

Programme Specification

MEng Civil Engineering (2021-22)

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

Awarding Institution	University of Southampton
Teaching Institution	University of Southampton
Mode of Study	Full-time
Duration in years	4
Accreditation details	Chartered Institute of Highways & Transportation (CIHT) Institute of Highway Engineers (IHE) Institution of Civil Engineers (ICE) Institution of Structural Engineers (IStructE)
Final award	Master of Engineering (MEng)
Name of award	Civil Engineering
Interim Exit awards	Bachelor of Engineering with Honours (BEng (Hons)) Bachelor of Science (Ordinary) Certificate of Higher Education (CertHE) Diploma of Higher Education (DipHE)
FHEQ level of final award	Level 7
UCAS code	H201
Programme code	3919
QAA Subject Benchmark or other external reference	QAA Subject Benchmark – Engineering 2015; Accreditation of Higher Education Programmes, Edition 3, Engineering Accreditation Board.
Programme Lead	William Powrie

Programme Overview

Brief outline of the programme

BEng and MEng programmes are offered which are fully accredited by the major civil engineering related professional institutions. The first two years, (parts), of the programmes cover the fundamental engineering science basis of the core civil engineering disciplines, for which the third year shows their application to solution

of practical problems and to design. The fourth year offers a very wide range of optional modules in specialist areas relevant to the latest research and needs of society, together with a compulsory module on project management and economics, and a major integrated group design project. There is an emphasis throughout the programme on skills development – in design (and its communication through sketching, CAD and model making), surveying, construction practice, computer programming, numerical analysis, practical laboratory work and oral presentations.

Your contact hours will vary depending on your module/option choices. Full information about contact hours is provided in individual module profiles.

Learning and teaching

Acquisition of core knowledge and understanding is through lectures, seminars, tutorials, field and laboratory classes, workshops, and independent study and research. You are encouraged from an early stage to supplement and consolidate your understanding and knowledge by independent study.

Assessment

Testing of the knowledge base is through a combination of unseen written examinations and assessed coursework in the form of problem-solving exercises, laboratory reports, design exercises, essays and individual and group projects.

Special Features of the programme

There are a number of special features to the programme aimed at building a cohort identity and improving the student experience and learning opportunity:

1. A full week of induction week activities at the start of the first year, including an outdoor team building activity and a design workshop where students work in small groups to conceive a creative solution to a problem and then communicate it by means of sketches, drawings and models.
2. A design course within the module CENV1023 Construction Design and Materials, in which students develop the skills introduced in induction week to explore the creative process and design a structure to meet a brief, learning skills of sketching, modelmaking, AutoCAD and Revit Architecture. Skills in AutoCAD and Revit Architecture continue to be developed in Part II Design 2, and the University is a registered test centre that enables students to take the Professional examinations in these packages at the end of the second year free of charge.
3. At the end of Part I, the one-week Constructionarium field course takes place, in which students work in groups of about 15-20 to plan and carry out the construction of reduced scale versions of famous structures at the National Construction College in Norfolk. The timing of the Constructionarium towards the end of Part I means that it serves as a team building activity that reinforces the cohort identity (facilitating more effective group working in subsequent years) and also provides skills and experience in planning, management and practical construction that increases student employability during summer vacations from Part 1 onwards.
4. The Constructionarium is not just a one-off activity that concludes in Part I. It also forms an important foundation for Part II CENV2034 Liveable Cities and CENV2035 City Infrastructure Design Project by providing a practical introduction to planning, financial control and Health and Safety. These topics and others are developed further in CENV2034 and CENV2035 with the students having an understanding of how they are applied to real construction projects. In this module, all students are required to visit a construction site to find out first-hand how the management theory taught in lectures is implemented on real construction projects. They are encouraged to obtain a Construction Skills Certification Scheme (CSCS) card in the trainee Managers and Professionals category to maximise their skills and employability, with the test taking place at the University and the University providing to successful students a CSCS card valid for three years.
5. Skills development continues to be important throughout the degree course. In the third year, as part of the module CENV3056 Structural Engineering, students receive professional training in the industry standard finite element analysis software LUSAS, which they may then apply extensively in the design of structures and foundations in Part III Design 3 and Part IV Group Design Projects.
6. Students have the option in the second Semester of Part III to undertake one flexible learning module offered from across the University, or a foreign language module. This enables them should they wish to broaden their learning experience and experience new learning styles as well as a wider range of knowledge

outside of but relevant to engineering.

