

# FACULTY OF ENGINEERING

## DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

### CIVIL ENGINEERING

Master of Science in Civil Engineering

Master of Science in Civil Engineering with Structural Engineering & Project Management

Master of Science in Civil Engineering with Geotechnical Engineering & Project Management

Master of Science in Civil Engineering with Geoenvironmental Engineering & Project Management

Master of Science in Civil Engineering with Water Engineering & Project Management

Postgraduate Diploma in Civil Engineering

Postgraduate Certificate in Civil Engineering

*These regulations are to be read in conjunction with [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).*

#### Admission

1. Notwithstanding the [General Academic Regulations - Postgraduate Taught Degree Programme Level](#), applicants shall possess:
  - i. a degree (or in the case of direct entry to the degree of MSc, a first or upper second class Honours degree) from a United Kingdom university in Science or Engineering; or
  - ii. a qualification deemed by the Programme Leader acting on behalf of Senate to be equivalent to i. above.
2. In all cases, applicants whose first language is not English, shall be required to demonstrate an appropriate level of competence.

#### Duration of Study

3. See [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).

#### Mode of Study

4. The programmes are available by full-time and part-time study.

#### Curriculum

5. All students shall undertake an approved curriculum as follows:
  - i. for the Postgraduate Certificate no fewer than 60 credits
  - ii. for the Postgraduate Diploma no fewer than 120 credits
  - iii. for the degree of MSc no fewer than 180 credits including the Project CL980

#### Compulsory Modules – all streams

Module Code	Module Title	Level	Credits
CL804	Research Methods for Quantitative and Qualitative Approaches	5	10
OR			
CL997	Research Methods for Quantitative and Qualitative Approaches	5	10

CL519	Group Design Project B	5	20
OR			
CL966	Group Design Project B (Semester 1)	5	20
Students for the degree of MSc only:			
CL980	Project	5	60

## **MSc Civil Engineering**

### **Optional Modules**

60 credits from List A plus 30 credits from List A or B.

## **MSc Civil Engineering with Structural Engineering & Project Management**

### **Compulsory Modules**

Module Code	Module Title	Level	Credits
CL507	Ground Improvement and Reinforcement	5	10
CL510	Advanced Structural Analysis and Design	5	10
CL976	Prestressed Concrete, Composite Materials and Structural Stability	5	10
EF931	Project Management	5	10

### **Optional Modules**

20 credits from List A plus 30 credits from List A or B.

## **MSc Civil Engineering with Geotechnical Engineering & Project Management**

### **Compulsory Modules**

Module Code	Module Title	Level	Credits
CL507	Ground Improvement and Reinforcement	5	10
CL803	Geotechnics of Unsaturated Soils	5	10
CL935	Hydrogeology	5	10
EF931	Project Management	5	10

### **Optional Modules**

20 credits from List A plus 30 credits from List A or B.

## **MSc Civil Engineering with Geoenvironmental Engineering & Project Management**

### **Compulsory Modules**

<b>Module Code</b>	<b>Module Title</b>	<b>Level</b>	<b>Credits</b>
CL904	Waste Management and Landfill Design	5	10
CL906	Site Investigation and Risk Assessment	5	10
CL954	Contaminated Land	5	10
EF931	Project Management	5	10

### **Optional Modules**

20 credits from List A plus 30 credits from List A or B.

## **MSc Civil Engineering with Water Engineering & Project Management**

### **Compulsory Modules**

<b>Module Code</b>	<b>Module Title</b>	<b>Level</b>	<b>Credits</b>
CL978	Water & Wastewater Treatment Design	5	10
CL919	Urban Water Supply and Drainage Systems	5	10
EV921	Water and Environment Management	5	10
EF931	Project Management	5	10

### **Optional Modules**

20 credits from List A plus 30 credits from List A or B.

### **List A**

<b>Module Code</b>	<b>Module Title</b>	<b>Level</b>	<b>Credits</b>
CL507	Ground Improvement and Reinforcement	5	10
CL510	Advanced Structural Analysis and Design	5	10
CL527	Structural Reliability Analysis and Design under Uncertainty	5	10
CL904	Waste Management and Landfill Design	5	10
CL906	Site Investigation and Risk Assessment	5	10
CL803	Geotechnics of Unsaturated Soils	5	10

CL935	Hydrogeology	5	10
CL954	Contaminated Land	5	10
CL976	Prestressed Concrete, Composite Materials and Structural Stability	5	10
EF931	Project Management	5	10
NM833	Marine Renewable Energy Systems	5	10
CL978	Water & Wastewater Treatment Design	5	10
EV921	Water and Environment Management	5	10
CL992	Advanced Materials Science for Structures	5	10
CL991	Structural Health Monitoring	5	10
CL996	Materials and Microstructures	5	10
AB991	Building Information Management	5	10
AB995	Facilities Management	5	10

#### List B

Module Code	Module Title	Level	Credits
EF929	Financial Engineering	5	10
CL946	Global Water Policy	5	10
CL948	Principles of Environmental Microbiology	5	10
CL960	Fundamentals of Environmental Forensics	5	10
CL970	Environmental Pollution Management	5	10
CL971	Air Pollution, Climate Change & Human Health	5	10
CL973	Independent Study in Collaboration with Industry	5	10
CL961	Geographical Information Systems	5	10
EF927	Design Management	5	10
EF932	Risk Management	5	10
EV908	Pollution and Rehabilitation of Degraded Ecosystems	5	10
EV939	Environmental Impact Assessment	5	10
L2967	City Systems and Infrastructure	5	10
CL913	Public Health Studies	5	10

CL994	Circular economy and transformations towards sustainability	5	10
CL998	Independent Research Study (Semester 1)	5	10
CL999	Independent Research Study (Semester 2)	5	10

Exceptionally, such other Level 5 modules totalling no more than 20 credits, as approved by the Programme Leader.

Not all optional modules on these lists will be available in each academic year.

### Examination, Progress and Final Assessment

6. See [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).
7. The final award will be based on performance in the examinations, coursework and the CL980 project where undertaken.

### Award

8. **Degree of MSc:** In order to qualify for the award of the degree of MSc in Civil Engineering, a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 180 credits (including no fewer than 60 credits from List A), of which 60 must have been awarded in respect of the project CL980.
9. In order to qualify for the award of **MSc in Civil Engineering with Structural Engineering & Project Management, MSc in Civil Engineering with Geotechnical Engineering & Project Management, MSc in Civil Engineering with Geoenvironmental Engineering & Project Management and MSc in Civil Engineering with Water Engineering & Project Management**, the candidate must have accumulated no fewer than 180 credits including the appropriate combination of compulsory and optional credits stipulated in the curriculum above.
10. **Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Civil Engineering, a candidate must have accumulated no fewer than 120 credits from the taught modules of the programme, including no fewer than 60 credits from the modules in List A.
11. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Civil Engineering, a candidate must have accumulated no fewer than 60 credits from the taught modules of the programme, including no fewer than 30 credits from the modules in List A.