LEEDS BECKETT UNIVERSITY

Course Specification

MEng Building Services Engineering

Course Code: MBSEN

2026/27

leedsbeckett.ac.uk

MEng Building Services Engineering (MBSEN)

Applicant Facing Course Specification for 2026/27 Undergraduate Entrants

Confirmed at

General Information

Award	Master of Engineering Building Services Engineering
Contained Awards	Bachelor of Engineering with Honours Building Services Engineering (Level 6) Bachelor of Engineering Building Services Engineering (Level 6) Diploma of Higher Education Building Services Engineering (Level 5) Certificate of Higher Education Building Services Engineering (Level 4)
Awarding Body	Leeds Beckett University
Level of Qualification and Credits	Level 7 of the Framework for Higher Education Qualifications, with 120 credit points at each of Levels 4, 5, 6 and 7 of the UK Credit Framework for Higher Education (480 credits in total).
Course Lengths and Standard Timescales	Start dates will be notified to students via their offer letter. The length and mode of delivery of the course is confirmed below: • 4 years (full time, campus based) • 5 years (full time, sandwich, campus based) • 7 years (part time, campus based)
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 defined within this information set but the modules offered within each level are consistent. Please note that the work placement option is not generally available to PT students.
Location(s) of Delivery	The majority of teaching will be at Headingley campus but on occasion may be at City campus. Students are responsible for obtaining their own placement, with assistance from the University. The locations will vary, dependant on the opportunity.
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: https://www.leedsbeckett.ac.uk/student-information/course-information/recognition-of-prior-learning/ Admissions enquiries may be directed to: AdmissionsEnquiries@leedsbeckett.ac.uk.
Course Fees	Course fees are confirmed in your offer letter. A breakdown of any additional costs is included on the online prospectus entry for this course. Fees enquiries may be directed to Fees@leedsbeckett.ac.uk.

Policies, Standards and Regulations (www.leedsbeckett.ac.uk/academicregulations)

In line with a recent Engineering Council directive, a Regulation Exemption has been approved by the University which states that:

"Students must pass all modules which are mapped to Accreditation of Higher Education Programme (AHEP) learning outcomes with an overall mark of not less than 40% in the combined assessments, with a submission in each component for each module.

If students do not achieve these marks at the first attempt they will have the chance to undergo a re-sit in that particular area; if they still fail to achieve the marks at this attempt they will not be allowed to progress onto the following year until they have completed the module again and achieved the above mark.

Failure at the second attempt at a module will result in a student's withdrawal from the course."

Professional Accreditation or Recognition Associated with the Course

Professional Body

Accreditation for Chartered Engineer status (CEng) will be sought in conjunction with the Chartered Institution of Buildings Services Engineers and the Engineering Council UK when a full cohort of students have completed the programme.

'In Year' Work Placement Information

Summary

The course contains a placement year.

40 weeks, undertaken between year 2 and year 3 (level 5 and level 6)

Placement Delivery

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.

Location

Students are responsible for obtaining their own placement, with assistance from the University. The locations will vary, dependant on the opportunity.

Approval

Whilst students source their own placements, they will need to meet requirements which will be outlined before module enrolment.

Timetable Information

Timetables for Semester 1 will be made available to students during induction week via:

i) The Student Portal (MyBeckett)
ii) The Leeds Beckett app

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

Key Contacts

Your Course Director	Mike White
Your Course Administrator	Vanessa Melara – V.Melara@leedsbeckett.ac.uk

Course Overview

Aims

The aims of the programme are to:

The course aims to provide a broad-based educational experience, enabling successful students to enter careers in the building services engineering and allied sector. At present there is a significant shortfall in the number of graduate Building Services 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 MEng programme is therefore students seeking to become engineering practitioners employed in the building services engineering and related disciplines i.e. design, mechanical and electrical estimating, services project management, low carbon buildings design, architectural engineering and controls engineering. 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 with

opportunities to work on such projects as designing 'clean room' ventilation systems for the pharmaceutical industries, low energy lighting solutions for education establishments and intelligent building systems for international clients.

The award learning aims are:

- Provide the knowledge and understanding of the scientific, mathematical and engineering principles and methodologies that underpin Building Services 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
- Develop a range of graduate skills relevant to a career in the modern building services 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 CIBSE and engineering council accreditation for CEng status

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

Course Learning Outcomes

At the end of the course, students will be able to:

1	Demonstrate the underlying concepts of engineering design and principles, showing ability in the analysis of building energy performance, the application and appraisal of appropriate concept design and its communication to stakeholders from a local, national and global perspective whilst taking into consideration the complex needs of a diverse client base and unfamiliar environments.
2	Demonstrate the competent use and application of industry standard building services engineering software, thus illustrating the student's digital literacy in the resolution of building services design problems.
3	Demonstrate the understanding and use of, commercial and financial judgement and managerial skills in the planning organisation, control and successful delivery of building services projects and enterprises whilst being aware of the impact these techniques can have in a global context.
4	Demonstrate knowledge, understanding, critical thinking and analysis of fundamental issues relating to a Building Services Engineering practitioner operating in diverse social and cultural contexts.
5	To identify and analyse broadly defined problems, evaluate optional strategies and optimise appropriate solutions to building services projects and be able to communicate these solutions to

	a diverse client base and promote low carbon solutions and sustainability in unfamiliar environments.
6	Use a range of skills appropriate to the working environment, including working effectively with diverse construction professionals, using appropriate digital technologies, and communicating effectively with all stakeholders, locally and internationally.
7	Develop the student's research methods and applications and use appropriate communication skills so that the graduates may convey their ideas effectively and imaginatively in a clear and concise manner to both the related professions and to persons outside the industry.