7. There is a very wide range of optional modules available to students on the MEng programmes in their final year. Covering the range of advanced topics in the mainstream civil engineering disciplines of structural, geotechnical and hydraulic engineering, but also linking to the research interests of the Academic Unit in water and environmental engineering, coastal engineering, transportation and energy, including a number of modules that originate with specialist MSc programmes in some of these areas.

Please note: As a research-led University, we undertake a continuous review of our programmes to ensure quality enhancement and to manage our resources. As a result, this programme may be revised during a student's period of registration; however, any revision will be balanced against the requirement that the student should receive the educational service expected. Please read our [Disclaimer](#) to see why, when and how changes may be made to a student's programme.

Programmes and major changes to programmes are approved through the University's [programme validation process](#) which is described in the University's [Quality handbook](#).

Educational Aims of the Programme

The aims of the programme are to: The aims of the programme are to:

- Provide you with a sound understanding of the fundamental principles, methods, analysis and synthesis in engineering design and applications appropriate to the Civil Engineering discipline.
- Provide you with a range of specialist modules integrated within the structured learning environment, reflecting the internationally-renowned research expertise within the Faculty, in order to broaden and deepen your educational experience.
- Train you to enable you to become a professional civil engineer that meets the requirements of the Engineering Council (i.e. UK-SPEC), and to have a broad range of knowledge and skills (including IT and communication) capable of meeting the present and future demands of industry and commerce.
- Offer you a degree structure that is relevant to industry and responsive to changes in technology and the needs of the community.
- Provide you with a supportive and intellectually stimulating environment that encourages an attitude of independent learning and enquiry, and fosters an ethos of lifetime learning and professional development.
- Offer you individual and group projects and assignments which are supported by the research activities within the Faculty and stimulate individual innovation, self-assessment and teamwork skills required in engineering.

Programme Learning Outcomes

Having successfully completed this programme you will be able to demonstrate knowledge and understanding of:

Science and Mathematics

Engineering is underpinned by science and mathematics, and other associated disciplines, as defined by the relevant professional engineering institution(s). On graduation you will have achieved:

SM1. Comprehensive knowledge and understanding of scientific principles and methodology necessary to

underpin your education in Civil Engineering and an understanding and know-how of the scientific principles of related disciplines, to enable appreciation of the scientific and engineering context, and to support your understanding of relevant historical, current and future developments and technologies

- SM2. Knowledge and understanding of the mathematical and statistical methods necessary to underpin your education in Civil Engineering and to enable you to apply a range of mathematical and statistical methods, tools and notations proficiently and critically in the analysis and solution of Civil Engineering problems
- SM3. Apply and integrate knowledge and understanding of other engineering disciplines to support study of Civil Engineering, evaluate them critically and apply them effectively
- SM4. Awareness of developing technologies related to Civil Engineering
- SM5. Comprehensive knowledge and understanding of mathematical and computational models relevant to Civil Engineering, and an appreciation of their limitations
- SM6. Understanding of concepts from a range of areas including some outside engineering, and the ability to evaluate them critically and to apply them effectively in engineering projects

Engineering analysis

Engineering analysis involves the application of engineering concepts and tools to the solution of Acoustical Engineering problems. On graduation you will have achieved:

- EA1. Understanding of engineering principles and the ability to apply them to undertake critical analysis of key engineering processes
- EA2. Identify, classify and describe the performance of systems and components through the use of analytical methods and modelling techniques
- EA3. Apply quantitative and computational methods, using alternative approaches and understanding their limitations, in order to solve engineering problems and to implement appropriate action
- EA4. Understanding of, and the ability to apply, an integrated or systems approach to solving complex engineering problems
- EA5. Use fundamental knowledge to investigate new and emerging technologies
- EA6. Extract and evaluate pertinent data and to apply engineering analysis techniques in the solution of unfamiliar problems

