

DEFINITIVE COURSE RECORD

Course Title	HND Construction and the Built Environment (Building Services Engineering) [progression route]
Awarding Bodies	Pearson
Level of Award ¹	FHEQ Level 5
Professional, Statutory and Regulatory Bodies Recognition	Chartered Institute of Building Services Engineers
Credit Structure ²	95 Credits Level 4: 15 Credits Level 5: 75 Credits
Mode of Attendance	Part-time
Standard Length of Course ³	1 year Part-Time
Intended Award	HND Construction and the Built Environment (Building Services Engineering)
Named Exit Awards	None
Entry Requirements ⁴	<ul style="list-style-type: none"> • A BTEC Level 4 qualification in Construction and the Built Environment with the necessary unit score of 160 credits. This course is intended only for West Suffolk College students who undertook the extended HNC with 160 credits. Other enquirers will need to discuss their opportunities with the Course Director.
Delivering Institution(s)	University of Suffolk at West Suffolk College
UCAS Code	N/A

This definitive record sets out the essential features and characteristics of the HND Construction and the Built Environment (Building Services Engineering) [progression route] course. The information provided is accurate for students entering this progression route in the 2017-18 academic year.⁵

Course Summary

This pathway has a core of units, four at Level 5 which are mandatory and cannot be changed or substituted.

The course offers the units in table below and it should be understood that this course will run for one year to allow previous students with the 160 credit HNC to achieve an HND under the 2010-2016 Pearson's Registration undertaken with a credit score of 160. For new entrants a 3 year part time HND is available.

¹ For an explanation of the levels of higher education study, see the [QAA Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies \(2014\)](#)

² All academic credit awarded as a result of study at the University adheres to the [Higher education credit framework for England](#).

³ Where the course is delivered both full-time and part-time, the standard length of course is provided for the full-time mode of attendance only. The length of the part-time course is variable and dependent upon the intensity of study.

⁴ Details of standard entry requirements can be found in the [Admissions Policy](#)

⁵ The University reserves the right to make changes to course content, structure, teaching and assessment as outlined in the [Admissions Policy](#).

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Course Aims

The Level 5 Higher National Diploma in Construction and the Built Environment (Building Services) offers students a broad introduction to the subject area via a mandatory core of learning, while allowing for the acquisition of some sector-specific skills and experience through the specialist units in each pathway, with the opportunity to pursue a particular interest through the appropriate selection of optional units. Students will gain a wide range of sector knowledge tied to practical skills gained in research, self-study, directed study and workplace activities.

This qualification aims to:

- Develop a range of skills and techniques, personal qualities and attributes essential for successful performance in working life and thereby enable learners to make an immediate contribution to employment at the appropriate professional level
- Prepare for a range of technical and management careers in electrical engineering
- Communication engineering equipping individuals with knowledge, understanding and skills for success in employment in the electrical engineering-based industry
- Provide specialist studies relevant to individual vocations and professions in which learners are working or intend to seek employment in electrical engineering and its related industries
- Enable progression to or count towards an undergraduate degree or further professional qualification in Construction and the Built Environment (Building Services) or related area
- Provide a significant educational base for progression to Incorporated Engineer level.

Course Learning Outcomes

The following statements define what students graduating from the HND Construction and the Built Environment (Building Services Engineering) [progression route] course will have been judged to have demonstrated in order to achieve the award. These statements, known as learning outcomes, have been formally approved as aligned with the generic qualification descriptor for level 4/5 awards as set out by the UK Quality Assurance Agency (QAA).⁶

1. Demonstrate an advanced knowledge and use of essential scientific principles and well established principles of Building Services Engineering to produce routine solutions to familiar building services engineering problems and using this knowledge to model and analyse routine building services engineering systems, processes and products
2. Apply major construction and the built environment building services management, mathematical and scientific principles which underpin the design and operation of building services engineering systems and an awareness of the functionality of standard methods, knowledge of the calculation of costs associated with building services engineered products and services, an understanding of modern measurement principles and how they are applied in industry, or using number systems, graphical and numerical methods, vectors, matrices and ordinary differential equations to analyse, model and solve realistic engineering problems.
3. Demonstrate the development of practical skills that are theoretically grounded, as required of electrical/electronic engineers/technicians who are employed at a professional level in a variety of types of technical work, such as in: electrical, electronic or communication design, manufacture, maintenance and technical services areas of the engineering industry including management and consultancy

