

Programme Aim and Title	BEng (Hons) Civil Engineering
Additional Versions of this Programme	BEng (Hons) Civil Engineering and Construction (at Metropolitan College, Greece) BEng (Hons) Civil Engineering with Structural Design (at British College of Applied Studies, Sri Lanka)
Intermediate Awards Available	BEng, Cert HE, Dip HE
Teaching Institution(s)	UEL
Alternative Teaching Institutions (for local arrangements see final section of this specification)	Metropolitan College, Greece British College of Applied Studies (BCAS), Sri Lanka Myanmar Nobel College, Myanmar
UEL Academic School	Architecture, Computing and Engineering
UCAS Code	H200
Professional Body Accreditation	<u>UEL on-campus BEng (Hons) only; not at the alternative teaching institutions</u> JBM Accredited: IEng (Full) CEng (Partial) Accredited by Chartered Institution of Civil Engineering Surveyors (ICES)
Relevant QAA Benchmark Statements	Engineering
Date Specification Last Updated	March 2018

Programme Aims and Learning Outcomes

The general aim is to provide an educational programme of study for Civil and Structural engineers that with further learning will meet the demands of their profession and to enable them to progress to the status of Chartered Engineer. A specific aim of the programme is to promote an active interest in engineering and to encourage students to respond to changes and developments within their profession.

This programme is designed to:

- educate engineers to a level that will enable them to function effectively in industry
- provide knowledge and understanding of current theories and developments in civil engineering
- enhance understanding of the design and management processes relevant to civil engineering
- encourage critical awareness and understanding of other professionals in the construction industry
- contribute to the development of the Engineer as an important professional in society and the built environment
- allow progression in career and educational development giving opportunities to study for a postgraduate Masters degree.

What you will learn:

Knowledge

- Civil engineering procurement and construction process
- Principles of fluid mechanics and hydraulics
- Soil mechanics, geotechnics and material science
- Principles of analysis & design of engineering structures
- Land surveys, setting out of building and civil engineering structures
- Analytical mathematical and IT problem-solving
- Design and practical project applications

Thinking skills

- Critical assessment skills
- Intellectual appreciation
- Time management
- Risk Management

Subject-Based Practical skills

- Use of Information Technology
- Field surveying skills
- Laboratory testing and analysis

Skills for life and work (general skills)

- Communication skills
- Problem-solving skills
- Analytical skills
- Management skills
- Ethics
- Health and Safety

Learning and Teaching

Knowledge is developed through

- attending lectures/guest presentations
- engaging with formative tutorial work
- actively participating in design and project work
- guided reading
- knowledge-based activities with feedback
- online discussions and activities
- attending evening lectures/seminars hosted by the professional institutions

Thinking skills are developed through

- analytical assessment of data

- solving tutorial problems
- critical assessment of information
- problem-solving practical applications
- design and research projects
- reflective activities with feedback
- tutorial activities & discussions.
- online discussions and activities

Practical skills are developed through

- laboratory and experimental work
- drawing and design
- field courses and site visits
- applying technical regulations to given scenarios
- application to real life and simulated case studies
- IT activities with feedback
- research skills-based activities with feedback
- seminar preparation and presentations

Skills for life and work (general skills) are developed through

- interactive communication exercises
- individual and group working sessions
- the demands of the study medium
- planning activities with feedback
- project and team work
- using of specialist software

Assessment

Knowledge is assessed by

- time constrained examinations
- laboratory and Field work exercises
- assignments, design and project work

Thinking skills are assessed by

- approach to solving problems
- analysis of alternative solutions
- practical solutions to complex tasks

Practical skills are assessed by

- laboratory reports and experimental assessment
- group survey work
- application to practical problem-solving

Skills for life and work (general skills) are assessed by

- oral presentations
- written communication exercises
- drawing, sketching and design work
- team project work
- use of specialist software

Students with disabilities and/or particular learning needs should discuss assessments with the Programme Leader to ensure they are able to fully engage with all assessment within the programme.