Design

Design at this level is the creation and development of an economically viable product, process or system to meet a defined need. It involves significant technical and intellectual challenges and can be used to integrate all engineering understanding, knowledge and skills to the solution of real and complex problems. On graduation you will have the knowledge, understanding and skills to:

- D1. Understanding of and ability to evaluate business, customer and user needs in Civil Engineering design including considerations such as the wider engineering context, public perception and aesthetics
- D2. Investigate and define design problems, identify any constraints including environmental and sustainability limitations; ethical, health, safety, security and risk issues; intellectual property; codes of practice and standards
- D3. Work with information that may be incomplete or uncertain, quantify the effect of this on the design

and, where appropriate, use theory or experimental research to mitigate deficiencies

- D4. Apply advanced problem-solving skills, technical knowledge and understanding to establish rigorous and creative design solutions that are fit for purpose for all aspects of a problem including production, operation, maintenance and disposal
- D5. Plan and manage the design process, including cost drivers, and evaluate outcomes
- D6. Communicate your design work to technical and non-technical audiences
- D7. Demonstrate wide knowledge and comprehensive understanding of design processes and methodologies and the ability to apply and adapt them in unfamiliar situations
- D8. Demonstrate the ability to generate an innovative design for products, systems, components or processes to fulfil new needs

Economic, legal, social, ethical and environmental context

Engineering activity can have impacts on the environment, on commerce, on society and on individuals. Graduates therefore need the skills to manage their activities and to be aware of the various legal and ethical constraints under which they are expected to operate, including:

- EL1. Understanding of the need for a high level of professional and ethical conduct in engineering including a knowledge of professional codes of conduct and how ethical dilemmas can arise
- EL2. Knowledge and understanding of the commercial, economic and social context of engineering processes
- EL3. Knowledge and understanding of management techniques, including project and change management that may be used to achieve engineering objectives, their limitations and how they may be applied appropriately
- EL4. Understanding of the requirement for engineering activities to promote sustainable development and ability to apply quantitative techniques where appropriate
- EL5. Awareness of relevant legal requirements governing engineering activities, including personnel, health & safety, contracts, intellectual property rights, product safety and liability issues, and an awareness that these may differ internationally
- EL6. Knowledge and understanding of risk issues, including health & safety, environmental and commercial risk, risk assessment and risk management techniques and an ability to evaluate commercial risk
- EL7. Understanding of the key drivers for business success, including innovation, calculated commercial risks and customer satisfaction

Engineering practice

This is the practical application of engineering skills, combining theory and experience, and use of other relevant knowledge and skills. On graduation you will have achieved:

- P1. Understanding of the various contexts in which engineering knowledge can be applied (eg operations and management, application and development of technology, etc)
- P2. Knowledge of characteristics of particular materials equipment, processes, or products relevant to Civil Engineering, with extensive knowledge and understanding of a wide range of engineering materials and components
- P3. Apply relevant practical and laboratory skills

- P4. Understanding of the use of technical literature and other information sources
- P5. Knowledge of relevant legal and contractual issues
- P6. Understanding of appropriate codes of practice and industry standards
- P7. Awareness of quality issues and their application to continuous improvement
- P8. Work with technical uncertainty
- P9. A thorough understanding of current Civil Engineering practice and its limitations, and some appreciation of likely new developments
- P10. Apply engineering techniques taking account of a range of commercial and industrial constraints
- P11. Understanding of different roles within an engineering team and the ability to exercise initiative and personal responsibility, which may be as a team member or leader

Additional general skills

On graduation you will have developed transferable skills, additional to those set out in the other learning outcomes, that will be of value in a wide range of situations, including the ability to:

- G1. Apply your skills in problem solving, communication, working with others, information retrieval, and the effective use of general IT facilities
- G2. Plan self-learning and improve your performance, as the foundation for lifelong learning/CPD
- G3. Monitor and adjust a personal programme of work on an on-going basis
- G4. Exercise initiative and personal responsibility, as a team member or leader

