Course Specification

BSc (Hons) Civil Engineering

Course Code: CIVIL

2020/21

leedsbeckett.ac.uk
BSc (Hons) Civil Engineering

Material Information Summary for 2020/21 Entrants

Confirmed at 19th July 2019

General Information

Award
Bachelor of Science (with honours) Civil Engineering

Contained Awards
Bachelor of Science Civil Engineering
Diploma of Higher Education Civil Engineering
Certificate of Higher Education Civil Engineering

Awarding Body
Leeds Beckett University

Level of Qualification & Credits
Level 6 of the Framework for Higher Education Qualifications, with 120 credit points at each of Levels 4, 5 and 6 of the UK Credit Framework for Higher Education (360 credits in total)

Course Lengths & Standard Timescales

The standard start date for Leeds Beckett University induction week is reproduced below and relates to the majority of students starting a course in September 2020. A proportion of courses have alternate start dates which are displayed on the online prospectus and additionally will be notified to the students concerned via the offer letter. Non-September starters will also have their start dates confirmed in their offer letters.

- 3 years (full time, campus based)
  Starts 21st September 2020 / Ends June 2023
- 4 years (full time, campus based with one year work placement)
  Starts 21st September 2020 / Ends June 2024
- 5 years (part time, campus based)
  Starts 21st September 2020 / Ends June 2025

Part Time Study
PT delivery is usually at half the intensity of the FT equivalent course, although there may be flexibility to increase your pace of study to shorten the overall course duration. Some modules may be delivered in a different sequence to that advertised within this Course Specification but the modules offered within each level are as advertised. Please note that the work placement option is not available to PT students.

Location(s) of Delivery
City Campus, Leeds (plus location of work placement, if applicable)

Entry Requirements
Admissions criteria are confirmed in your offer letter. Details of how the University recognises prior learning and supports credit transfer are located here: http://www.leedsbeckett.ac.uk/studhub/recognition-of-prior-learning/
Course Fees

Course fees and additional course costs are confirmed in your offer letter.

Timetable Information

Timetables will be made available to students during induction week via:

i) The Student Outlook Calendar
ii) The Student Portal
iii) The Leeds Beckett app

Any difficulties relating to timetabled sessions can be discussed with your Course Administrator.

Policies, Standards and Regulations

http://www.leedsbeckett.ac.uk/public-information/

The following regulatory exemption applies:

Prerequisite for students to achieve 45% in level 4 Engineering Mechanics module in order to access the elective module Structural Analysis at level 5

Prerequisite to dissertation elective module - students required to achieve an average of 65% or more at level 5 to be able to select dissertation module at level 6. Those who achieve less than 65% will complete the Major Project module instead.

The University Academic Regulations apply in addition to the above.

Key Contacts

Your Course Director Tom Craven

Your Academic Advisor Each Student will be allocated an Academic Advisor once they commence their studies at the University. The Academic Advisor will be a member of the Civil Engineering Academic Staff.

Your Course Administrator Melissa Argyle

Placement Information

Summary Leeds Beckett is dedicated to improving the employability of our students and one of the ways in which we do this is to support our students to gain valuable work experience through work-based placements. Our placement teams have developed strong links with companies, many of whom repeatedly recruit our students into excellent placement roles and the teams are dedicated to supporting students through every stage of the placement process. More information about the many benefits of undertaking a work placement, along with details about how to contact our placement teams can be found here: http://www.leedsbeckett.ac.uk/studenthub/placement-information/
**Length**
Placements should be 44 weeks and undertaken during the third year of full time student, upon successful completion of level 5/year 2.

**Location**
*Students will obtain their own placement and therefore the location will be the location of the company with whom they undertake their placement.*

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**Professional Accreditation or Recognition Associated with the Course**

**Professional Body**
Joint Board of Moderators (JBM) - on behalf of 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).

**How is Accreditation/ Recognition Achieved?**

*This course is an Accredited IEng degree Accredited IEng (Full)*
This degree is accredited as fully satisfying the educational base for an Incorporated Engineer (IEng). See www.jbm.org.uk for further information.

