

**DEFINITIVE COURSE RECORD**

Course Title	<b>BSc (Hons) Civil Engineering [degree apprenticeship]</b>
Awarding Body	<b>University of Suffolk</b>
Level of Award <sup>1</sup>	<b>FHEQ Level 6</b>
Professional, Statutory and Regulatory Bodies Recognition	<b>Joint Board of Moderators (JBM)</b>
Credit Structure <sup>2</sup>	<b>360 Credits Level 4: 120 Credits Level 5: 120 Credits Level 6: 120 Credits</b>
Mode of Attendance	<b>Part-time</b>
Standard Length of Course <sup>3</sup>	<b>5 years part-time</b>
Intended Award	<b>BSc (Hons) Civil Engineering</b>
Named Exit Awards	<b>DipHE Civil Engineering CertHE Civil Engineering</b>
Entry Requirements <sup>4</sup>	<ul style="list-style-type: none"> <li>- <b>80 UCAS tariff points from an appropriate Level 3; Qualification or sufficient work experience and maturity to become a degree apprentice;</b></li> <li>- <b>Have already attained a minimum of level 2 English and Maths or be able to achieve this prior to taking the EPA;</b></li> <li>- <b>Maths at level 3 or demonstration of capability to study maths at level 4/5 through completion of a pre-course assessment;</b></li> <li>- <b>Support of employer</b></li> </ul>
Delivering Institution(s)	<b>University of Suffolk at Suffolk New College</b>
UCAS Code	<b>Not applicable</b>

This definitive record sets out the essential features and characteristics of the BSc (Hons) Civil Engineering [degree apprenticeship] course. The information provided is accurate for students entering level 4 in the 2018-19 academic year<sup>5</sup>.

**Course Summary**

This Degree Apprenticeship programme is designed for those interested in working as designers, engineers or managers within the Civil Engineering and Construction industry and who are employed as apprentices by their employer. It provides a thorough grounding in the role and function of the Civil Engineer and their many specialist areas of practice. Apprentices will come from a variety of employment backgrounds including general civil

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

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

<sup>3</sup> 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. Further information about mode of study and maximum registration periods can be found in the [Framework and Regulations for Undergraduate Awards](#).

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

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

## **DEFINITIVE COURSE RECORD**

engineering, local government, highways management, structural design and specialist sub-contracting companies. Apprentices study the environmental impact of construction activity, engineering principles, contracts management and mathematics as well as a wide range of theoretical and practical subjects including materials technology, structures, geology, and hydraulics using the extensively equipped laboratory. Several of the subjects within these programmes are delivered by practicing, full-time professional engineers who bring with them a wealth of practical experience of their subject and of the Civil Engineering industry. The apprenticeship is based in the apprentice's workplace with 20% of the programme being delivered as 'off the job' training and this includes activities such as attendance at college for taught input and group work along with more individually focused activities including, research and study, tutorial support, online learning, e-portfolio development and workplace mentor meetings. At the end of the apprenticeship, when apprentices have gained the BSc (Hons) Civil Engineering as well as demonstrated a wide range of skills, knowledge and behaviours in the workplace, they will take an end-point assessment which, upon successful completion, will enable them to register as an 'Incorporated Engineer' with the Engineering Council in the United Kingdom. Consequently, they will be entitled to put the letters 'BSc (Hons) IEng' after their name and will also benefit from recognition of their professional skills, knowledge and behavior throughout the world.

### **Course Aims**

Overall, the Civil Engineering apprentice will be able to demonstrate:

- The ability to develop, monitor and update a plan, to reflect a changing operating environment;
- The ability to monitor and adjust a personal programme of work on an on-going basis, and to learn independently;
- An understanding of different roles within a team, and the ability to exercise leadership;
- The ability to learn new theories, concepts and methods, etc. in unfamiliar situations.

Students will have the opportunity to demonstrate their achievement in relation to these issues, through their coursework and performance on the programme.