Programme Structure

The programme structure table is below:

Information about pre and co-requisites is included in individual module profiles.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Part I

The University uses the European Credit Transfer Scheme (ECTS) to indicate the approximate amount of time a typical student can expect to spend in order to complete successfully a given module or programme, where 1 ECTS indicates around 20 nominal hours of study. Previously, Credit Accumulation and Transfer Scheme (CATS) points were used for this purpose where 1 CATS credit was 10 nominal hours of study. The University credit accumulation and transfer scheme is detailed at <http://www.calendar.soton.ac.uk/sectionIV/cats.html>.

The teaching is structured on a semester pattern. You study modules comprising 60 ECTS (120 CATS) in each of Parts I (level 4), II (level 5) and III (level 6), and 75 ECTS (150 credits) in Part IV (level 7). There are several degree possibilities in the programme of study:

- Three years full-time, leading to a Bachelor of Engineering (BEng).
- Four year full-time, leading to a Bachelor of Engineering with Industrial Placement Year (BEng)
- Four years full-time, leading to a Master of Engineering (MEng).
- Five years full-time, leading to a Master of Engineering with Industrial Placement Year (MEng)

In addition there are the following exit points:

- Certificate of Higher education, following successful completion of Part I.
- Diploma of Higher education, following successful completion of Part II.
- Ordinary Degree of Bachelor of Engineering BEng (Ordinary), following successful completion of at least 150 ECTS (300 CATS), including 30 ECTS (60 CATS) at level 6.

Each module is a self-contained part of the programme of study and carries a credit rating.

Progression through the programme and classification of degrees are regulated by the standard university progression and classification rules which may be found in section IV of the University Calendar (<http://www.calendar.soton.ac.uk/sectionIV/sectIV-index.html>) and in particular at <http://www.calendar.soton.ac.uk/sectionIV/credit-bearing-progs.html> and <http://www.calendar.soton.ac.uk/sectionIV/progression-regs.html>

Typical course content

The first three parts of the BEng and MEng are identical and cover all technical aspects of civil engineering. Part IV of our MEng course focuses on design, management and teamwork – key skills that are highly valued by employers. It also provides the chance to gain in-depth technical understanding and knowledge in subjects of your choice.

All Part 1 modules below are at level 4 and are core, i.e. all required assessments must be taken and passed at the required pass mark. They total 60 ECTS (120 CATS). No option modules will be undertaken in Part I. All modules in Part I are taught over two semesters with any formal examinations held at the end of semester 2. Feedback on progress is provided throughout the year in many ways including via laboratory work, example sheets, tests and coursework.

Part I Core

Code	Module Title	ECTS	Type
CENV1027	Civil Engineering Fundamentals	15	Core
CENV1026	Design and Computing for Civil Engineers	15	Core
MATH1054	Mathematics for Engineering and the Environment	7.5	Core
FEEG1002	Mechanics, Structures and Materials	15	Core
FEEG1003	ThermoFluids	7.5	Core

Part II

Modules at level 5 totalling 60 ECTS/120 CATS credits; all modules compulsory. CENV2006 Soil Mechanics, CENV2030 Structural Analysis and CENV2008 Hydraulics are Core.

Part II Compulsory

Code	Module Title	ECTS	Type
CENV2035	City Infrastructure Design Project	7.5	Compulsory
CENV2034	Liveable Cities	7.5	Compulsory
MATH2048	Mathematics for Engineering and the Environment Part II	7.5	Compulsory

CENV2026	Numerical Methods	7.5	Compulsory
CENV2024	Structural Design and Materials	7.5	Compulsory

Part II Core

Code	Module Title	ECTS	Type
CENV2008	Hydraulics	7.5	Core
CENV2006	Soil Mechanics	7.5	Core
CENV2031	Structural Analysis	7.5	Core

Part III

Modules at level 6 (or one option may be taken at Level 5) totalling 60 ECTS/120 CATS credits. FEEG3003 Individual Project is Core. Any language Stage taken is to be appropriate to the background of the student, and is to be agreed with the Centre for Language Study. A language module may not be taken in the student's first language.

