

Civil Engineering Surveying

This programme is no longer recruiting. Please refer to the programme specification for FdSc Civil Engineering & Construction Management.

Final award	FdSc (Foundation Degree)
Intermediate awards available	Cert HE
UCAS code	H243
Details of professional body accreditation	Chartered Institution of Civil Engineering Surveyors (ICES)
Relevant QAA Benchmark statements	Foundation Degree & Building and Surveying
Date specification last up-dated	July 2012

Profile

The summary - UCAS programme profile

BANNER BOX:

The Foundation Degree in Civil Engineering Surveying provides a work related programme of study. Successful completion can lead to entry at Level 3 of our BSc (hons) Civil Engineering Surveying which is accredited by the professional institutions. The programme would suit those already working in the construction industry who would like to obtain a formal qualification. Civil Engineering Surveyors will play an essential and vital role in the construction of the 2012 Olympics, the Thames Gateway and other major developments.

ENTRY REQUIREMENTS

Candidates will be expected to have 120 UCAS tariff points, however mature candidates will be considered on an individual basis. Entry is possible in both semester A & B. If English is not your first language, we require that you demonstrate your English language skills by achieving an overall IELTS score of 5.5 with no skill level below 5.0.

ABOUT THE PROGRAMME

What is Civil Engineering Surveying?

This programme combines the core practices of land surveying, engineering surveying, geodetic surveying and the design of measurement systems alongside the study of construction, geotechnics and professional issues. This leads to a pivotal role within the construction profession.

Civil Engineering Surveying at UEL

We have over 50 years of experience in teaching Surveying and have developed programmes which are current and will give you the opportunity to develop your understanding and skills.

This is now combined with the Civil Engineering section of the School of Computing, Information Technology and Engineering. Our programmes have long been recognised in Industry as providing graduates with a wide range of practical and theoretical skills. The programme benefits from a 100% employability record for graduates. With a large proportion of laboratory and practical work you will reinforce the theories and practices learnt in the classroom with 'hands on' experience. Our programmes offer you the opportunity to study the fundamental knowledge and theories required by all Civil Engineering Surveyors and apply these to the practical work environment.

Programme structure

Two year full time and 3 year part time. The programme has a common first year with the Foundation degrees in Civil Engineering and Construction Management.

Learning environment

The programme benefits from access to purpose built labs, up-to-date drawing office and information technology facilities and modern surveying equipment. Teaching is delivered through formal lectures, tutorials, workshops, practical classes and laboratory sessions. Most lectures are supported by programme notes which allow students to concentrate on lectures and complete some independent studies of their own. Group work is also encouraged in many modules.

Assessment

Assessment varies from module to module but will include examinations, coursework, project work, laboratory reports, work based assignments and tests on competence in practical sessions.

Work experience/placement opportunities

We have an Industrial Placement Tutor who will assist in making job applications and an Industrial Liaison Officer who chairs our Industrial Advisor Group (IAG). The IAG advises the field on programme development and provides the very important industrial link. Students have a range of vocational work based learning activities integrated across their modules of study. The Foundation Degree Programme involves a compulsory structured work based learning programme which is delivered and assessed via the 'Work Based Study' and 'Work Based Project' modules. These comprise 60 credits from the 240 credits required for the Award.

Work experience forms an integral part of completing the foundation degree. This may be gained within a student's existing employment situation or via a work placement. The School will assist students in preparing and researching for placements and it has a number of employers who regularly recruit placements students from the course but it is a highly competitive situation. Students who cannot find a work placement will not achieve a Foundation Degree but can still achieve a 240 Credit UEL Diploma in Higher education by undertaking some alternative modules in their final year. This will enable onward progression to the final year of the BSc. (hons) in Civil Engineering Surveying.

Project work

Project work is an important feature of this programme. Students will undertake a number of small projects as part of their studies and to complete a major project during the second year. This will involve using all the knowledge acquired to complete a construction project in consultation with employers work based practical application. The work based projects are in the form of a learning contract between the University, the student and the employer such that the projects are individual and the learning outcomes are individually related to the work the student is employed in.

Added value

The FdSc programme has been designed using the criteria from the QAA Benchmarks and is in line with the University programme design policy on Foundation degrees. Both the FdSc and BSc(hons) Civil Engineering Surveying programme has been fully accredited by the Institution of Civil Engineering Surveyors. This programme will allow entry to the final year of our BSc (Hons) programme in Civil Engineering Surveying.