### **Course Learning Outcomes**

The following statements define what students graduating from the BSc (Hons) Civil Engineering [degree apprenticeship] 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 6 awards as set out by the UK Quality Assurance Agency (QAA)<sup>6</sup>.

---

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

## **DEFINITIVE COURSE RECORD**

On successful completion of this course, an apprentice will have met the following:

### **A. Knowledge and understanding**

By the end of the course you should be able to:

- Demonstrate your knowledge and understanding of the essential facts, concepts, theories and principles of Civil Engineering in relation to a wide range of engineering situations;
- Demonstrate your knowledge and understanding of the relationship between the different aspects of the Civil Engineering profession, their relationship to the wider issues of the built environment professions and their underlying principles; and
- Demonstrate a critical understanding of the social, environmental, ethical, economic and commercial implications of the work of the Civil Engineering industry.

### **B. Mental or cognitive skills**

By the end of the course you should be able to:

- Apply appropriate quantitative science and engineering tools to the analysis of problems;
- Demonstrate creative and innovative ability in the synthesis of solutions and in formulating designs;
- Comprehend the broader context of Civil Engineering problems and be able to provide solutions to problems at an appropriate level of detail.

### **C. Subject Specific and Practical Skills**

By the end of the course you should be able to:

- Understand and apply the underpinning scientific and mathematical skills essential to support the study of engineering structures, materials, geology and hydraulics and the design of appropriate and economic solutions;
- Analyse Civil Engineering problems using appropriate combinations of theoretical understanding, computer software and laboratory experimentation in the study of engineering materials, structures, hydraulics and natural geology;
- Produce designs which are economically viable, involve an appropriate level of engineering complexity and use an advantageous combination of established and innovative practice;
- Analyse, understand, interpret and evaluate Civil Engineering problems and their solutions in the contexts of economic, social and environmental appropriateness;
- Apply your developing knowledge and understanding of Civil Engineering practice in your chosen branch of the Civil Engineering profession.

## DEFINITIVE COURSE RECORD

### Course Design

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

QAA Benchmarks:

- Engineering (2010)

Professional Standards:

- JBM
- UK-SPEC Engineering Technician, Incorporated Engineer and Chartered Engineer Standard

Apprenticeship Standards:

- Civil Engineering Degree Apprenticeship Standards

### Course Structure

The BSc (Hons) Civil Engineering [degree apprenticeship] comprises modules at levels 4, 5 and 6. This course is made up entirely of Mandatory modules, which are modules that you must take and pass in order to meet the requirements for your award.

Note that all modules are mandatory and there are no optional modules. The course is designed to give you the opportunity to look into aspects of your work and its impact on your employer.

The degree apprenticeship programme is divided into five years in which you will study four modules per year for the first three years and then there are three modules per year for the 4<sup>th</sup> and 5<sup>th</sup> years (the dissertation in the 5<sup>th</sup> year is a double module). Year 1 consists of level 4 modules; Year 2 is made up of two level 4 modules and two level 5 modules; and Year 3 is made up of four, level 5 modules. Years 4 and 5 are all level 6 modules. Each module is discrete but as you progress through the programme, you are expected to be increasingly able to relate material between modules so as to build and present a broader context for each piece of work. Additionally, as you progress from level 4 to level 5 and level 6, you will be expected to demonstrate increasing ability in the areas of research, analysis, evaluation, mathematical and communication skills.

