



Course Specification

This document provides a summary of the features and facts relating to the above qualification. It sets out the learning outcomes a student can expect to achieve through the completion of the programme along with a summary of teaching, learning and assessment methods. Further information can be found in the Course and Unit Handbooks.

1. General information

Course title	HND Engineering (General Engineering)
Awarding Institution/Body	Pearson Education Ltd.
Teaching Institution	Telford College
Work-based learning	All students are employed
Delivery modes	Full time
UCAS Code	N/A
Applicable subject benchmarks	QAA Subject Benchmark Statement Engineering 2016
FHEQ level	5

2. Purpose of the course

The purpose of BTEC Higher Nationals in Engineering is to develop students as professional, self-reflecting individuals who are able to meet the demands of employers in the rapidly evolving engineering sector and adapt to a constantly changing world. The qualifications also aim to widen access to higher education and enhance the career prospects of those who undertake them.

3. Objectives of the course

The objectives of the BTEC Higher Nationals in Engineering are as follows:

- To provide students with the core knowledge, skills and techniques that all engineers require, irrespective of future specialism, to achieve high performance in the engineering profession.
- To build a body of specialist knowledge, skills and techniques in order to be successful in a range of careers in engineering at the Associate Engineer or Operational Engineer level.
- To develop the skills necessary to fault find and problem solve in a timely, professional manner, reflecting on their work and contributing to the development of the process and environment they operate within.
- To understand the responsibilities of the engineer within society, and work with integrity, regard for cost, sustainability and the rapid rate of change experienced in world class engineering.

- To provide opportunities for students to enter, or progress in, employment within the engineering sector, or progress to higher education qualifications such as degrees and honours degree in engineering or a closely related area, by balancing employability skills with academic attainment.
- To provide opportunities for students to make progress towards achieving internationally recognised registration with a Professional Body regulated by the Engineering Council.

4. Aims of the course

The Level 5 Higher National Diploma in Engineering offers a progression route for learners who are employed in the mechanical, manufacturing or electrical engineering sector and is targeted at the needs of local engineering employers. This level 5 qualification seeks to address the regional skills gap by upskilling their existing workforce and helping to improve competitiveness. The course aims to develop the experience and skills of company staff, industry's most important asset. This course is highly regarded by the global engineering community and leads to a nationally recognised professional qualification. This course is aimed at students employed in the engineering industry wishing to improve their skills, knowledge and career prospects.

Students will gain a wide range of sector knowledge tied to practical skills gained in research, self-study, directed study and workplace activities.

Employability skills will be developed throughout the course in the following main categories:

- **Cognitive and problem-solving skills:** critical thinking, approaching non-routine problems by applying expert and creative solutions, use of systems and digital technology, generating and communicating ideas creatively.
- **Intra-personal skills:** self-management, adaptability and resilience, self-monitoring and self-development, self-analysis and reflection, planning and prioritising.
- **Interpersonal skills:** effective communication and articulation of information, working collaboratively, negotiating and influencing, self-presentation.

5. Teaching and learning

Pearson BTEC Higher National qualifications are designated higher education qualifications in the UK. They are aligned to the Framework for Higher Education Qualifications (FHEQ) in England, Wales and Northern Ireland, and Quality Assurance Agency (QAA) Subject Benchmark Statements. These qualifications are part of the UK Regulated Qualifications Framework (RQF). The BTEC Higher National Diploma (HND) is aligned with Level 5 of both frameworks. This means that the HND has the same level of demand and expectations as the first two years of a degree programme.

Teaching and learning is focused around the following underpinning themes:

- A strong emphasis on the development of students' ability to engage in critical thinking, academic articulation, problem solving and professional practice;
- A focus on providing students with a breadth of core skills and knowledge in both software and hardware, informed by strong communications with industry;
- On-going commitment to enhancing the student experience through formative and summative assessment and feedback, and personal support mechanisms;
- Use of flexible and appropriate learning methods and materials, to support a range of course access and individual diversity needs.

6. Programme structure and requirements, levels, module, credits and awards

Students must achieve a minimum of 120 credits. This is made up of eight units, each with a value of 15 credits. In some cases a maximum of 30 credits can be imported from another RQF Pearson BTEC Higher National qualification.

Unit number	Unit title	Unit level	Unit credit
19	Computer-aided design and Manufacture	5	15
35	Further Analytical Methods for Engineers	5	15
50	Condition Monitoring and Fault Diagnosis	5	15
61	Engineering Thermodynamics	5	15
69	Advanced Computer-Aided Design Techniques	4	15
71	Combinational and Sequential Logic	4	15

To achieve a Pearson BTEC Higher National Diploma qualification a student must have:

- completed units equivalent to 120 credits at Level 5;
- achieved at least a Pass in 105 credits at Level 5
- completed units equivalent to 120 credits at Level 4;
- achieved at least a Pass in 105 credits at Level 4

A student can still be awarded a HND if they have not achieved a minimum of a Pass in one of the 15 credit units at Level 4 and one of the 15 credit units at Level 5 but they have otherwise fulfilled all the above conditions.

The calculation of the overall qualification grade is based on the student's performance in all units to the value of 120 credits. Students are awarded a Pass, Merit or Distinction qualification grade using the points gained through all 120 credits at Level 5 based on unit achievement.

Points available per credit

Pass	Merit	Distinction
4	6	8

Qualification Grades

Points range	Grade	
420-599	Pass	P
600-839	Merit	M
840+	Distinction	D

7. Support for students and their learning

- Induction programme
- Student handbook, scheme specific HE handbook
- Unit Handbooks
- Library Resource Packs
- Moodle VLE
- HE Centre open access IT centre
- Tutor lead workshops, lectures and interactive learning methods and learning resources
- Drop-in centres
- Intensive short study sessions
- Academic tutorials
- Pastoral tutorials
- Special needs support and student services
- Teaching materials
- Employers Panel
- Peer Group Forum facility on Moodle

8. Entry requirements

Students must already hold a Higher National Certificate (HNC) qualification in Engineering. They must also be currently employed in the sector or have a relevant long term work placement.

Mature students who do not fulfil the entry requirements will be considered for this course on an individual basis and may be required to undertake some initial assessments.

9. Progression opportunities

The Pearson BTEC Higher National Diploma allows students to specialise by committing to specific career paths and progression routes to degree-level study.

On successful completion of the Pearson BTEC Higher National Diploma at Level 5, students can develop their careers in the engineering sector through:

- Entering employment
- Continuing existing employment
- Linking with the appropriate vendor accredited certificates
- Committing to Continuing Professional Development (CPD)
- Progressing to university.

The Level 5 Higher National Diploma is recognised by higher education providers as meeting admission requirements to many relevant engineering-related courses.

Potential job roles include;

- Engineering Maintenance Manager
- Production Manager
- Engineering Consultant

10. Methods for evaluating and improving the quality and standards

- Mid-module evaluations
- Module evaluations
- Annual Course Evaluation
- Academic Assessment Boards
- External Examination
- Staff Appraisal and Action Plans
- Peer review by staff
- HE Course Student Representative Meetings
- Course Team Meetings
- Academic and pastoral tutorials
- Assessment feedback from students
- Cross college surveys

11. Role of External Examiners

External Examiners will report on:

- Whether the standards set are appropriate with reference to external reference points, including subject benchmarks, framework for Higher Education Qualifications and other reference points
- Standards of student performance and draw comparisons of those standards with similar programmes
- The robustness of assessment procedures.