**Course Accreditation/ Recognition Period**
Accreditation applied to student intakes 2016-2020

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**Course Overview**
The course aims to provide a broad-based educational experience, enabling successful students to enter careers in the civil engineering and allied sector. At present, there is a significant shortfall in the number of graduate civil engineers in the UK and, in a global context, particularly within the emerging economies. In the future, students who have studied STEM subject disciplines are going to be in great demand. The target group for the BSc (Hons) Civil Engineering programme is therefore students seeking to become engineering practitioners employed in the civil engineering and related disciplines, i.e. design consultancy, site based contractors, project management, government agencies and local authorities, modelling and a variety of specialist design areas.

This programme is seen as a stepping stone for students who enjoy problem-solving and would like to be involved in a diverse and interesting career and the opportunity to work on such projects as designing large structures and a variety of infrastructure including roads, water supply and drainage, bridges, airports, tunnels, sea and flood defences and structures supporting energy supply and transmission.

The award learning aims are:

- To provide the knowledge and understanding of the scientific, mathematical and engineering principles and methodologies that underpin Civil Engineering
- To enable students to undertake independent critical analysis, enhancing their intellectual development and developing their ability to produce optimal solutions to complex engineering problems
- To develop a range of graduate skills relevant to a career in the modern civil engineering industry including all forms of digital and multi-media communication, problem-solving, individual motivation and team working.
- To ensure that successful graduates will have the potential to contribute to advances in engineering and be capable of accepting extensive managerial responsibilities
- To establish an appropriate foundation for a lifetime of continuing professional development
- The programme also aims to provide the educational requirements for graduate membership of ICE and engineering council accreditation for IEng status

These aims have been written to take account of the UK-SPEC General Learning Outcomes and Engineering subject benchmark statements.
Course Learning Outcomes

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<td>1</td>
<td>Demonstrate knowledge and understanding of mathematics, science, and engineering principles across a range of civil engineering subjects, notably structural engineering, geotechnical and highway engineering, civil engineering materials, hydraulics, surveying and civil engineering Management.</td>
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<tr>
<td>2</td>
<td>Identify design requirements and use analytical techniques and design practice to produce practical solutions relevant to the role of an Incorporated Engineer.</td>
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<tr>
<td>3</td>
<td>Understand the iterative analytical nature of engineering problems in determining cost effective, sustainable and robust solutions utilising contemporary digital technologies, advanced computing techniques, and traditional manual methods.</td>
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<tr>
<td>4</td>
<td>Use contemporary Codes of Practice and be aware of the regulatory framework in which design is practiced. Demonstrate an appreciation of the role of the designer in achieving whole-life performance especially with regard to health and safety and sustainable development.</td>
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<tr>
<td>5</td>
<td>Recognise the importance of leadership, teamwork and communication applicable to the role of an incorporated engineer and demonstrate relevant aspects, utilising appropriate interpersonal skills, whilst working both as a team member and individually.</td>
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<td>6</td>
<td>Demonstrate knowledge of the context in which civil engineering projects are delivered and managed through procurement, contract administration, planning and performance. Apply contemporary legislative requirements with regards to health and safety and environmental impact to contextualise entry level knowledge in civil engineering.</td>
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Teaching and Learning Activities

Summary

All modules on the course are designed for formal lecture based delivery, accompanied by tutorial, laboratory practical and fieldwork sessions to consolidate student learning and enhance the student experience.

Student support and pastoral care is provided by the course team via a dedicated course administrator as well as subject specialist tutors, personal tutors, module leaders, level tutors and the course leader. In addition, the team operate an open access policy which gives students easy access to academics outside of taught sessions.

Emphasis is placed on the application of engineering principles to the practical solution of increasingly complex engineering problems. Aspects of the course which are particularly relevant to professional and transferable skills development and employability are:

- A broad range of study covering both technical and management-based subjects which build knowledge, understanding and application across levels.
- Design solutions to practical problems. Initially simple problems with tutor lead design solutions. The problems presented become increasingly complex, necessitating imagination and judgement in developing a practical solution. At all levels, the design problems are case study based and relevant to current industry practice.
- Hands-on experience in IT, Surveying and laboratory testing. Again, at Level 4, these exercises are basic and tutor led. As the course progresses, students work to less detailed briefs and are expected to develop innovative solutions based on experience.
- The PSRB requires that threads (Design, Health Safety and Risk Management, Sustainability) permeate the curriculum both horizontally and vertically and this is embedded in the modular content.

