

Options@16 - Professional Engineers



Engineering covers many different jobs and is concerned with the production maintenance and installation of machines and materials. Many career opportunities are specific to different branches of engineering, whilst others are more general.

If you are in any doubt ask your Personal Adviser.

Main engineering sectors:

- Aeronautical
- Chemical
- Gas & electricity supply
- Measurement and control systems
- Oil and petroleum
- Refrigeration
- Biochemical
- Electrical and electronic engineering
- Marine engineering
- Mining and quarrying
- Production and manufacturing

For Civil Engineering see the handout entitled 'Construction Work (Professional-Technician)' in the Options at 16+ series.

For Motor Vehicle Engineering see the handout entitled 'The Motor Industry' in the Options at 16+ series.

Entry into engineering can be at three levels:

1. Craft and Operative

See the handout entitled 'Craft Engineering' in the Options at 16+ series.

2. Engineering Technician

These are jobs that involve greater responsibility, skill, supervision or management than craft level. Engineering technicians must have a national certificate/diploma (NVQ Level 3) plus suitable experience and industrial training. Some of the jobs that are done by engineering technicians are:

- Draughtsmen / women
- Laboratory technicians
- Production management / supervision
- Quality control
- Sales / marketing
- Estimation of costs
- Maintenance
- Production planning
- Research and development

3. Professional Engineers

This term includes both chartered engineer and incorporated engineer. Their work includes planning and running manufacturing and construction activities at the most responsible levels, and requires high levels of theoretical and practical knowledge of engineering principles and processes, often including management. The titles chartered and incorporated are not actually achieved until after training and work experience.

To work as a chartered engineer people need a four-year MEng, or three-year BEng (Hons) degree, plus further learning, known as a Matching Section. This is equivalent to another year's full time study, acquired either in a job or taken as an extra year at college.

In order to avoid any problems with professional registration, it is important to give careful consideration when choosing courses and to check whether the relevant engineering institution has accredited a course.

Examples of jobs include:

Aeronautical Engineering is all about making things that fly.

Aeronautical engineers apply science and technology to the research, design, manufacture and maintenance of aircraft, missiles, satellites and space vehicles.

Biochemical Engineers are concerned with chemical changes in living things. They apply their scientific knowledge to create safe and efficient processes in the production of pharmaceuticals and foodstuffs, and in the treatment of waste.

Chemical Engineers are concerned with the processes that cause changes in the chemical or physical make-up of substances. They use this knowledge to produce a wide range of everyday products, including plastics, fibres, dyes, drugs and medicines, paints, household cleaners and detergents.

Electronics/Electrical Engineers

Electronics engineers research, design and develop products that use electronics, for example, telecommunications systems, computers, lasers, satellite systems, radar and television.

Electrical engineers are involved in the generation, supply and use of electricity.

Gas Engineers are responsible for extracting and treating gas, and installing and maintaining the gas network from source to customer. Gas engineers have a wide variety of roles, although some specialise in the exploration, transmission, distribution or use of gas.

Manufacturing Systems Engineers design, develop and improve manufacturing systems, which convert raw materials into finished products. They work on the whole system, from design to finished product.

Maritime Engineers design, develop, operate and maintain the equipment and systems used on ships, offshore oil and gas installations and underwater vessels. They specialise in offshore engineering, marine engineering or shore-based industries.

Minerals/Mining Engineers apply the principles of science and engineering to extract and process natural resources from deposits close to the Earth's surface or deep underground. Resources include coal, iron, salt, gold and diamonds. Minerals/mining engineers look for methods that are economical, safe and environmentally friendly.

Production Managers organise workers and materials in the manufacturing industry. They make sure that production is as efficient as possible.

Refrigeration Engineers design and install refrigeration and air conditioning systems. They are responsible for creating and maintaining a comfortable, energy-efficient and safe environment inside buildings, and ensuring that chilled or frozen produce is kept at the correct temperature.

Additional Information

What will the job be like?

