

**ENERGY TRANSITION SYSTEMS AND TECHNOLOGIES (ON-CAMPUS – SEPTEMBER START)
(MSc/PgDip/PgCert)**

57J91SB1/61J91SVX/62J91SVZ

Duration: MSc 12 months full time and 27 months part time; PgDip 9 months full time and 18 months part time; PgCert 4 months full time and 8 months part time.

Content: The MSc in Energy Transition Systems and Technologies introduces and gives an overview of the topic of energy transition. The focus is on the diverse challenges faced in the context of the energy transition, and multiple technical solutions. As well as technical dimensions, the programme intentionally focusses on non-technical (e.g. economic, policy) aspects of the energy transition as examples of critical elements. The programme also introduces students to systems thinking in the context of energy systems and teaches them some relevant methods for system-level analysis (e.g. GIS, energy system analysis). Upon completion of the programme, students should have an overview of the key issues in energy transition, and be well equipped to address some of them (as they must in their final project) with some of the taught methods.

Students will undertake the project and complete the dissertation in Energy Transition Systems and Technologies which will be defined to be research or industrial relevant.

Candidates shall be required to study the following designated programme of courses:

FULL TIME ROUTE

Session 1

PD5006 Getting Started at the University of Aberdeen (0 credit points)

EG504H Introduction to Energy Transition: Demand, Technology and Economics (15 credit points)

EG504K Carbon Capture, Utilisation and Storage (15 credit points)

Plus one from the following:

EG50M1 Energy from Biomass (15 credit points)

EG503V Solar Energy (15 credit points)

EG503A Geothermal and Hydro Energy (15 credit points)

Plus one from the following:

BU5061 Economic Analysis (15 credit points)

BU5074 Corporate Finance and Accounting for Energy (15 credit points)

GG5065 Introduction to GIS Tools, Techniques, Cartography and Geovisualisation (15 credit points)

Session 2

EG551J Energy Conversion and Storage (15 credit points)

EG554T Energy Systems Integration (15 credit points)

Plus two from the following:

EG552U Marine and Wind Energy (15 credit points)

EG552S Legislation, Economics and Safety (15 credit points)

EG551K Renewable Energy Integration to Grid (15 credit points)

Session 3

EG59F1 Individual Project (60 credit points)

PART TIME ROUTE

Year 1

EG504H Introduction to Energy Transition: Demand, Technology and Economics (15 credit points)

EG504K Carbon Capture, Utilisation and Storage (15 credit points)

EG551J Energy Conversion and Storage (15 credit points)

EG554T Energy Systems Integration (15 credit points)

Year 2

One from the following:

EG50M1 Energy from Biomass (15 credit points)

EG503V Solar Energy (15 credit points)

EG503A Geothermal and Hydro Energy (15 credit points)

Plus one from the following:

BU5061 Economic Analysis (15 credit points)

BU5074 Corporate finance and Accounting for Energy (15 credit points)

GG5065 Introduction to GIS Tools, Techniques, Cartography and Geovisualisation (15 credit points)

Plus two from the following:

EG552U Marine and Wind Energy (15 credit points)

EG552S Legislation, Economics and Safety (15 credit points)

EG551K Renewable Energy Integration to Grid (15 credit points)

EG59F1 Individual Project (60 credit points) (Continues into year 3)

Year 3

EG59F1 Individual Project (60 credit points)

Assessment: By a combination of written examination and course work as prescribed for each course. In addition, MSc candidates must submit a dissertation on their individual project and may be required to undergo an oral examination. The Degree of MSc shall not be awarded to a candidate who fails to achieve a CGS Grade of D3 or above in the individual project, irrespective of their performance in other courses.