>Overall Mark</th>
<th>Overall Grade</th>
<th>Basis of Overall Mark/Grade</th>
</tr>
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</table>
Master (Distinction) 8+Dissertation 70 A Credit Weighted Average greater than or equal 70% over 8 courses at grades A-C. In addition students may not normally have scored a grade D, E or F in any course, at any assessment opportunity.

Master 8+Dissertation 50 C Credit Weighted Average greater than or equal 50% over 8 courses at grades A-D plus a Dissertation at minimum grade C.

Diploma (Distinction) 8 70 A Credit Weighted Average greater than or equal 70% over 8 courses at grades A-C

Diploma 8 40 D Credit Weighted Average greater than or equal 40% over 8 courses at grades A-E

Certificate 4 40 D Credit Weighted Average greater than or equal 40% over 4 courses at grades A-E

**DURATION OF STUDY**

<table>
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<th>IN MONTHS</th>
<th>Full-time</th>
<th>Part-time</th>
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<td>Masters</td>
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<tr>
<td>Diploma</td>
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<tr>
<td>Certificate</td>
<td>6</td>
<td>12</td>
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**RE-ASSESSMENT (PG)**

1. A student who has been awarded a Grade E or F in a course may be re-assessed in that course. A student who has been awarded a Grade D in a course may be re-assessed in that course in order to proceed to or be eligible to receive the award of Masters.

2. A student shall be permitted only one re-assessment opportunity in a maximum of three taught courses. In the case of extenuating circumstances, the Progression Board may permit a further one opportunity (i.e. Third Opportunity).

3. Any further re-assessment opportunities in a course will require the approval of the Postgraduate Studies Committee.

4. A student may be permitted, at the discretion of the Progression Board, to be re-assessed in the dissertation, project or other supervised research component of the course of study.

**PROGRESSION TO DISSERTATION/PROJECT**

In accordance with University Regulations, to progress to Masters level a minimum of Grade C is required.