This varies according to the engineering discipline you enter. Technicians, particularly those at a junior level, often work near their craft colleagues. This may mean being on a shop floor and near machinery. Alternatively, those engaged in research and development may work in laboratories or offices. Professional engineers must expect to move around between sites or visit potential clients in different parts of the country.

Skills checklist

- A knowledge of health and safety issues.
- An analytical, logical approach to solving problems, combined with creativity and imagination.
- An excellent grasp of modern technology, including the ability to use computers.
- An understanding of electrical health and safety regulations.
- An understanding of engineering licence regulations.
- Good communication skills for writing technical reports and liaising with other staff and customers.
- Good English and technical skills to write reports.
- Knowledge of issues such as waste management and climate change.
- Management skills, including the ability to lead and motivate others.
- Organisational skills to plan your own time, to co-ordinate resources and ensure deadlines are met.
- Strong communication and interpersonal skills to interact with engineers and scientists from other disciplines.
- The ability to encourage other people's ideas.
- The ability to pay close attention to detail.
- To be flexible and able to compromise.
- To be good at maths.
- To be willing to keep up to date with advances in technology in this fast-changing field.
- To enjoy solving problems as well as applying logic and creativity to think of new ways to solve problems.
- To have technical ability and good computer skills.
- To read and interpret engineering diagrams.
- To remain calm under pressure, as you often work to deadlines.
- To work well on your own and as part of a team.
- To work within budgets.

Related occupations

- Construction
- Motor vehicle engineering

How much will I get paid and what are the opportunities?

Aeronautical Engineering

Aeronautical engineers earn in the range of £23,000 - £28,500 a year, rising to £36,500 - £43,000. Higher earners can make around £50,000 a year.

Higher salaries are available depending on employer, role and responsibilities.

Most aeronautical engineers work around 35-40 hours, Monday to Friday. However, you may need to start early, finish late or do some weekend work, especially as deadlines approach.

Employers are aircraft manufacturers, defence companies, component manufacturers, airlines, the armed forces and the Ministry of Defence.

Some aeronautical engineers apply their knowledge of aerodynamics in other areas, for example, in companies that make vehicles such as cars, trains and hovercraft.

You can also work in the communications industry, dealing with satellites, or in construction, dealing with high, wind blown structures.

Some aeronautical engineers work as freelance consultants.

Biochemical Engineers

Biochemical engineers earn in the range of £25,000 - £31,000 a year, rising to around £43,000 - £50,000. Higher earners can make around £56,500 a year.

Higher salaries are available depending on employer, role and responsibilities.

Most biochemical engineers work around 35-40 hours a week, Monday to Friday. However, early starts, late finishes and some weekend work may be required, especially as deadlines approach.

Employers are pharmaceutical companies that use biochemical techniques to make medicines. There are also opportunities with food and drink manufacturers and with companies that deal with waste disposal. Some may work in government, for example, the Department for Environment, Food and Rural Affairs.

Chemical Engineers

Chemical engineers earn in the range of £25,000 - £31,000 a year, rising to around £43,000 - £50,000. Higher earners can make around £58,000 a year.

Chemical engineers work around 35-40 hours a week, Monday to Friday. However, early starts, late finishes and some weekend work may be required, especially as deadlines approach.

Higher salaries are available depending on industrial sector, employer, role and responsibilities.

Chemical engineers work in every industry in which materials undergo chemical or physical change, from paints, polymers and petroleum to beer and breakfast cereals.

Many chemical engineers work in the chemical and allied products field. They also work in the oil industry, pharmaceuticals and toiletries, process plants and related equipment,

energy and nuclear fuels, materials industries (plastics, metals and ceramics, etc), the water industry, and food and drink manufacture.

Engineering contracting companies that design and construct production plant also offer a substantial (and increasing) number of openings for chemical engineers.

Electronics/Electrical Engineer

Electronics/electrical engineers earn in the range of £23,000 - £30,000 a year, rising to £37,000 - £46,000. Higher earners can make around £55,000 a year.

Higher salaries are available depending on employer, role and responsibilities.

Most electronics/electrical engineers work around 35-40 hours, Monday to Friday. However, early starts, late finishes and some weekend work may be required.