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	Module Type <sup>7</sup>
Level 4			
	Civil Engineering Technology A	20	M
	Foundation Mathematics	20	M
	Engineering and Sustainable Development	20	M
	Engineering Materials	20	M
	Engineering Concepts	20	M
	Engineering Surveying	20	M

<sup>7</sup> Modules are designated as either mandatory (M), requisite (R) or optional (O). For definitions, see the [Framework and Regulations for Undergraduate Awards](#)

**DEFINITIVE COURSE RECORD**

Level 5			
	Engineering Mathematics	20	M
	Civil Engineering Technology B	20	M
	Soil Mechanics	20	M
	Structural Analysis & Design A	20	M
	Contractual and Procurement Procedures	20	M
	Engineering Research & Practice	20	M
Level 6			
	Structural Analysis & Design B	20	M
	Geotechnics & Hydraulics	20	M
	Materials Technology	20	M
	Contract Law & Administration	20	M
	Dissertation	40	M

**Awards**

On successful completion of the course, students will be awarded a BSc (Hons) Civil Engineering. Students who leave the course early may be eligible for a DipHE Civil Engineering on successful completion of 240 credits including all mandatory modules at levels 4 and 5, or a CertHE Civil Engineering on successful completion of 120 credits including all mandatory modules at level 4.

**Course Delivery**

The apprenticeship programme is delivered through Suffolk New College and in conjunction with the employer. All apprentices are required to have 20% Off-the-job training. This includes the academic components of your apprenticeship – see study hours below - and additional activity supported by your course team, assessors and employers but is not part of your job role.

**Study Hours**

You are required to carry out 200 hours of study for each of the 20 credit modules that you study and as you are studying 4 modules each year, this equates to a requirement that you undertake 800 ‘guided learning hours’ (GLH) per year. These will be broken down as follows:

During semesters

<b>Learning activity</b>	<b>Hours per week</b>
Taught lessons	6
Research, study and assignments	15
<b>Total</b>	<b>21</b>

Over the course of two semesters, at 12 weeks contact weeks per semester, this equates to around 504 hours per year. The remainder of the study hours will be addressed through daily workplace activity where students will be applying learning and will be further developing knowledge, skills and understanding to support their academic studies.

## **DEFINITIVE COURSE RECORD**

Apprentices must be allocated one day per week throughout the year for their off-the-job training. During semester periods, this will be attendance at college for one day per week. Outside of the semester period this will involve the following:

- Meetings with your workplace mentor
- Reading technical/professional literature
- CDP planning
- CPD events
- CPD recording
- In-house company training
- E-portfolio building
- Professional practice record keeping
- Work place projects that link to the apprenticeship programme

These activities will be agreed and scheduled in conjunction with your employer and your assessor and form part of your learning plan. It is essential that you record all elements of your off-the-job training, and your assessor will be able to show you how to do this in the on-line platform.

### **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 65% coursework (including essays, reports, presentations, group work, practical work write-ups and research projects) and 35% examinations. Some modules are 100% examination based.

### **End Point Assessment**

All students on the course undertake an End Point Assessment (EPA) to complete their Civil Engineer Apprenticeship. Students will be expected to undertake the EPA as part of their Apprenticeship. The EPA will be delivered by a separate training provider. The EPA comprises of a 4500-5000 written report in preparation for a formal structured interview; two-page CV; CPD Records for at least 3 years and a Development Action Plan; and a two-hour written examination set by your EPA Assessors.

The aim of the end-point assessment (EPA) is for you to successfully apply for registration as an Incorporated Engineer (IEng) with the Engineering Council through a relevant professional engineering institution such as one of the following:

- The Institution of Civil Engineers
- The Institution of Structural Engineers
- The Chartered Institution of Highways and Transportation
- The institute of Highway Incorporated Engineers

### **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 BSc (Hons) Civil Engineering [degree apprenticeship] will not be charged tuition fees directly. Tuition fees will be agreed between the University/College and

**DEFINITIVE COURSE RECORD**

a student's employer. Students will be required to sign a commitment statement before starting their apprenticeship which will detail the student's, employer's, and University/College's expectations under the apprenticeship agreement.

Site visits are organised during the course and costs to students are usually limited to paying for transport. Students may spend up to £60 on books but this is not compulsory. No specialist equipment is required.

**Academic Framework and Regulations**

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