Work or Study Placements

For our UEL on-campus based students:

Students, who have come directly onto the BEng (Hons) course, can opt to undertake a sandwich placement between the second and third year of study. Recently we have had students working for Atkins, Morgan Sindall, Balfour Beatty, Hardman Structural Engineering. Alternatively, some arrange work experience over the summer.

The School has strong links with industry and employers often approach us when looking for placement / internship students.

An employment liaison officer to oversee the administration of the year out placements and we are fortunate in the support of our Industrial Advisory Board (IAB) partners in enabling this important optional element to happen, although this is a competitive process and a placement cannot be guaranteed.

Programme Structure

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:

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| 3 | Equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree programme. |
| 4 | Equivalent in standard to the first year of a full-time undergraduate degree programme. |
| 5 | Equivalent in standard to the second year of a full-time undergraduate degree programme. |
| 6 | Equivalent in standard to the third year of a full-time undergraduate degree programme. |
| 7 | Equivalent in standard to a Masters degree. |

Programmes are made up of modules that are each credit weighted.

The module structure of this programme:

Level	Code	Module title	Distance learning Y/N	credit	Core/Option
4	EG4102	Earth and Materials properties	N	30	Core
4	EG4104	Construction Technology & Surveying (¥)	N	30	Core
4	EG4101	Introduction to Structural Mechanics	N	30	Core
4	EG4103	Maths and Introduction to Fluid Mechanics	N	30	Core
5	EG5102	Geotechnical and Material Analysis (¥)	N	30	Core
5	EG5104	Engineering Surveying and Management	N	30	Core
5	EG5101	Analysis and Design of Structural Elements	N	30	Core
5	EG5103	Engineering Maths and Hydraulic Analysis	N	30	Core
<i>Students who take an optional industrial sandwich placement would normally do so after completion of level 5 modules. They are required to register for:</i>					
P	EG5100	Industrial Sandwich Placement	N	120	Option
6	EG6101	Structural Analysis and Design	N	30	Core
6	EG6102	Geotechnical Engineering Design	N	30	Core
6	EG6107	Integrated Design Project	N	15	Core
6	EG6104	Individual Research Project	N	30	Core
6	EG6108	Construction Site Field Project (β)	N	15	Option
6	EG6106	Traffic and Highway Engineering	N	15	Option

¥ = compulsory field trip β = optional field trip

Please note: Optional modules might not run every year, the programme team will decide on an annual basis which options will be running, based on student demand and academic factors, in order to create the best learning experience.

The optional level P placement module EG5100 is required to obtain a sandwich degree, in addition to the other requirements, but does not count towards the degree classification.

Additional detail about the programme module structure:

A core module for a programme is a module which a student must have passed (i.e. been awarded credit) in order to achieve the relevant named award. An optional module for a programme is a module selected from a range of modules available on the programme.

The overall credit-rating of this programme is 360 credits. If for some reason you are unable to achieve this credit you may be entitled to an intermediate award, the level of the award will depend on the amount of credit you have accumulated. You can read the University Student Policies and Regulations on the UEL website.

Programme Specific Regulations

For our UEL on-campus students:

The BEng (Hons) Civil Engineering programme is accredited IEng (Full) and CEng(Partial) by the Joint Board of Moderators, which represents the Institution of Civil Engineers (ICE), the Institution of Structural Engineers (IStructE), the Chartered Institution of Highways and Transportation (CIHT) and the Institute of Highway Engineers (IHE).

This degree is accredited (at 3rd class honours and above) as:

1. fully satisfying the educational base for an Incorporated Engineer (IEng)
2. partially satisfying the educational base for a Chartered Engineer (CEng). A programme of accredited Further Learning will be required to complete the educational base for CEng.

See www.jbm.org.uk for further information and details of Further Learning programmes for CEng.

This professional accreditation means that the degree programme can provide part of your preparation for Chartered Engineer status. It can also give you entry to one of our Masters degrees to provide further learning.

