**University of Suffolk**

# DEFINITIVE COURSE RECORD

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|---|---|
| Course Title | **BSc (Hons) Civil Engineering [Degree Apprenticeship]** |
| Awarding Body | **University of Suffolk** |
| Level of Award[1] | **FHEQ Level 6** |
| Professional, Statutory and Regulatory Bodies Recognition | **Joint Board of Moderators (JBM)** |
| Credit Structure[2] | **360 Credits**<br>**Level 4: 120 Credits**<br>**Level 5: 120 Credits**<br>**Level 6: 120 Credits** |
| Mode of Attendance | **Part-time** |
| Standard Length of Course[3] | **5 years part-time** |
| Intended Award | **BSc (Hons) Civil Engineering** |
| Named Exit Awards | **DipHE Civil Engineering**<br>**CertHE Civil Engineering** |
| Entry Requirements[4] | • **112 UCAS tariff points from an appropriate Level 3 qualification or sufficient work experience and maturity to become a degree apprentice;**<br>• **Have already attained a minimum of level 2 English and Maths or be able to achieve this prior to taking the EPA;**<br>• **Maths at level 3 or demonstration of capability to study maths at level 4/5 through completion of a pre-course assessment;**<br><br>**Support of employer** |
| Delivering Institution(s) | **University of Suffolk at Suffolk New College** |
| UCAS Code | **Not applicable** |

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 2027-28 academic year[5].

## Course Summary

[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. Further information about mode of study and maximum registration periods can be found in the Framework and Regulations for Undergraduate Awards.

[4] Details of standard entry requirements can be found in the Admissions Policy and further details about Disclosure and Barring Checks (DBS) can be found on the University's DBS webpage.

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

## DEFINITIVE COURSE RECORD

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 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 behaviors 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 4/5/6 awards as set out by the UK Quality Assurance Agency (QAA)[6].

### Level 4

The emphasis is on application and evaluation of contrasting ideas, principles, theories and practises; greater specialism in the range of Civil Engineering activity; and an increasing independence in systematic enquiry and analysis.

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

You will develop your study Skills by taking more responsibility for your own learning through personal reading and research.

Upon successful completion of the level 4 modules, you will have gained the following in relation to Civil Engineering:

1. Underpinning science and mathematics;
2. A basic understanding of the fundamental scientific principles;
3. An awareness of developing technologies;
4. An introductory knowledge and understanding of mathematical and computer models, and an appreciation of their limitations;
5. An understanding of concepts from a range of interconnected disciplines;
6. Cognitive skills to enable you to process technical information and to be able to relate this to a broader context;
7. Develop skills relating to team working, communication, research, IT and academic study;
8. A basic understanding of health and safety, diversity, sustainability and environmental considerations.

**Level 5**
Upon successful completion of the FdSc (Level 5) programme of study, you will have developed your ability to:

1. Developing understanding of science and applied mathematical concepts;
2. Identify, analyse and solve a wide variety of theoretical and practical problems;
3. Plan and execute a research programme;
4. Critically use a wide variety of information sources;
5. Analyse project risks and evaluate alternative solutions to engineering problems;
6. Communicate your understanding clearly in a variety of ways in both academic and work contexts;
7. Enhance skills relating to team working, communication, research and academic study;
8. A developing understanding of health and safety, sustainability and environmental considerations.

**Level 6**
At Level 6 on the Civil Engineering Apprenticeship programme, you will be able to:

1. Demonstrate critical knowledge and understanding of the essential facts, concepts, theories and principles relating to a wide range of engineering situations;
2. Demonstrate knowledge and understanding of the relationship between the different aspects of the Civil Engineering profession, and interconnected disciplines;
3. Demonstrate a critical understanding of the health and safety, social, environmental, ethical, economic and commercial implications of the work of the Civil Engineer;
4. Apply appropriate quantitative scientific and engineering tools to the analysis of problems;
5. Demonstrate an ability to formulate creative, innovative, economically viable, secure, politically acceptable and sustainable solutions;
6. Analyse problems using appropriate combinations of theoretical understanding, research, computer software and laboratory experimentation;
7. Deepen and embed skills relating to team working, communication, research and academic study;

8. Recognise the importance of continual professional development and keeping abreast of the latest developments in the industry.

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

QAA Benchmarks:

- Engineering (2023)

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 of Mandatory modules, which are modules that you must take and pass in order to meet the requirements for your award. The only optional module is in Year 1 and Essential Mathematics is only required if you do not have an A Level Maths (Grade A-C) or equivalent completed in the last three years.

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 four years and then there are two modules in the 5th year (the Apprenticeship EPA Project) in the 5th 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.

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| | Module | Credits | Module Type[7] |
|---|---|---|---|
| Level 4 | | | |
| | Civil Engineering Technology | 20 | M |
| | Engineering Concepts | 20 | M |
| | Essential Mathematics | 0 | O |
| | Surveying and Setting Out | 20 | M |
| | Materials Technology A | 20 | M |
| | The Professional Engineer | 20 | M |
| | Engineering Mathematics | 20 | M |
| | Highways and Transportation | 20 | M |
| Level 5 | | | |
| | Soil Mechanics | 20 | M |
| | Hydraulics | 20 | M |
| | Structural Analysis and Design A | 20 | M |
| | Sustainable Design and Environmental Engineering | 20 | M |
| | Engineering Research and Practice | 20 | M |
| Level 6 | | | |
| | Materials Technology B | 20 | M |
| | Geotechnical Engineering | 20 | M |
| | Structural Analysis and Design B | 20 | M |
| | Managing Civil Engineering Projects | 20 | M |
| | Apprenticeship EPA Project | 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 attendance at college for 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**.** Off the job training must all be carried out during your contracted hours of employment.

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

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*

| Learning activity | Hours per week |
|---|---|
| Taught lessons | 7 |
| Research, study and assignments | 27 |
| Total | 34 |

Over the course of two semesters, at 12 weeks contact weeks per semester, this equates to around 816 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.

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. Activities can only be recorded as off the job training if they are undertaken during your contracted hours of employment.

**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.

**Special Features**
The BSc (Hons) Civil Engineering [degree apprenticeship] course meets the requirements of the Civil Engineer (degree) apprenticeship standards.

**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 the University //College. 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 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.