Programme Specification

Programme award and title: Cert, Diploma, MSc
Energy and the Environment

SCQF Level: 11  SCQF Credit Value: 180

Educational aims of the programme:
Concise (e.g. a few sentences), general statement of aims and broad purposes of the programme

- Our programme aims to give students:
- an understanding of the environmental costs associated with different energy technologies
- an awareness of the background to environmental impact assessment with special reference to energy projects and the practical basis for evaluating and mitigating impact.
- an understanding of the economic, social, political and legal frameworks for the energy sector
- a sound training in relevant practical, investigative, research and generic skills that professionals working in the energy-environment sector should possess

Intended programme learning outcomes:
Outline (e.g. one or two paragraphs) of what the student will know, understand and be able to do as a result of their learning, expressed in the categories below. Please consider the contribution made to the student’s personal development planning (PDP) and future employability.

Knowledge and understanding

- The key principles that underpin relevant areas of ecology and environmental science
- Understanding of the economic, political and legislative frameworks within which the energy sector operates
- Protocols for the collection and analysis of data relevant to environmental monitoring and assessment
- The environmental and ecological effects of different forms of energy production, the scope for mitigation of these effects, the ability to recognise good practice.
- A variety of end-user perspectives on the interactions between energy and the environment and an awareness of suitable career goals and opportunities.

Subject-specific skills and other attributes

- Intellectual skills:
  (i) Critical reasoning
  (ii) Analysis and synthesis of information from a variety of sources
  (iii) Formulation and testing of hypotheses using appropriate and available lines of evidence
  (iv) Application of knowledge to address a range of environmental problems and issues
  (v) Understanding of the key theories, principles and concepts within the environmental, social and economic sciences
  (vi) Planning, execution and reporting an original research project focussed on energy-environment relationships

- Intellectual skills are acquired through the teaching and learning programme above. Assessment is via essays and reports, presentations, unseen written examinations and through the dissertation written in journal paper style for the MSc.

- Practical skills:
  (i) Devising research and consultancy projects for both teams and individuals
  (ii) Working in a safe and responsible manner in the field and laboratory
  (iii) Collecting and recording primary data using a range of field techniques
  (iv) Gathering of secondary data from individuals, organisations and databases
  (v) Data analysis and integration using a range of appropriate statistical methods and packages
  (vi) Reporting the results of investigations with appropriate referencing of sources of information
  (vii) Presenting results to an audience
Generic skills (e.g. information skills, communication skills, critical, analytical and problem solving abilities) and other attributes

- (i) Report writing, layout and design, and verbal communication
- (ii) Team working and the allocation of tasks
- (iii) Independent learning towards academic and personal goals
- (iv) IT skills including use of word processing, presentational, spreadsheet, statistical, GIS and image analysis software
- (v) Use of internet, bibliographic databases and other electronic information sources
- (vi) Liaising with individuals, public and private bodies to elicit background information for research.

Learning, teaching and assessment strategies:
Outline (e.g. one or two paragraphs) on overall approach taken to develop and assess learning outcomes, including any distinctive features

- Methods of teaching will vary according to the subject matter but will comprise a combination of traditional lectures, workshops, field trips and small group sessions. At postgraduate level there is an expectation that students can undertake independent learning and become self-reliant in terms of fulfilling most educational tasks. Employers look for self reliance and the ability to undertake independent learning, communication skills, literacy and numeracy. External speakers from industry, consultancy and environmental regulators will also contribute to the course.
- Both examinations and coursework will be used in Assessment with a focus on the use of case studies on different aspects of environmental impact, assessment and monitoring in relation to energy production. Modules will be assessed either by examination and coursework (typically 50:50 weighting) or where appropriate by coursework alone. Coursework will be based on written work and/or oral presentation.

Professional/statutory body accreditation or recognition: n/a

Further details:

Entry requirements: [http://www.external.stir.ac.uk/postgrad/index.php](http://www.external.stir.ac.uk/postgrad/index.php)

Programme structure: [http://www.calendar.stir.ac.uk/](http://www.calendar.stir.ac.uk/)

Relevant Subject Benchmark statement (if applicable): [http://www.qaa.ac.uk/academicinfrastructure/benchmark/default.asp](http://www.qaa.ac.uk/academicinfrastructure/benchmark/default.asp)


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