

# Civil Engineering and the University of Strathclyde

## The Department

Civil Engineering at Strathclyde is one of the first departments in the UK to fully embrace the importance of the environment in today's world. It is a strong and forward-looking department and the ideal choice for anyone interested in undertaking a postgraduate degree that will benefit them in the job market. Our strong links to industry and public bodies are a unique feature of the Department and are integral to our approach to research and education. These links also provide our students with valuable contacts outside the world of academia. The Department is one of the main providers of graduates in Civil Engineering and Environmental Health in Scotland.

The Department leads the Joint Research Institute in Environment, Infrastructure and Transportation, formed in 2007 under the Glasgow Research Partnership in Engineering (GRPE). The GRPE was funded to promote multidisciplinary collaboration between leading research groups in the west of Scotland and to provide world-class joint research facilities (see [www.grpeng.ac.uk](http://www.grpeng.ac.uk)). Member universities include Strathclyde, Glasgow, Glasgow Caledonian University and the University of the West of Scotland. In addition, the Department hosts the David Livingstone Centre for Sustainability (DLCS) which aims to promote

cross-disciplinary programmes in teaching and research in the areas of environment and sustainability across the whole University (see [www.strath.ac.uk/dlcs](http://www.strath.ac.uk/dlcs)).

## The University

The University is located in the heart of Glasgow, the UK's fourth largest city. Glasgow is one of the liveliest cities you'll ever experience. It is famous for its shopping, vibrant music scene and brilliant nightlife, as well as its cultural and architectural heritage. You will be spoiled for choice with all the restaurants, museums, shops and places of interest within easy walking distance.

Just beyond the city of Glasgow lies some of Scotland's most beautiful scenery. The local area is rich in history and heritage and the Trossachs, the Highlands and the Borders are easily accessible.

## How to Apply

Apply online at:

<http://pgr.strath.ac.uk>

## Contact

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For more information about the Department and our courses visit:

[www.strath.ac.uk/civeng/pg](http://www.strath.ac.uk/civeng/pg)



## Department of Civil Engineering – David Livingstone Centre for Sustainability

## MASTER of RESEARCH PROGRAMMES in POLLUTION CONTROL & SUSTAINABLE DEVELOPMENT

This research and project-based Master's degree in Pollution Studies and Sustainable Development has three components, addressing distinct aspects of environmental engineering and management:

- Integrated Pollution Prevention and Control
- Geo-environmental Engineering
- Sustainable Construction and Infrastructure

The three programmes draw on the sustainability and environmental concerns of contemporary engineering and industrial practice. They seek to explore options for the design and development of innovative engineering projects in the light of prevailing environmental regulations and major investment initiatives in infrastructure development.



## The Programmes

The Master's Programmes by Research (MRes) are available in full-time and part-time modes of study. The programmes comprise a thesis project and six taught modules with project and laboratory-based content that gives hands on experience essential for the understanding of engineering and environmental problems with which industry has to contend in order to meet sustainability and environmental objectives. On successful completion of the research project it is possible for good quality researchers to transfer to the PhD Programme (ie the MRes would be equivalent to the first year of the PhD).

The programmes provide advanced study in sustainable development, pollution control and prevention and geo-technical studies from the perspective of the engineering profession, chemists, microbiologists, and economists. They adopt a multidisciplinary and integrated approach to the design and development of engineering projects.

## Target Market

The programmes are aimed principally at graduates in civil and environmental engineering, earth sciences, bioscience, chemistry and chemical engineering who wish to build on their undergraduate studies and improve their career prospects. However, the programme has also been successfully completed by others from an unrelated background, such as business (see student profile). They are also designed for employees of public and private sector companies who wish to upgrade their skills to be able to tackle the complex issues relating to sustainable development, and to design engineering options for sustainable development.

## MRes in Integrated Pollution Prevention and Control (IPPC)

This programme provides advanced study in Integrated Pollution Prevention and Control within the European Community Directive framework.

### Core Modules

- Atmospheric Pollution Impact Assessment
- Waste Management and Landfill Design
- Research Protocols for Science & Engineering
- Site Investigation and Risk Assessment
- Optional subjects to the value of 20 credits

Research Project or Thesis (120 Credits)

## MRes in Geo-Environmental Engineering

This programme is unique in Scotland and the UK for being taught by professionally qualified civil engineers, chemists, microbiologists, and economists employed full-time in the one university department.

### Core Modules

- Recycling Urban Land
- Waste Management and Landfill Design
- Research Protocols for Science & Engineering
- Site Investigation and Risk Assessment
- Optional subjects to the value of 20 credits

Research Project or Thesis (120 Credits)

## MRes in Sustainable Construction & Infrastructure

This programme provides advanced study in sustainable development, from the perspective of the engineering profession, in the design of engineering projects.

### Core Modules

- Recycling Urban Land
- Waste Management and Landfill Design
- Research Protocols for Science & Engineering
- Transport, Development & Sustainability
- Optional subjects to the value of 20 credits

Research Project or Thesis (120 Credits)

### Optional Modules

The optional classes for all MRes programmes may include up to 20 credits from ANY of the postgraduate classes (around 40) offered by the Department of Civil Engineering, at the discretion of the MRes course leader. These include:

- Strategic Environmental Assessment
- Climate Change Mitigation and Adaptation
- Ecology Biodiversity and Sustainability
- Fundamentals of Environmental Forensics
- Project Analysis
- Recycling Urban Land
- Science, Technology & Innovation Policy
- Site Investigation and Risk Assessment
- Spatial Query and Analysis using GIS
- Technology Transfer to Developing Countries

## Career Benefits

The MRes programmes are proving to be a valuable springboard to further research with 40 per cent of students progressing to a PhD. However, those who have chosen to leave academia with the MRes have all gained employment with organisations such as Glasgow City Council, the University of Strathclyde, SEPA, Glasgow Caledonian University, SAL, and various environmental consultancies.



**The combination of my 10 years' business experience and an MRes in Integrated Pollution Prevention and Control were key factors in**

**obtaining my post of Project Officer for a technology transfer project that includes green tourism and sustainable construction and which has utilised my knowledge in waste management, EIA and air pollution, not to mention my previous business experience.**

**I am now at the stage that I want to extend my knowledge as I found that the MRes is a fantastic stage towards a PhD. The relationships built at Strathclyde and the help I have received made the decision so much easier and I am now pursuing a PhD part-time at Strathclyde.**

*Audrey Meikle, MRes 2007,  
part-time PhD student*