Electronics/electrical engineers work in a variety of industries, including engineering manufacturing, electricity generation and distribution, communications, transportation, chemical, water, and marine and offshore industries.

There are also opportunities within the public sector, the armed forces and computer manufacturers.

Some electronics/electrical engineers work as independent consultants.

Gas Engineers

Gas engineers earn in the range of £21,500 - £26,000 a year, rising to £32,000 - £42,000. Higher earners can make around £50,000 a year.

Higher salaries are available depending on employer, role and responsibilities.

Gas engineers usually work around 35-40 hours a week, Monday to Friday. However, early starts, late finishes, standby rotas and some weekend work may be required.

Engineers who work in gas extraction may spend up to two weeks at a time on board an offshore gas terminal.

Employers include National Grid, Advantica Technologies, contracting companies, gas appliance manufacturers and firms in the chemical and petroleum industries.

Manufacturing Systems Engineers

Manufacturing systems engineers earn in the range of £23,000 - £26,500 a year, rising to £33,000 - £39,500. Higher earners can make around £50,000 a year. Higher salaries are available depending on employer, role and responsibilities.

Most manufacturing systems engineers work around 35-40 hours a week, Monday to Friday. However, early starts, late finishes and weekend work may be required.

Employers are firms across a wide range of manufacturing industries, in engineering, electronics, information technology, food, pharmaceuticals and textiles.

Maritime Engineers

Maritime engineers earn in the range of £23,000 - £28,500 a year, rising to £34,500 - £43,000. Higher earners can make around £50,000 a year.

Most maritime engineers work around 35-40 hours a week, Monday to Friday. However, early starts, late finishes and some weekend work may be required. Initial employment is usually with:

- companies concerned with the design, construction and maintenance of ships and their equipment
- offshore industries.
- shipping companies
- the Merchant Navy and Royal Navy

Minerals/Mining Engineers

Minerals/mining engineers earn in the range of £21,500 - £26,000 a year, rising to £32,000 - £42,000. Higher earners can make around £50,000 a year. Higher salaries are available depending on employer, role and responsibilities.

Minerals/mining engineers usually work around 35-40 hours a week, Monday to Friday. However, early starts, late finishes and some weekend work may be required.

Minerals/mining engineers work for mining companies and in related areas such as underground civil engineering (particularly tunnelling), quarrying, minerals processing, petroleum and production engineering.

Many engineers work in other countries. For example, South Africa and Australia have large mining industries, especially for gold and diamonds.

Production Managers

Production managers earn in the range of £21,000 - £28,000 a year, rising to £37,000 - £45,000. Higher earners can make around £51,000 a year, and higher salaries are possible.

Production managers usually work a 39-hour week, which may include shift work and work at weekends.

Employers throughout the UK are manufacturers across a wide range of industries.

Refrigeration Engineers

These figures are only a guide, as actual rates of pay may vary, depending on the employer and where people live. Starting salaries may range from around £14,000 to £18,000 a year. Average salaries may be between £20,000 and £30,000 a year. The highest earnings for a refrigeration engineer can be up to £50,000 a year.

There are 11,000 heating, ventilating, air conditioning and refrigeration businesses in the UK and over 95,000 people employed in the sector. Good openings exist for refrigeration engineers with specialist building services and engineering firms who work for large construction companies and local authority departments.

Smaller firms may specialise in planning and installing simple domestic refrigeration and air conditioning systems or in working on major projects in hospitals, schools, theatres, pubs and clubs.

There is a shortage of engineers in the building services industry as a whole, and there are opportunities for refrigeration engineers in all areas of the UK. Air conditioning is a growing area of work, both in the UK and abroad.

Apprenticeships/National Vocational Qualifications/Work based Learning.

Apprenticeships/Advanced Apprenticeships – Employer Led

Some employers will employ young people on an apprenticeship programme, however this is a competitive area. Apprenticeships (NVQ Level 2) are the starting point for most young people. Achievement of Level 2 enables progression to Advanced Apprenticeships (Level 3). Apprenticeships are 'Employer Led' and therefore the trainee is employed and will be paid a wage. Apprenticeships last between 2-3 years depending on the person's progress.