IS THIS THE PROGRAMME FOR ME?

If you are interested in...

- Design
- Management
- Surveying
- Construction

If you enjoy...

- Design and Construction
- Challenges and problem solving
- Indoor and outdoor work
- Maths
- Science
- Physics
- Information Technology

If you want...

A Foundation Degree with a real practical emphasis geared to meet the needs of employers that reflects current changing demands of the construction industry.

Your future career

Opportunities are available in civil and structural engineering, and in a variety of specialist construction areas. Many graduates have successfully moved to careers in business, management, and finance.

How we support you

The School of Computing & Technology prides itself on its student support systems. Based on the practice of industry we operate an open door policy with students encouraged to

consult with their tutors. Personal tutors will monitor progress and provide assistance and advice with academic and personal problems.

The School facilities include dedicated computer laboratories and equipment which are free to use, as long as they are not required for a class. Technical support is readily available supported by academics.

Employer links are maintained through our Industrial Advisory Board and employers are invited to attend the University to talk to students about careers in civil engineering. Professional bodies also visit the University regularly providing details on the qualification process, the benefits of membership and career development.

Bonus factors

Civil Engineering Surveying is studied at the Docklands Campus at the heart of the East London. Transport links are available via bus or Docklands Light Railway linking with Central London and major airports.

Local civil engineering companies visit our School regularly seeking to recruit quality students for work within the industry. The strong industrial links provided through our industrial liaison panel encourages the employment and career paths of our engineers. Course structure has been developed with employer consultation using practical work-based structured modules and assessment methods.

Outcomes

Programme aims and learning outcomes

What is this programme designed to achieve?

This programme is designed to give you the opportunity to:

The general aim is to provide a programme of study for civil engineering surveying technicians to meet the demands of their profession with a practical work based structure and enable them to progress to our established and accredited degree programmes leading to IEng or CEng status if wished. A specific aim of the programme is to promote an active interest in engineering surveying and to encourage students to respond to changes and developments within their profession.

Throughout the programme there are overlapping objectives:

- To train technician engineers to a level that will enable them to function effectively in industry
- To provide a knowledge and understanding of current theories and developments in civil engineering surveying
- To enhance their understanding of the design and management processes relevant to civil engineering surveying
- To encourage critical awareness and understanding of other professionals in the construction industry

- To contribute to the development of the technician and subsequently the Incorporated Engineer as an important professional in society and the built environment
- To allow progression in career and educational development giving opportunities to study for an accredited civil engineering degree.

What will you learn?

The overall learning outcomes are:

- To train and educate civil engineering technicians to be competent engineering surveyors in the working environment
- To provide the opportunities to further their careers and develop a wider understanding of the civil engineering surveying process.
- To understand the importance of professionalism, management, and problem solving techniques for civil engineering surveying

Knowledge and understanding

- Civil Engineering procurement and construction process
- 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
- Self discipline

Subject-Based Practical skills

- Use of Information Technology
- Field Surveying skills
- Laboratory testing and analysis
- Work based assessments

Skills for life and work

- Communication skills
- Problem-solving skills
- Analytical skills
- Management skills
- Knowledge application

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 240 credits.

Typical duration

The expected duration of this programme is two years when attended in full-time mode or three years in part-time mode. It is possible to move from a full-time mode of study to a part-time mode of 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.

How the teaching year is divided

The teaching year begins in September and ends in June but some programmes also allow students to join at the start of Semester B, in February. A student, normally registering for 6 modules in one year (3 modules in each Semester) would do so in a full-time attendance mode of study and a student registering for up to 4 modules in one year (2 modules in each Semester) would do so in part-time attendance mode of study.

What you will study when

This programme is part of a modular degree scheme. A student registered in a full-time attendance mode will take six 20 credit modules per year. A Foundation degree student will complete six modules at level one and, six at level 2.

It is possible to bring together modules from one field with modules from another to produce a combined programme. Subjects are offered in a variety of combinations:

Single 120 credits at levels one, two and three
 Major 80 credits at levels one, two and three
 Joint 60 credits at levels one, two and three
 Minor 40 credits at levels one, two and three.