Part III Compulsory

Code	Module Title	ECTS	Type
CENV3015	Design 3	7.5	Compulsory
CENV3020	Geotechnical Engineering	7.5	Compulsory
CENV3060	Highway and Traffic Engineering	7.5	Compulsory
CENV3056	Structural Engineering	7.5	Compulsory

Part III Core

Code	Module Title	ECTS	Type
FEEG3003	Individual Project	15	Core

Part III Optional

Plus a minimum of 7.5 ECTS/15 CATS credits from the list below.

A language module can be taken as an optional module. Any language Stage taken is to be appropriate to the background of the student, and is to be agreed with the Centre for Language Study. A language module may not be taken in the student's first language.

Code	Module Title	ECTS	Type
CENV3066	Environmental Hydraulics	7.5	Optional
FEEG3004	Human Factors in Engineering	7.5	Optional
CENV3065	Railway Engineering and Operations	7.5	Optional
CENV3057	Urban Design	7.5	Optional
CENV3059	Urban Water and Wastewater Engineering	7.5	Optional

Part IV

Modules at level 7 totalling 60 ECTS/120 CATS credits. FEEG6013 Group Design Project is Core.

Part IV Compulsory

Code	Module Title	ECTS	Type
CENV6152	Project Economics and Management	7.5	Compulsory

Part IV Core

Code	Module Title	ECTS	Type
FEEG6013	Group Design Project	22.5	Core

Part IV Optional

Part IV Optional I

Plus a minimum of 22.5 ECTS/45 CATS credits from:

Code	Module Title	ECTS	Type
FEEG6010	Advanced Finite Element Analysis	7.5	Optional
CENV6122	Advanced Geotechnical Engineering	7.5	Optional
CENV6086	Advanced Structural Engineering	7.5	Optional
FEEG6011	Architectural and Building Acoustics	7.5	Optional
CENV6141	Bioenergy	7.5	Optional
CENV6084	Coastal and Maritime Engineering	7.5	Optional
SESG6039	Composites Engineering Design and Mechanics	7.5	Optional
CENV6134	Earthquake Engineering and Seismic Design of Steel Buildings	7.5	Optional
CENV6148	Energy Performance Assessment of Buildings	7.5	Optional
CENV6174	Flood Modelling and Mitigation	7.5	Optional
CENV6153	Transport Modelling	7.5	Optional
CENV6112	Transport, Energy and the Environment	7.5	Optional
CENV6085	Waste Resource Management	7.5	Optional
CENV6158	Wastewater Process Engineering	7.5	Optional

Part IV Optional II

With remaining credits chosen from:

Code	Module Title	ECTS	Type
CENV6090	Energy Resources and Engineering	7.5	Optional
CENV6168	Transport Management and Safety	7.5	Optional

Progression Requirements

The programme follows the University's regulations for [Progression, Determination and Classification of Results : Undergraduate and Integrated Masters Programmes](#) and [Progression, Determination and Classification of Results: Postgraduate Master's Programmes](#) Any exemptions or variations to the University regulations, approved by AQSC are located in [section VI of the University Calendar](#).

Support for student learning

There are facilities and services to support your learning some of which are accessible to students across the University and some of which will be geared more particularly to students in your particular Faculty or discipline area.

The University provides:

- library resources, including e-books, on-line journals and databases, which are comprehensive and up-to-date; together with assistance from Library staff to enable you to make the best use of these resources
- high speed access to online electronic learning resources on the Internet from dedicated PC Workstations onsite and from your own devices; laptops, smartphones and tablet PCs via the Eduroam wireless network. There is a wide range of application software available from the Student Public Workstations.
- computer accounts which will connect you to a number of learning technologies for example, the Blackboard virtual learning environment (which facilitates online learning and access to specific learning resources)
- standard ICT tools such as Email, secure filestore and calendars.
- access to key information through the MySouthampton Student Mobile Portal which delivers timetables, Module information, Locations, Tutor details, Library account, bus timetables etc. while you are on the move.
- IT support through a comprehensive website, telephone and online ticketed support and a dedicated helpdesk in the Hartley Library.
- Enabling Services offering support services and resources via a triage model to access crisis management, mental health support and counselling. Support includes daily Drop In at Highfield campus at 13.00 – 15.00 (Monday, Wednesday and Friday out of term-time) or via on-line chat on weekdays from 14.00 – 16.00. Arrangements can also be made for meetings via Skype.
- assessment and support (including specialist IT support) facilities if you have a disability, long term health problem or Specific Learning Difficulty (e.g. dyslexia).
- the Student Services Centre (SSC) to assist you with a range of general enquiries including financial matters, accommodation, exams, graduation, student visas, ID cards
- Career and Employability services, advising on job search, applications, interviews, paid work, volunteering and internship opportunities and getting the most out of your extra-curricular activities alongside your degree programme when writing your CV
- Other support that includes health services (GPs), chaplaincy (for all faiths) and 'out of hours' support for students in Halls and in the local community, (18.00-08.00)
- A Centre for Language Study, providing assistance in the development of English language and study skills for non-native speakers.

The Students' Union provides

- an academic student representation system, consisting of Course Representatives, Academic Presidents, Faculty Officers and the Vice-President Education; SUSU provides training and support for all these representatives, whose role is to represent students' views to the University.
- opportunities for extracurricular activities and volunteering
- an Advice Centre offering free and confidential advice including support if you need to make an academic appeal
- Support for student peer-to-peer groups, such as Nightline.
- Coursebooks for each year of the programme.
- Introductory sessions for all years of the programme.
- Library information retrieval seminar.
- Workshop training.
- Small group tutorials in Part of the programmes.
- Engineering Development and Manufacturing Centre (EDMC) equipped with a range of workshop equipment, CAD/CAM.
- Engineering and specific software available on all computers.
- Personal tutors to assist you with personal problems and to advise on academic issues (contact maintained during periods of studying abroad). A senior tutor is also available.
- Access to academic staff through an open door policy as well as timetabled tutor meetings, appointment system and e-mail.

- Research seminars and invited lectures.
- Faculty Student Office for the administration of your programme.

Methods for evaluating the quality of teaching and learning

You will have the opportunity to have your say on the quality of the programme in the following ways:

- Completing student evaluation questionnaires for each module of the programme.
- Acting as a student representative on various committees, e.g. Staff/Student Liaison Committees, School Programmes Committee OR providing comments to your student representative to feedback on your behalf.
- Serving as a student representative on Faculty Scrutiny Groups for programme validation.
- Taking part in programme validation meetings by joining a panel of students to meet with the Faculty Scrutiny Group.

Further details on the University's quality assurance processes are given in the [Quality Handbook](#).

Career Opportunities

Student graduating from our BEng and MEng degrees obtain employment as graduate engineers with many leading employers in the civil engineering industry, both consultants and contractors and also regulatory authorities and local authorities. Support is available to students from the first year onwards to develop their CVs and interview skills, and the SUCCESS Scholarship scheme links selected first and second year students with sponsoring companies who provide vacation work experience. Students on the MEng Civil Engineering with a Year in Industry obtain a year's placement with the assistance of the University and the Year in Industry programme, which significantly increases their graduate employability. In addition to careers in civil engineering, the transferrable skills that our students obtain make them attractive to a wide range of graduate recruiters, from financial services through to IT and management consultancy.

External Examiner(s) for the programme

Name: Professor Marios Soutsos - Queen's University Belfast

Students must not contact External Examiner(s) directly, and external examiners have been advised to refer any such communications back to the University. Students should raise any general queries about the assessment and examination process for the programme with their Course Representative, for consideration through Staff: Student Liaison Committee in the first instance, and Student representatives on Staff: Student Liaison Committees will have the opportunity to consider external examiners' reports as part of the University's quality assurance process.

External examiners do not have a direct role in determining results for individual students, and students wishing to discuss their own performance in assessment should contact their Personal Academic Tutor in the first instance.