Apprenticeships – Programme Led

Sometimes 'Employer Led' apprenticeships are not immediately available therefore it may be possible to start training in an off-the-job setting where the person will undertake job skills and training prior to moving onto employment and an Employer Led Apprenticeship.

For further information about Work Based Learning ask your Personal Adviser for details of vacancies and how to apply.

Full Time Education

These are available at some schools and all colleges. For the engineering profession, Mathematics and Physics are often the preferred subjects. To study at Advanced level you will need to achieve at least 4/5 GCSEs at grades A-C.

Consult a personal adviser if in doubt as there are many different courses and careers available.

For degree entry, two 'A' levels (or their equivalent) are the minimum requirement but three are often preferred. Many degrees and HNDs in engineering subjects are "sandwich" courses, which involve placements with employers, some of which may be abroad, particularly in the European Union. Therefore, it can be an advantage to be skillful in a foreign language.

Vocational qualifications can also be used to progress onto higher education. In the case of BTEC National Diploma courses it may be desirable to take additional units or an 'A' level to meet entry requirements at some universities.

Working in Professional Engineer - Course Information

Course	Where?	How Long?	Entry Requirements
BTEC First Diploma in Engineering	East Riding College: Beverley	1 year	4 GCSEs at grades D to G or above, including Science, Mathematics and a subject testing the use of English.
BTEC National Diploma in Engineering	East Riding College: Beverley	2 years	GCSE's at grade C and above in English, Mathematics and a Science subject
Level 1 - Performing Engineering Operations (PEO) Electrical/Electronic Engineering	Grimsby Institute	1 year	There are no formal entry requirements. However, applicants will need to attend an interview before being accepted on to the course. The applicant needs to attend the course with overalls and a pair of steel toe-cap work boots.
Level 2 - Performing Engineering Operations Electronics/Instrumentation	Grimsby Institute	1 year full-time or 2 years part-time (day release)	Successful completion of the Level 1 Performing Engineering Operations Electrical/Electronic Engineering or a minimum of three GCSEs at grade D or above, including Maths, English and Science.
Level 3 - Edexcel National Award/ Diploma in Electrical Electronic Engineering	Grimsby Institute	2 years	A minimum of four GCSEs at grade C or above, including Maths and English, and Science at higher level paper is desirable.
First Diploma - Electrical and Electronic Engineering	Grimsby Institute	1 year	There are no formal entry requirements, however acceptance is subject to tutor evaluation.
Level 1 - Performing Engineering Operations (PEO) Electrical Installations	Grimsby Institute	1 year	No formal qualifications are required, although GCSE grade A- D in Maths and English are desirable. Applicants must have a full colour vision certificate from an Optician.

Course	Where?	How Long?	Entry Requirements
Level 2 - Performing Engineering Operations (PEO) Electrical Installations	Grimsby Institute	1 year	Applicants must achieve Performing Engineering Operations Level 1 in Electrical Installation to gain entry. Applicants must have full colour vision and will be required to sit a test to ensure this is the case. The applicant needs to attend the course with overalls and British Standard Safety footwear, a file for notes, note paper, writing materials and a calculator.
Level 2 - Certificate in Engineering and Technology Mechanical (EMTA)	Grimsby Institute	1 Year Day Release/ Full time	GCSE grade D in Maths & Science, with a maths and reasoning test to sit during the interview process.
Level 1 - NVQ Performing Engineering Operations Mechanical Engineering	Grimsby Institute	1 year full time / part time day release	No formal entry requirements, but a good basic knowledge in literacy, numeracy and ICT is required. However students without necessary grades will study performing engineering operations Level 1 only.
Level 2 - NVQ Performing Engineering Operations Mechanical Engineering	Grimsby Institute	1 year - full time. 2 years - part time, day release.	Performing Engineering Operations Level 1 or GCSE grade D in Maths, Science or English. Other requirements include overalls and a pair of stout protective footwear.
Level 3 - National Award Mechanical Engineering	Grimsby Institute	1 year	4 GCSE at grade A-C where Maths and Science at higher level paper is desirable and an introductory test.
Level 1 - Certificate in Engineering and Technology (Mechanical)	Grimsby Institute	1 year	No formal qualifications, but a good basic knowledge in Literacy, Numeracy and ICT is required.
Level 3 - National Diploma Mechanical Engineering	Grimsby Institute	2 years	National Award Mechanical Engineering
Level 3 - EAL Diploma in Engineering and Technology (Mechanical)	Grimsby Institute	1 year	GCSE grade C in Maths and Science or from successful completion of a Technical Certificate Level 2.