Exposure to professional practice. Industry standard software is used for analysis, design, drawing and planning. Students are also taught to the latest Eurocode design standards and the government endorsed NEC3 Contracts. Further exposure is through visiting speakers, a professional body (ICE) compliant PDP scheme and site visits.
Your Modules

(Correct for students progressing through the programme within standard timescales. Students who are required to undertake repeat study may be taught alternate modules which meet the overall course learning outcomes. Details of module delivery will be provided in your timetable).

Level 4 Core Modules (2020/21 for FT students and 2020/21 and 2021/22 for standard PT students)

Surveying A and CAD, (FT only)
Site Surveying and CAD, (PT only)
Civil Engineering Management A,
Civil Engineering Mathematics,
Engineering Materials Science,
Engineering Mechanics,
Civil Engineering Project, (FT only)
Civil Engineering Tech. Project, (PT only)

Level 5 Core Modules (2021/22 for FT students and 2022/23 and 2023/24 for standard PT students)

Highway Engineering A,
Geotechnical Engineering A,
Structural Design,
Civil Engineering Management B,
Engineering Materials Technology,

Level 5 Option Modules (delivery years as per Level 6 core modules above)

The following option modules are indicative of a typical year. There may be some variance in the availability of option modules

Civil Engineering Design Project (Elective),
Civil Engineering Design Project - EWB (Elective),
Structural Analysis (Elective),

Level 6 Core Modules (2022/23 for FT students, 2023/24 for sandwich placement students and 2024/25 and 2025/26 for standard PT students)

Quantitative Methods for Decision Making,
Hydraulics and Water Engineering,
Civil Engineering Major Project
**Level 6 Option Modules (delivery years as per Level 6 core modules above)**

The following option modules are indicative of a typical year. There may be some variance in the availability of option modules.

- Structural Engineering (Elective),
- Highway Engineering B (Elective),
- Geotechnical Engineering B (Elective),
- Infrastructure Asset Management (Elective),
- Civil Engineering Dissertation*

**Assessment Balance and Scheduled Learning and Teaching Activities by Level**

Whilst overall workload will be informed by the core and optional module, where applicable, at each level, the following information provides an indication of the time required (hours) for different activities on your course:

<table>
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<tr>
<th>Overall Workload</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
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<tbody>
<tr>
<td>Teaching, Learning and Assessment</td>
<td>50-60</td>
<td>50</td>
<td>40-50</td>
</tr>
<tr>
<td>Independent Study</td>
<td>140-150</td>
<td>150</td>
<td>140-150</td>
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</tbody>
</table>

A standard module equates to 200 notional learning hours, which may be comprised of teaching, learning and assessment, placement activities and independent study. Sandwich placement years spent out of the University are not included in the calculation unless they are credit bearing and attributed to a level of the course. Modules may have more than 1 component of assessment.

Level 4 is assessed by examinations predominantly, with some coursework*.

Level 5 is assessed by examinations predominantly, with some coursework*.

Level 6 is assessed by coursework* predominantly, with some examinations.

*Some coursework is practical laboratory based, see module specifications for details.
Learning Support

If you have a question or a problem relating to your course, your Course Administrator is there to help you. Course Administrators work closely with academic staff and can make referrals to teaching staff or to specialist professional services as appropriate. They can give you a confirmation of attendance letter, and a transcript. You may also like to contact your Course Rep or the Students’ Union Advice team for additional support with course-related questions.

If you have any questions about life at our University in general, call into or contact the Student Hub on either campus to speak to our Student Experience Team. This team, consisting of recent graduates and permanent staff, are available to support you throughout your time here. They will make sure you have access to and are aware of the support, specialist services, and opportunities our University provides. There is a Student Hub on the ground floor of the Rose Bowl at City Campus and one in Campus Central at Headingley. You can also find the team in the Gateway in the Leslie Silver Building at City Campus. The telephone number is 0113 812 3000, and the e-mail address is StudentHub@leedsbeckett.ac.uk.

Within MyBeckett you will see two tabs (Support and Opportunities) where you can find online information and resources for yourselves. The Support tab gives you access to details of services available to give you academic and personal support. These include Library Services, the Students’ Union, Money advice, Disability advice and support, Wellbeing, International Student Services and Accommodation. There is also an A-Z of Support Services, and access to online appointments/registration.

The Opportunities tab is the place to explore the options you have for jobs, work placements, volunteering, and a wide range of other opportunities. For example, you can find out here how to get help with your CV, prepare for an interview, get a part-time job or voluntary role, take part in an international project, or join societies closer to home.