

Civil Engineering

This version of the programme is no longer recruiting. Please refer to the updated specification for the programme of the same name.

Final award	MSc, PgDip
Intermediate awards available	PgCert, PgDip
UCAS code	N/A
Details of professional body accreditation	JBM Accredited MSc (Technical) – see Added Value section for details
Relevant QAA Benchmark statements	Masters in Engineering (MEng)
Date specification last up-dated	August 2012

Profile

The summary - programme advertising leaflet

Programme content

The aim of the programme is to meet the needs of engineers engaged in the planning, design and construction of a variety of Civil Engineering works

PgD and MSc at UEL

The programme offers a number of self contained modules, organised around the various areas of Civil Engineering. It has been developed as a result of successful operation of a Postgraduate Diploma programme since 1975 and numerous advanced programmes since 1964. In each module theory and design are studied together in order to solve practical problems.

The choice of modules and the subject of the research dissertation allow some specialisation of the MSc

Admission requirements

1. For the MSc, a BEng (Hons) minimum 2:2 or BSc(Hons) minimum 2:1 in Civil Engineering
2. For the PGC/D a BEng(Hons) minimum class 3 or BSc (Hons) minimum 2:2
3. Appropriate professional qualifications such as MICE or MIMStructE
4. Applicants with other qualifications will be considered on an individual basis

Transfer from the PGD to the MSc

Those students who are enrolled on the PGD can request to be transferred to the MSc provided they satisfy the following conditions.

Transfer from the PG Dip programme to the MSc programme can be considered after the first two modules have been completed, provided they have been passed at the first opportunity with an average of 60%, or on completion of all 4 modules where the average of the two highest passed modules is 60% or above, however all 4 modules must be passed before being allowed to register for the dissertation.

Programme structure

The programme can be taken either in a part-time mode by engineers employed in the UK, or in a full-time mode by overseas engineers. The full time PgD and MSc are of one to one & half calendar year's duration with enrolment on the programme possible either in September or February. For the part-time MSc there is a maximum duration of six years. Students require one-two 30 credit modules for the CPD short programmes, two modules for the PgCert, four modules for the PgD and four modules plus a 60 credit Research Dissertation for the MSc.

Learning environment

Teaching methods include lectures, tutorials, seminars, laboratory work and external site visits. Web based learning is employed for the research dissertation.

Assessment

Assessment is mainly by end of semester examination. The aggregate pass mark for a module is 50% with minimum module component mark of 40%.

Relevance to work/profession

Our teaching is informed by strong links with industry and the profession. We welcome research dissertation topics arising from and linked to professional work

Thesis/Dissertation/project work

This gives the student an opportunity to work independently making his own critical appraisal of a chosen subject. This may include literature survey, laboratory testing and computer programming.

Added value

The MSc Civil Engineering degree at UEL is accredited as meeting the requirements for Further Learning for a Chartered Engineer (CEng) for candidates who have already acquired an Accredited CEng (Partial) BEng(Hons) or an Accredited IEng (Full) BEng/BSc(Hons) undergraduate first degree. See www.jbm.org.uk for further information.

Your future career

Civil Engineers with postgraduate qualifications find a wide range of career opportunities with consultancy, contractor and client organisations, as well as other related areas such as research and management.

How we support you

Students may approach staff for help with personal or academic problems either in person or by e-mail. A programme handbook provides all relevant information on the programme and the teaching resources. The research dissertation is carried out with the help of a web-based guidance notes and a project supervisor.

Bonus factors

Outcomes

Programme aims and learning outcomes

What is this programme designed to achieve?

This programme is designed to give you the opportunity to:

- To gain a depth of knowledge and understanding of the most up to date practices and theories in Civil Engineering
- To develop techniques for analysing and solving problems. These may arise in various Civil Engineering projects.
- To understand the role of the engineer as an important professional in society and the built environment.

What will you learn?

All learning outcomes are covered in the full MSc, and where PGDip is shown against a learning outcome, this confirms that the learning outcome is covered in the standalone P Dip award offered.

Knowledge

Understand the latest theories and practices in:

- Water and Geotechnical Engineering (PGDip)
- Highways and Transportation Engineering (PGDip)
- Analysis and Design of Structures (PGDip)
- Project Organisation and Construction Management (PGDip)

Thinking skills

Develop skills in:

- Analysing data (PGDip)
- Critical assessment of current theories (PGDip)
- Solve practical problems (PGDip)

Subject-Based Practical skills

Ability to:

- Carry out a research project
- Interpret experimental data (PGDip)
- Use various computer design packages (PGDip)
- Complete design projects (PGDip)

Skills for life and work (general skills)

Ability to:

- Communicate effectively both verbally and in writing (PGDip)
- Use Word, Excel, Outlook and PowerPoint programs (PGDip)
- Work as a part of a design team (PGDip)

Structure

The programme structure

Introduction

All programmes are credit-rated to help you to understand the amount and level of study that is needed.

One credit is equal to 10 hours of directed study time (this includes everything you do e.g. lecture, seminar and private study).

Credits are assigned to one of 5 levels:

- 0 - equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree programme
- 1 - equivalent in standard to the first year of a full-time undergraduate degree programme
- 2 - equivalent in standard to the second year of a full-time undergraduate degree programme
- 3 - equivalent in standard to the third year of a full-time undergraduate degree programme
- M - equivalent in standard to a Masters degree

Credit rating

The overall credit-rating of this programme is 180 for Masters, 120 for PgDip, 60 for PgCert.