Course	Where?	How Long?	Entry Requirements
Level 2 - Technical Certificate in Refrigeration & Air Conditioning	Grimsby Institute	This course is available as Full Time or Day Release.	GCSE Grade A-C in Mathematics, English and Science for the fast track option (over one year). Otherwise no formal entry requirements for the two year option. Other requirements: <ul style="list-style-type: none"> - Steel toe capped boots - Overalls - Calculator - Writing equipment
Level 2 - NVQ Performing Engineering Operations - Refrigeration	Grimsby Institute	1 year	GCSE Grade A- C in Maths, Science and English.
Level 1 Certificate in Engineering (2800)	Hull College	1 year	No specific prior qualifications, learning or experience are required for candidates undertaking the qualifications. It is expected that candidates should have sufficient levels of Numeracy and Literacy to be able to satisfactorily complete the course of study. A satisfactory reference may also be required.
EDEXCEL / BTEC First Diploma in Engineering (Level 2)	Hull College	1 year	To be accepted on the course you must have previously gained one of the following: Four GCSEs, which must include Maths and Science and English at grades D or E; City & Guilds 2800 Level 1. A satisfactory reference may also be required.
NVQ 2 Performing Engineering Operations (Mechanical Route)	Hull College	1 year	4 GCSEs (grade D or above) including Maths and Modular Science or Physics, or NVQ level 1. The course is ideally suited to those wishing to pursue an apprenticeship at craft or technician level. All places may be subject to internal assessment at the start of the programme. The course is suitable for male and female learners with an interest in engineering. A satisfactory reference may also be required.

Course	Where?	How Long?	Entry Requirements
EDEXCEL (BTEC) National Engineering Level 3 Award/Diploma	Hull College	36 weeks	To be accepted on the course, you must have previously gained one of the following: A minimum of 4 GCSEs at grade C or above which should include Mathematics and Science. A vocationally related level 2 qualification will be considered. Acceptance on the course may also be subject to initial tests and a satisfactory reference.
NVQ 1 Performing Engineering Operations (Electrical Route)	Hull College	12 weeks	There are no formal entry requirements but you will need to have an interest in learning practical skills within an electrical workshop environment. All places may be subject to internal assessment at the start of the programme. All candidates must supply evidence that they have undertaken a colour blindness test and that they are absent of colour deficiency. The Ishihara colour test can be arranged with any optician. A satisfactory reference may also be required.
NVQ 2 Performing Engineering Operations (Electrical Route)	Hull College	22 weeks	You will need to be at least 16 years of age and interested in a career in engineering or manufacturing. The course is ideally suited to those wishing to pursue an Apprenticeship at craft or technician level. Learners will need to have achieved an NVQ Level 1 in Performing Engineering Operations. All candidates must supply evidence that they have undertaken a colour blindness test and that they are absent of colour deficiency. The Ishihara colour test can be arranged with any optician. A satisfactory reference may also be required.