Teaching and Learning Activities

Summary

Formal lectures, tutorials, design project workshops and building case studies will be embedded in the delivery to help to reinforce the learning process. The feedback and progress reviews, extracurricular seminars, field trips and the involvement of industry experts as guest speakers will be used to enrich the learning experience and students' knowledge of current issues within the building services engineering environment.

This course will feature a mix of blended learning, both online and in person. Lectures and seminars will be live.

Your Modules

This information is correct for students progressing through the programme within standard timescales. Option modules listed are indicative of a typical year. There may be some variance in the availability of option modules. 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.

Full Time Delivery

Level 4
Compulsory modules

Module title	**Credits**	**Semester/ teaching period**
Building Services Design Principles	20	S1
Maths for Electronics and Electrical Engineering	20	S1
Management Principles and Applications	20	S1
Thermo Fluids	20	S2
Electrical and Electronics Principles	20	S2
Mechanical Services	20	S2
Number of credits of compulsory modules	120	

Level 5
Compulsory modules

Module title	Credits	Semester/ teaching period
Engineering Mathematics	20	S1
Electrical Services and Lighting Systems	20	S1
Airconditioning and Refrigeration Systems	20	S1
BMS and Control Systems	20	S2
Group Design Project	20	S2
Digital Construction Technology and Applications	20	S2
Number of credits of compulsory modules	120	

Level 6
Compulsory modules

Module title	Credits	Semester/ teaching period
Low-Carbon Systems Design	20	S1
Facilities Maintenance and Management	20	S1
Intelligent Building Technologies	20	S2
Building Physics (Modelling and Analysis)	20	S2
Dissertation	40	S1 & S2
Number of credits of compulsory modules	120	

Level 7
Compulsory modules

Module title	Credits	Semester/ teaching period
Sustainable Systems Design	20	S1
Building Information Modelling and Mechanical, Electrical, Plumbing	20	S2
Integrated Project	20	S1 & S2
Research Paper	20	S1 & S2
Number of credits of compulsory modules	80	

Option modules

Module title	Credits	Semester/ teaching period
Sustainable Buildings	20	S1
Humanitarian Engineering	20	S1
Project Management	20	S2
BEMS and Intelligent Buildings	20	S2
Number of credits of option modules a student should choose	40	

Part Time Delivery

Level 4
Compulsory modules

Module title	**Credits**	**Semester/ teaching period**
Building Services Design Principles	20	S1 / Year 1
Maths for Electronics and Electrical Engineering	20	S1 / Year 1
Thermo Fluids	20	S2 / Year 1
Management Principles and Applications	20	S2 / Year 1
Electrical and Electronics Principles	20	S1 / Year 2
Mechanical Services	20	S1 / Year 2
Number of credits of compulsory modules	120	

Level 5
Compulsory modules

Module title	**Credits**	**Semester/ teaching period**
Engineering Mathematics	20	S2 / Year 2
Electrical Services and Lighting Systems	20	S2 / Year 2
BMS and Control Systems	20	S1 / Year 3
Group Design Project	20	S1 / Year 3
Airconditioning and Refrigeration Systems	20	S2 / Year 3
Digital Construction Technology and Applications	20	S2 / Year 3
Number of credits of compulsory modules	120	

Level 6
Compulsory modules

Module title	**Credits**	**Semester/ teaching period**
Low-Carbon Systems Design	20	S1 / Year 4
Facilities Maintenance and Management	20	S1 / Year 4
Intelligent Building Technologies	20	S2 / Year 4
Building Physics (Modelling and Analysis)	20	S2 / Year 4
Dissertation	40	S1 & S2 / Year 5
Number of credits of compulsory modules	120	

Level 7
Compulsory modules

Module title	**Credits**	**Semester/ teaching period**
Sustainable Systems Design	20	S1 / Year 6
BIM and MEP	20	S2 / Year 6
Integrated Project	20	S1 & S2 / Year 7
Research Paper	20	S1 & S2 / Year 7
Number of credits of compulsory modules	80	

Option modules

Module title	Credits	Semester/ teaching period
Project Management	20	S1 / Year 6
BEMS and Intelligent Buildings	20	S1 / Year 6
Sustainable Buildings	20	S2 / Year 6
Humanitarian Engineering	20	S2 / Year 6
Number of credits of option modules a student should choose	80	

Assessment Balance and Scheduled Learning and Teaching Activities by Level

The assessment balance and overall workload associated with this course are calculated from core modules and typical option module choices undertaken by students on the course. They have been reviewed and confirmed as representative by the Course Director but applicants should note that the specific option choices students make may influence both assessment and workload balance.

A standard module equates to 200 notional learning hours, which may be comprised of teaching, learning and assessment, any embedded placement activities and independent study. Modules may have more than one component of assessment.

Assessment

Level 4 is assessed by a mix of online time-controlled tests and coursework

Level 5 is assessed by examinations predominantly, with some coursework and practical assessments.

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

Level 7 is assessed by a mix of coursework, projects and presentations

Workload

Overall Workload	Level 4	Level 5	Level 6	Level 7
Teaching, Learning and Assessment	216 hours	228 hours	184 hours	216 hours
Independent Study	984 hours	972 hours	1016 hours	984 hours
Placement (optional)		40 weeks		