⁶ As set out in the [QAA Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies \(2014\)](#)

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4. Engage in developing personal and professional skills required of employers, demonstrating the appropriate personal qualities and attributes consistent with professional practice in Engineering and preparing the student for a range of technical and management careers within the field.
5. Demonstrate an understanding of building management system topics and focussing on the use of these in complex buildings
6. Apply fundamental analytical knowledge and techniques used for analysis, modelling and solution of realistic engineering problems within building services engineering
7. Evidence a logical process of development by applying the concepts of a measurement system, the associated terminology and the correct applications of test equipment for particular engineering scenarios.
8. Use skills and knowledge developed during the course to select a project and agree specifications, implement and evaluate the project management techniques and procurement routes to enable a successful conclusion to the project.
9. Display an understanding of the limits of their knowledge, and how this influences analyses and interpretations based on that knowledge, as well as areas for potential further research

Course Design

The design of this course has been guided by the following QAA Benchmarks / Professional Standards:

- This will follow the Pearson's BTEC Level 5 HND Diploma in Construction and the Built Environment (Building Services) (QCF), June 2015.

Course Structure

The HND Construction and the Built Environment (Building Services Engineering) [progression route] comprises modules at levels 4 and 5.

Module Specifications for each of these modules is included within the course handbook, available to students on-line at the beginning of each academic year.

	Module	Credits	Unit Type ⁷
Level 4			
	Building Management Systems for Building Services Engineering.	15	M
Level 5			
	Management Principles and Applications for Construction and the Built Environment	15	M
	Applied Mathematics Complex Engineering Problems	15	M
	Project Management for Building Services Engineering	15	M
	Contractual Procedures or Procurement for Construction and the Built Environment	15	O

⁷ Units designated as mandatory core (MC) must be taken and passed in order to achieve the award. For further information, see the [Framework and Regulations for Higher National Awards](#)

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	Personal and Professional Development	15	S
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All modules are required to be successfully completed by the student to achieve the award and the unit type descriptions are provided to meet the Pearson guidelines.

Awards

On successful completion of the course, students will be awarded a HND Construction and the Built Environment (Building Services Engineering).

Course Delivery

The course is delivered at the University of Suffolk at West Suffolk College. Students studying full-time on HND Construction and the Built Environment (Building Services Engineering) [progression route] are likely to have approximately 7 hours contact per week with approximately 26 hours independent study per week. There will also be allocated an additional 2 hour tutorial slot for students at the end of the day. Students will normally be expected to undertake 21 hours of independent study in an average week, and this will include your work based learning.

Course Assessment

A variety of assessments will be used on the course to enable students to experience and adapt to different assessment styles. The assessment methods used will be appropriate to assess each module's intended learning outcomes. Assessment on the course overall will be approximately 85% coursework (including essays, reports, presentations, group work, reflective learning journals and research projects), with timed assignments for the mathematics module.

Course Team

The academic staff delivering this course are drawn from a team that includes teaching specialists and current practitioners. All staff are qualified in their subjects with their own specialist knowledge to contribute.

Course Costs

Students undertaking HND Construction and the Built Environment (Building Services Engineering) [progression route] will be charged tuition fees as detailed below.

Student Group	Tuition Fees
Full-time UK/EU	£6,168 per year
Part-time UK/EU	£1,028 per 20 credit module £771 per 15 credit module
Full-time International	£6,168 per year
Part-time International	£1,028 per 20 credit module £771 per 15 credit module

Payment of tuition fees is due at the time of enrolment and is managed in accordance with the Tuition Fee Policy.

Students are likely to incur other costs for equipment, materials, optional field trips, exhibitions amounting to approximately £100 per year.

Academic Framework and Regulations

This course is delivered according to the Framework and Regulations for Higher National Awards and other academic policies and procedures of the University and published on the [website](#).