Typical duration

The duration of this programme is one year full time if the enrolment is in September two years part-time.

How the teaching year is divided

The teaching year is divided into two semesters of roughly equal length. A full-time student will study two 30 credit modules per semester and a part-time student will study one module per semester

What you will study when

Students may choose modules from the optional 30 credit modules on offer each semester. The modules offered are selected from the following list:

30 Credit Modules

- CEM001 Hydraulic Structures, Coastal and River Engineering
- CEM003 Engineering Management and Project Organisation
- CEM004 Soil Structure Engineering
- CEM005 Design in Steel and Concrete
- CEM006 Advanced Structural Analysis
- CEM007 Highway and Transportation Engineering
- CEM009 Site Investigations and Ground Exploration
- CEM010 Structural Dynamics and Earthquake Engineering
- CEM012 Highway Engineering
- CEM013 Transportation Engineering

The research dissertation CEM011 is a 60-credit core module for MSc students.

Requirements for gaining an award

AWARD	MODULES	CREDITS
CPD	1 2	30 60
PgCert	2	60
PgD	4	120
MSc	4 modules and a Research Dissertation	180

Masters Award Classification

Where a student is eligible for an Masters award then the award classification is determined by calculating the arithmetic mean of all marks and applying the mark obtained as a percentage, with all decimals points rounded up to the nearest whole number, to the following classification

70% - 100%	Distinction
60% - 69%	Merit
50% - 59%	Pass
0% - 49%	Not Passed

Assessment

Teaching, learning and assessment

Teaching and learning

Knowledge is developed through:

- Lectures
- Tutorials
- Seminars
- Site visits

Thinking skills developed through:

- Coursework
- Mini projects
- Research dissertation

Practical skills:

- Laboratory experiments
- Design projects
- Planning of work required for the research dissertation

Skills for life developed through:

- Seminars
- Presentation of research
- Research dissertation

Assessment

Knowledge is assessed by:

- Coursework
- Examinations
- Research dissertation

Thinking skills are assessed by:

- Solutions to practical problems
- Evaluation of literature
- Evaluation of experimental data

Practical skills are assessed by:

- Use of design aids
- Use of computer aided design packages
- Laboratory experiments
- Preparation of research dissertation

Skills for life are assessed by:

- Seminars
- Design drawings
- Research dissertation
- Oral examinations

Quality

How we assure the quality of this programme

Before this programme started

Before the programme started, the following was checked:

- there would be enough qualified staff to teach the programme;
- adequate resources would be in place;
- the overall aims and objectives were appropriate;
- the content of the programme met national benchmark requirements;
- the programme met any professional/statutory body requirements;
- the proposal met other internal quality criteria covering a range of issues such as admissions policy, teaching, learning and assessment strategy and student support mechanisms.

This is done through a process of programme approval which involves consulting academic experts including some subject specialists from other institutions.

How we monitor the quality of this programme

The quality of this programme is monitored each year through evaluating:

- external examiner reports (considering quality and standards);
- statistical information (considering issues such as the pass rate);
- student feedback.

Drawing on this and other information programme teams undertake the annual Review and Enhancement Process which is co-ordinated at School level and includes student participation. The process is monitored by the University's Quality Standing Committee.

Once every six years an in-depth review of the whole field is undertaken by a panel that includes at least two external subject specialists. The panel considers documents, looks at student work, speaks to current and former students and speaks to staff before drawing its conclusions. The result is a report highlighting good practice and identifying areas where action is needed.

The role of the programme committee

This programme has a programme committee comprising all relevant teaching staff, student representatives and others who make a contribution towards the effective operation of the programme (e.g. library/technician staff). The committee has responsibilities for the quality of the programme. It provides input into the operation of the Review and Enhancement

Process and proposes changes to improve quality. The programme committee plays a critical role in the University's quality assurance procedures.

The role of external examiners

The standard of this programme is monitored by at least one external examiner. External examiners have two primary responsibilities:

- To ensure the standard of the programme
- To ensure that justice is done to individual students

External examiners fulfil these responsibilities in a variety of ways including:

- Approving exam papers/assignments
- Attending assessment boards
- Reviewing samples of student work and moderating marks
- Ensuring that regulations are followed
- Providing feedback to UEL through an annual report that enables us to make improvements for the future

Listening to the views of students

The following methods for gaining student feedback are used on this programme:

- Module evaluations
- Student representation on programme committees

Students are notified of the action taken through:

- circulating the minutes of the programme committee
- providing charts on student feedback on the programme notice board

Listening to the views of others

The following methods are used for gaining the views of other interested parties:

- Questionnaires to former students
- Industrial liaison committee

Further Information

Alternative locations for studying this programme

Location	Which elements?	Taught by UEL staff	Taught by local staff	Method of Delivery
Legenda, Malaysia (Not accredited by the JBM)	CEM001, CEM007, CEM006, CEM004 & CEM010	No	Yes	Full Time
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Where you can find further information

Further information about this programme is available from:

- The UEL web site
- The student handbook
- UEL Manual of Regulations and Policies <http://www.uel.ac.uk/qa/>
- UEL Quality Manual <http://www.uel.ac.uk/qa/manual>
- Regulations for the Academic Framework <http://www.uel.ac.uk/academicframework/>

- [Current External examiners](#)
- External examiner reports (available from UEL virtual learning environment (UELPlus or Moodle))