Modules are defined as:

Core Must be taken

Option Select from a range of identified modules within the field

University Wide Option Select from a wide range of university wide options

The following are the core and optional requirements for the single, major, joint and minor routes for this programme

The following are the core and optional requirements for the single and major routes for this programme

LEVEL	TITLE	SKILLS MODULES (Insert Y where appropriate)	CREDITS	STATUS SINGLE
1	Skills for Academic Learning	Y	20	Core
1	Quantitative Methods		20	Core
1	Plane Surveying		20	Core
1	Geomatics and Construction		20	Core
1	Construction Technology		20	Core
1	Work based Study		20	Core
2	Work Based Project		40	Core
2	Construction Management and Organisation		20	Core
2	Survey Mathematics		20	Core
2	Geodetic Surveying		20	Core
2	Engineering Measurement		20	Core
2	Data Acquisition and 3D Modelling		20	Option
2	Experiential Project		20	Option

* If students do not secure a work placement then the following two modules must be studied and passed to achieve the Equivalent UEL Diploma in Higher Education:

Requirements for gaining an award

In order to gain an honours degree you will need to obtain 360 credits including:

- A minimum of 120 credits at level one or higher

- A minimum of 120 credits at level two or higher
- A minimum of 120 credits at level three or higher

In order to gain an ordinary degree you will need to obtain a minimum of 300 credits including:

- A minimum of 120 credits at level one or higher
- A minimum of 120 credits at level two or higher
- A minimum of 60 credits at level three or higher

In order to gain a Diploma of Higher Education you will need to obtain at least 240 credits including a minimum of 120 credits at level one or higher and 120 credits at level two or higher

In order to gain a Certificate of Higher Education you will need to obtain 120 credits at level one or higher.

In order to gain a Foundation Degree you will need to obtain a minimum of 240 credits including:

- A minimum of 120 credits at level one or higher
- A minimum of 120 credits at level two or higher

(A foundation degree is linked to a named Honours degree onto which a student may progress after successful completion of the Foundation degree.)

Degree Classification

Where a student is eligible for an Honours degree, and has gained a minimum of 240 UEL credits at level 2 or level 3 on the programme, including a minimum of 120 UEL credits at level 3, the award classification is determined by calculating:

$$\frac{\text{The arithmetic mean of the best 100 credits at level 3}}{\times 2/3} + \frac{\text{The arithmetic mean of the next best 100 credits at levels 2 and/or 3}}{\times 1/3}$$

and applying the mark obtained as a percentage, with all decimal points rounded up to the nearest whole number, to the following classification

- 70% - 100% First Class Honours
- 60% - 69% Second Class Honours, First Division
- 50% - 59% Second Class Honours, Second Division
- 40% - 49% Third Class Honours
- 0% - 39% Not passed

Assessment

Teaching, learning and assessment

Teaching and learning

Knowledge and understanding is developed through

- Lectures and Seminars
- Assignments
- Projects
- Use of IT
- Professional Institutions

'Thinking' skills are developed through

- Analytical assessment of data
- Critical assessment of information
- Problem-solving practical applications

Practical skills are developed through

- Laboratory and experimental work
- Drawing and design
- Field programmes and site visits
- Work based assignments

General skills are developed through

- Interactive communication exercises
- Individual and group working session

Assessment

Knowledge and understanding is assessed by

- Time constrained examinations
- Laboratory and field work exercises
- Assignments and project work

'Thinking' skills are assessed by

- Approaches 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
- Work based assignments

General skills are assessed by

- Oral Presentations
- Written communication exercises
- Drawing, sketching and design work

Quality

How we assure the quality of this programme

Before this programme started

Before this 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 Quality and Standards 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 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 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
- Staff and student representation on programme committees
- Subject area feedback information analysis for programme and module evaluation

Students are notified of the action taken through:

- Publication of minutes from the Programme Subject Area Committee
- Providing details on the programme noticeboard and UELPlus

Listening to the views of others

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

- Feedback from External Examiners
- Industrial Advisory Board
- Information from professional bodies

Further Information

Alternative locations for studying this programme

Location Which elements?	Taught by UEL staff	Taught by local staff	Method of Delivery
-	-	-	-

Where you can find further information

Further information about this programme is available from:

- The UEL web site <http://www.uel.ac.uk>
- The programme handbook
- Module study guides
- UEL Manual of General Regulations and Policies <http://www.uel.ac.uk/qa>
- UEL Quality Manual <http://www.uel.ac.uk/qa>
- Regulations for the Academic Framework <http://www.uel.ac.uk/academicframework>
- UEL Guide to Undergraduate Programmes