Course	Where?	How Long?	Entry Requirements
City & Guilds 2330 Electro technical Certificate	Hull College	2 years	4 GCSEs at grade C or above, including Maths, English and Science. College aptitude test and interview. All places may be subject to internal assessment at the start of the programme. All candidates must supply evidence that they have undertaken a colour blindness test and that they are absent of colour deficiency. The Ishihara colour test may be arranged with any optician. A satisfactory reference may also be required.
BTEC National Diploma Operations & Maintenance Engineering	North Lindsey College	2 years	Applicants should normally have four GCSE Grades A* to C in Maths, Science and English, or a BTEC First Diploma in Engineering. Applications are however welcome from mature learners who do not possess these entry requirements, subject to a satisfactory interview.
NLC Apprenticeship Scheme - Electrical	North Lindsey College	1 year	Applicants must have GCSEs in Maths, English and Science at Grade C or higher. All applicants will undergo a rigorous selection procedure, including written assessments.
NVQ 2 Performing Engineering Operations Electrical/Electronic/Control Maintenance	North Lindsey College	1 year	Applicants should have three GCSE's at grade C or above (including Maths and Science).
Pre-Apprenticeship Electrical Installation Level 1	North Lindsey College	1 year	Applicants should have, or expect to gain, a minimum of three GCSEs at Grade D or above to include Maths and Science. However, with three GCSE's at Grade C or higher you could start on the Pre-Apprenticeship in Electrical Installation Level 2.

Course	Where?	How Long?	Entry Requirements
Pre-Apprenticeship Electrical Installation Level 2	North Lindsey College	1 year	Applicants will need 3 GCSEs at Grade C or above (including Maths and Science) to start directly on this course. However, with at least 3 GCSEs at Grade D applicants would start on the Pre-Apprenticeship at Level 1 and then progress onto this course.
Pre-Apprenticeship Electrical Maintenance Level 1 & 2	North Lindsey College	1 year	Applicants should have, or expect to gain, a minimum of 3 GCSEs at Grade D or above to include Maths and Science. With 3 GCSEs at Grade C or better you could start on the Pre-Apprenticeship Level 2 Electrical Maintenance course.
Pre-Apprenticeship Mechanical Maintenance & Machining Level 1 & Level 2	North Lindsey College	1 year	Applicants should have, or expect to gain, a minimum of 3 GCSEs (incl. Maths and Science) at Grade D or above. With 3 GCSEs at Grade C or better you could start on the Pre-Apprenticeship Level 2 Mechanical Maintenance course.
Advanced Apprenticeship in Engineering	York College	This is a very demanding programme that usually takes four years to complete.	To start the programme, you must be employed with an engineering company that can cover the range of work needed for the NVQ. Each company has its own entry requirements that you will have to fulfil when you apply for a job; most publish their criteria on their websites. The college may need to speak to your employer to ensure that the range and nature of their work will give you enough experience to complete the NVQ.

Course	Where?	How Long?	Entry Requirements
Advanced Apprenticeship in Rail Transport Engineering	York College	This is a very demanding programme that usually takes four years to complete.	We recommend that applicants should have a minimum grade C GCSE in Mathematics, English and a Science subject. To start the programme you must be employed with a rail engineering company who can cover the range of work needed for the NVQ. The college may need to speak to your employer to ensure that the range and nature of their work will give you enough experience to complete the NVQ.
Advanced Diploma in Engineering	York College	2 years	It is a bonus to have studied a related qualification, such as GCSE Engineering, Manufacturing or Resistant Materials or the Young Apprenticeship in Engineering, but it is not essential. However you will need 5 A*-C GCSEs including Maths (Higher) and Science – ideally with a grade B in Mathematics on the Higher Paper. We are looking for young people who have a real interest and aptitude for engineering.
National Certificate in Electrical-Electronic Engineering	York College	2 years, attending college for one day each week. It is expected that students will spend some time each week consolidating their learning at home/work.	Please note that this qualification is aimed at those working in the Electrical and/or Electronic industries in a technical capacity. There are no formal entry requirements and relevant experience will be taken into account, but you should have mathematical skills at least equivalent to GCSE grade C