ICES

The BEng (Hons) Civil Engineering degree is also accredited by the Chartered Institution of Civil Engineering Surveyors

The School hosts a regular programme of construction site visits open to all students on construction management courses. Students will benefit from visiting some of the most prestigious construction projects being built today in London with the opportunity to network with many civil engineering and construction company professionals. Recent visits have included the Tate Modern Phase 2 Extension courtesy of Mace and the Canary Wharf Crossrail Station courtesy of Canary Wharf Contractors.

For students at our collaborative partner (Metropolitan College, BCAS or MNC):

This programme is not accredited by the JBM, however students may apply directly to the JBM for accredited status on an individual basis.

For students at our collaborative partner at Metropolitan College:

This programme, is delivered and assessed in Greek, and is titled BEng (Hons) Civil Engineering and Construction.

For students at our collaborative partner at BCAS:

Only the following elements of the programme are delivered and assessed, as a Top-up qualification for BEng (Hons) Civil Engineering with Structural Design: 30 credits at level 5 (EG5103 Engineering Maths and Hydraulic Analysis) and 120 credits at level 6 (excluding EG6108 Construction Site Field Project).

For students at our collaborative partner at MNC:

Only the following elements of the programme are delivered and assessed, as a top-up qualification for BEng (Hons) Civil Engineering: 30 credits at level 5 (EG5109 Structures, Geotechnics and Surveying) and 120 credits at level 6 (excluding EG6108 Construction Site Field Project).

Typical Duration

For our UEL on-campus students:

It is possible to move from full-time to part-time study and vice-versa to accommodate any external factors such as financial constraints or domestic commitments. Many of our students make use of this flexibility and this may impact on the overall duration of their study period. Please discuss this with your programme leader if you wish to move from one to the other.

The expected duration of this programme is 3 years full-time or 6 years part-time.

There is also a 5 year part-time day release (including apprenticeships) mode of study, which does not include the Industrial Sandwich Placement.

A student cannot normally continue study on a programme after 4 years of study in full time mode unless exceptional circumstances apply and extenuation has been granted. The limit for completion of a programme in part time mode is 8 years from first enrolment.

The time limit for completion of a programme is six years after first enrolment on the programme.

For students at our collaborative partner at BCAS:

The expected duration of the programme is 1 year full time.

For students at our collaborative partner at MNC:

The expected duration of the programme is 1 year full time or 2 years part-time.

Further Information

More information about this programme is available from:

- The UEL web site (www.uel.ac.uk)
- The programme handbook
- Module study guides
- UEL Manual of General Regulations (available on the UEL website)
- UEL Quality Manual (available on the UEL website)
- School web pages
- Institution of Civil Engineers <http://www.ice.org.uk>
- Joint Board of Moderators <http://www.jbm.org.uk/>
- Engineering Council <http://www.engc.org.uk/>

All UEL programmes are subject to thorough programme approval procedures before we allow them to commence. We also constantly monitor, review and enhance our programmes by listening to student and employer views and the views of external examiners and advisors.

Additional costs (for UEL on-campus students):

For the 2017/18 academic year these were typically:

Compulsory field trip (at levels 4 and 5): £600

Optional field trip (at level 6): £500

Note that cost could be considerably lower if students book ahead of time and/or share accommodation with friends.

Alternative Locations of Delivery

For students at our collaborative partner (Metropolitan College BCAS and MNC):

This programme does not have professional body accreditation although students are encouraged to make individual applications for accredited status.

For students at our collaborative partner at Metropolitan College:

This programme is delivered and assessed in Greek.

For students at our collaborative partner at BCAS:

- Only the following elements of the programme are delivered and assessed, as a Top-up qualification for BEng (Hons) Civil Engineering: 30 credits at level 5 and 120 credits at level 6
- The expected duration of the programme is 1 year full time.

For students at our collaborative partner at MNC:

- Only the following elements of the programme are delivered and assessed, as a Top-up qualification for BEng (Hons) Civil Engineering: 30 credits at level 5, and 120 credits at level 6.
- The expected duration of the programme is 1 year full time or 2 years part-time.