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided. More detailed information can be found in the programme handbook.

Appendix 1:

Students are responsible for meeting the cost of essential textbooks, and of producing such essays, assignments, laboratory reports and dissertations as are required to fulfil the academic requirements for each programme of study. In addition to this, students registered for this programme also have to pay for:

Additional Costs

Type	Details
Anything else not covered elsewhere	<p>FEEG3003 Individual Project</p> <p>In addition to the experimental, computational and workshop resources available, reasonable expenses for travel and materials of up to £80 may be reclaimed through the Faculty Student Office.</p> <p>http://www.southampton.ac.uk/engineering/undergraduate/modules/feeg3003_individual_project.page</p>
Approved Calculators	<p>Candidates may use calculators in the examination room only as specified by the University and as permitted by the rubric of individual examination papers. The University approved models are Casio FX-570 and Casio FX-85GT Plus. These may be purchased from any source and no longer need to carry the University logo.</p>
Clothing	<p>Protective Clothing (Hard hat; safety boots; hi- viz vest/jackets): CENV1023</p> <p>Students are required to purchase their own safety boots for the Constructionarium. A budget cost of £40 should be allowed for. Information will be given on Blackboard about local suppliers with whom discounts have been negotiated.</p> <p>Fieldcourse clothing:</p> <p>You will need to wear suitable clothing when attending fieldcourses, e.g. waterproofs, walking boots. You can purchase these from any source.</p>
Computer discs or USB drives	<p>CENV2026</p> <p>The costs associated with printing courseworks (approx.20-40 pages) and two CDs to submit computer codes to be covered by the each student.</p> <p>http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv2026_numerical_methods.page?#overview</p>
Design equipment and materials	<p>Standard construction/modelling materials will be provided where appropriate, unless otherwise specified in a module profile. For customisation of designs/models calling for material other than standard construction/modelling materials, students will bear the costs of such alternatives.</p> <p>CENV1023</p> <p>Students are provided with a sketch book and drawing equipment for design at the start of the year, but replacement costs are borne by the student -.</p> <p>CENV1023</p> <p>A range of standard construction materials are provided to support the Design Project within this module. However, students are encouraged to develop unique designs and choose alternative materials, the costs of which will be covered by the Faculty should they be deemed appropriate and clearly presented by a given cut-off date. The costs of additional materials and components identified after this date would be borne by the student group.</p> <p>http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv1023_construction_design_and_materials.page?</p> <p>CENV2026</p> <p>A range of standard construction materials are provided to support the design projects within this module. However, students are encouraged to develop unique designs and choose alternative materials, the costs of which will be</p>

	<p>covered by the Faculty should they be deemed appropriate and clearly presented by a given cut-off date. The costs of additional materials and components identified after this date would be borne by the student group. http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv2026_numerical_methods.page?#overview</p> <p>CENV2028 A range of standard construction materials are provided to support the design projects within this module. However, students are encouraged to develop unique designs and choose alternative materials, the costs of which will be covered by the Faculty should they be deemed appropriate and clearly presented by a given cut-off date. The costs of additional materials and components identified after this date would be borne by the student group. Students are expected to cover the costs associated with the printing of drawings and graphic presentations. These are typically expected to be of the order of £50 per group (typically five students per group), also depending on the quality of printing chosen. http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv2028_design_2.page?</p> <p>CENV3015 A range of standard construction materials are provided to support the design projects within this module. However, students are encouraged to develop unique designs and choose alternative materials, the costs of which will be covered by the Faculty should they be deemed appropriate and clearly presented by a given cut-off date. The costs of additional materials and components identified after this date would be borne by the student group. http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv3015_design_3.page?</p> <p>CENV3057 A range of standard construction materials are provided to support the design projects within this module. However, students are encouraged to develop unique designs and choose alternative materials, the costs of which will be covered by the Faculty should they be deemed appropriate and clearly presented by a given cut-off date. The costs of additional materials and components identified after this date would be borne by the student group. http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv3057_urban_design.page?</p>
Field Equipment and Materials	<p>CENV1025 For field trips, students will need to wear suitable clothing e.g. waterproofs and stout shoes. You can purchase these from any source. Travel for field trips will be provided. Students will be expected to bring or purchase their own lunch and any additional refreshments http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv1025_civil_and_environmental_engineering_fundamentals.page?</p>
Optional Visits (e.g. museums, galleries)	<p>Some modules may include additional optional visits. You will normally be expected to cover the cost of travel and admission, unless otherwise specified in the module profile.</p>
Printing and Photocopying Costs	<p>In some cases, coursework and/or projects may be submitted electronically. Where it is not possible to submit electronically students will be liable for printing costs, which are detailed in the individual Module Profile.</p> <p>CENV1023. Students are expected to cover the costs associated with the printing of drawings and graphic presentations. These are typically expected to be of the order of £50 per group (typically three students per group), also depending on the quality of printing chosen. CENV2026 Students are expected to cover the costs associated with the printing of drawings and graphic presentations. These are typically expected to be of the order of £50 per group (typically five students per group), also depending on the quality of printing chosen. .</p>