Course	Where?	How Long?	Entry Requirements
National Diploma in Electrical-Electronic Engineering	York College	1 year	You require 5 GCSEs grade A* to C and these must include Maths (ideally at grade B) and Science at grade C or above, though consideration would be given to learners with industrial experience and a willingness to learn and be successful.
Electrotechnical Level 2	York College	Check with college	Candidates should ideally have GCSE grade C or equivalent in Mathematics and Science, and must successfully complete a short aptitude assessment followed by an interview.
First Diploma in Engineering	York College	1 year	You require a minimum of 4 GCSEs at grade D or above; which include Maths, Science and Design Technology.
National Diploma in Engineering Manufacturing & Electrical	York College	1 year	GCSEs must include Mathematics and a Science based subject.
Performing Engineering Operations	York College	1 year	This course is offered on a full-time basis and also as part of a Foundation Apprenticeship for Work Based Learners. Full-time applicants should have a minimum of 3 GCSEs at Grade D or equivalent.
Work Based Engineering NVQ (Level 3)	Yorkshire Coast College	2 years	It is expected that candidates will have NVQ Level 2 or equivalent in order to be able to complete the course of study satisfactorily. Typical learners will have 3 GCSE grades A* to C including Maths and English. Alternatively, if you have other qualities that would make you an ideal learner, these can be discussed at an interview with a member of our dedicated teaching staff.

Course	Where?	How Long?	Entry Requirements
Work Based Engineering NVQ (Level 2)	Yorkshire Coast College	1 year	It is expected that candidates will have NVQ Level 1 or equivalent in order to be able to complete the course of study satisfactorily. Typical learners will have 3 GCSE grades A* to C including Maths and English. Alternatively, if you have other qualities that would make you an ideal learner, these can be discussed at an interview with a member of our dedicated teaching staff.
Work Based Engineering NVQ (Level 1)	Yorkshire Coast College	1 year, depending on experience	This course is designed for candidates new to the engineering industry. All learners will need to be employed within an Engineering organisation and have a desire to achieve formal qualifications as part of their employment.
Work Based Apprenticeship in Engineering	Yorkshire Coast College	1 year	Ideal learners will have a commitment to developing a range of engineering skills and the desire to acquire new qualifications. Typical learners will have 3 GCSE grades A* to C including Maths and English. Alternatively, if you have other qualities that would make you an ideal learner, these can be discussed at an interview with a member of our dedicated teaching staff.
City & Guilds 3267 Introductory Welding	Yorkshire Coast College	34 weeks	For those who wish to improve their welding skills and gain a welding qualification. This course will also help those that have no welding skills and get them on the first rung of the ladder for a welding qualification. Check with college.

Course	Where?	How Long?	Entry Requirements
Full Time Engineering Technology (Level 1)	Yorkshire Coast College	36 weeks, starting in September and running until July	You will need a positive attitude toward learning and an interest in the subject area. 3 GCSE grades in the D-E range including Maths and English. You will have an interview with college staff to make sure that this is the right course for you.
Full Time Engineering Technology (Level 3)	Yorkshire Coast College	2 years	It is expected that candidates will have Engineering Technology Level 2 or equivalent in order to be able to complete the course of study satisfactorily. Typical learners will have GCSE grades A* to C in Maths and English. Alternatively, if you have other qualities that would make you an ideal learner, these can be discussed at an interview with a member of our dedicated teaching staff.
Work Based Advanced Apprenticeship in Engineering	Yorkshire Coast College	2 years, day release	It is expected that candidates will have completed a Level 2 Engineering Apprenticeship or equivalent in order to be able to complete the course of study satisfactorily. Typical learners will have 3 GCSE grades A* to C including Maths and English. Alternatively, if you have other qualities that would make you an ideal learner, these can be discussed at an interview with a member of our dedicated teaching staff. All learners will need to be employed within an Engineering organisation and have a desire to achieve formal qualifications as part of their employment.