	<p>http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv2026_numerical_methods.page?#overview</p> <p>CENV2028 Students are expected to cover the costs associated with the printing of drawings and graphic presentations. These are typically expected to be of the order of £50 per group (typically five students per group), also depending on the quality of printing chosen. http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv2028_design_2.page?</p> <p>CENV3015 Students are expected to cover the costs associated with the printing of drawings and graphic presentations. These are typically expected to be of the order of £50 per group (typically five students per group), also depending on the quality of printing chosen. http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv3015_design_3.page?</p> <p>CENV3057 Students are expected to cover the costs associated with the printing of drawings and graphic presentations. These are typically expected to be of the order of £50 per group (typically five students per group), also depending on the quality of printing chosen. http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv3057_urban_design.page?</p> <p>FEEG3003 Students are responsible for the printing costs of their poster for the Poster Presentation Day. This may range from approximately £5 - £20. http://www.southampton.ac.uk/engineering/undergraduate/modules/feeg3003_individual_project.page</p> <p>In addition to the experimental, computational and workshop resources available, reasonable expenses for travel and materials of up to £100 may be reclaimed through the Faculty Student Office.</p> <p>FEEG6013 – Group Design project Students are expected to cover the costs associated with the printing and binding of reports and the printing of drawings and graphic presentations. These are typically expected to be of the order of £100 per group, also depending on the quality of printing and binding chosen. Note that funds from the project's budget cannot be used for this purpose http://www.southampton.ac.uk/engineering/undergraduate/modules/feeg6013_group_design_project.page?#overview</p>
Stationery	You will be expected to provide your own day-to-day stationary items, e.g. pens, pencils, notebooks, etc). Any specialist stationery items will be specified under the Additional Costs tab of the relevant module profile.
Textbooks	<p>Where a module specifies core texts these should generally be available on the reserve list in the library. However due to demand, students may prefer to buy their own copies. These can be purchased from any source.</p> <p>Some modules suggest reading texts as optional background reading. The library may hold copies of such texts, or alternatively you may wish to purchase your own copies. Although not essential reading, you may benefit from the additional reading materials for the module.</p> <p>CENV3020 Students may wish to purchase a copy of the Powrie textbook, cost circa £40. http://www.southampton.ac.uk/engineering/undergraduate/modules/cenv3020_geotechnical_engineering.page?</p> <p>FEEG1002</p>

	Book: Callister, cost circa £60, but large number available in library http://www.southampton.ac.uk/engineering/undergraduate/modules/feeg1002_mechanics_structures_and_materials.page?
Travel Costs for placements	FEEG3009 Industrial Placement year. You will need to find your own accommodation near to your place of work. You are responsible for travel and subsistence costs.

In some cases, you'll be able to choose modules (which may have different costs associated with that module) which will change the overall cost of a programme to you. Details of such costs will be listed in the Module Profile. Please also ensure you read the section on additional costs in the University's Fees, Charges and Expenses Regulations in the University Calendar available at www.calendar.soton.ac.uk.