Course	Where?	How Long?	Entry Requirements
Full Time Engineering Technology (Level 2)	Yorkshire Coast College	1 year	It is expected that candidates will have Engineering Technology Level 1 or equivalent in order to be able to complete the course of study satisfactorily. Typical learners will have 3 GCSE grades A* to C including Maths and English. Alternatively, if you have other qualities that would make you an ideal learner, these can be discussed at an interview with a member of our dedicated teaching staff
Certificate in Electro-technical Technology (Level 3)	Yorkshire Coast College	18 Months (Part time)	A Level 2 certificate in Electro-technical Technology or any level 4 qualification. All applicants will have an interview with a teacher.
Certificate in Electro-technical Technology (Level 2)	Yorkshire Coast College	18 Months (Part time)	GCSE Maths and Science at Grade C or above and GCSE English at grade C or above. All applicants will have an interview with a teacher.
Work-Based Apprenticeship Electro-technical Technology	Yorkshire Coast College	42 months	GCSE Maths, Science and English at Grade C or above. All applicants will have an interview with a teacher.
Electro-technical Technology (Level 2) C&G 2330	Yorkshire Coast College	1 year	GCSE Maths and Science at Grade C or above and GCSE English at grade C or above. All applicants will have an interview with a teacher.
Electro-technical Technology (Level 3) C&G 2330	Yorkshire Coast College	1 year	A level 2 certificate in Electro-technical Technology or any relevant level 4 qualification. All applicants will have an interview with a teacher.

For information on any of the above courses and to make an online application go to either:

East Riding & Hull Prospectus:

www.logonmoveon.co.uk

North Lincolnshire and North East Lincolnshire Prospectus:

www.lincs2.co.uk

Please check with Colleges directly as course details and entry requirements may change. Before making any final decision or if you need help to understand this leaflet, discuss all the options with your Personal Adviser.

Useful Addresses

Institution of Chemical Engineers


Davis Building
Railway Terrace
Rugby
CV21 3HQ

 01788 578 214

 www.icheme.org.uk

Institution of Mechanical Engineers

1 Birdcage Walk
Westminster
London
SW1H 9JJ

 020 7222 7899

 www.imeche.org

The Institution of Engineering and Technology

Michael Faraday House
Stevenage
Herts
SG1 2AY


 01438 313 311

 www.theiet.org

The Institute of Quarrying

7 Regent Street
Nottingham
NG1 5BS


 0115 945 3880

 www.quarrying.org

WISE (Women Into Science, Engineering and Construction)

2nd floor Weston House
246 High Holborn
London
WC1V 7EX

 020 3206 0408

 www.wisecampaign.org.uk

The Institute of Materials, Minerals and Mining

1 Carlton House Terrace
London
SW1Y 5DB

 020 7451 7300

 www.iom3.org

Institute of Refrigeration

Kelvin House
76 Mill Lane
Carshalton
Surrey
SM5 2JR

 020 8647 7033

 www.ior.org.uk

The Institute of Marine Engineering, Science and Technology (IMarEST)

80 Coleman Street
London
EC2R 5BJ

 020 7382 2600

 www.imarest.org

SEMTA (*The Sector Skills Science Council for, Engineering and Manufacturing Technologies*)

14 Upton Road
Watford
Hertfordshire
WD18 0JT

 01923 238 441

 www.semta.org.uk

Useful websites:

Available as free downloads at www.connexions-direct.com

For further information look in your Connexions library under classifications

Engineering



Connexions Centre Addresses

Beverley Connexions Centre

3 North Bar Within
Beverley
HU17 8AP

 01482 862741

Bransholme Connexions Centre

76 Goodhart Road
North Point Shopping Centre
Bransholme
Hull
HU7 4EF

 01482 835780

Bridlington Connexions Centre

20 Blenheim Road
Bridlington
Y016 4LD

 01262 678943

Goole Connexions Centre

71-73 Boothferry Road
Goole
DN14 6BB

 01405 608810

Grimsby Connexions Centre

Queen Street
Grimsby
DN31 1JA


 01472 355303

Hessle Connexions Centre

1st Floor
Library Building
Southgate
Hessle
HU13 0SN

 01482 647127

Holderness Connexions Centre

To make an appointment to be seen in Hedon, Hornsea or Withernsea please call Beverley Connexions on  01482 862741 or your local Customer Service Centre.

Hull Connexions Centre

84-86 Paragon Street
Hull
HU1 3QA

 01482 223081

Pocklington Connexions Centre

Pocklington Youth Centre
25 New Street
Pocklington
YO42 2QA

 07824 486538

Scunthorpe Connexions Centre

60 Oswald Road
Scunthorpe
DN15 7PQ

 01724 282200

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