

Engineering

Dunstable College has a strong reputation for engineering, having been a provider for over 40 years with various excellent links to the local community. The skills-based teaching incorporates the latest computer-aided engineering innovations within our new workshops based at the Kingsland Skills and Enterprise Centre in Houghton Regis.



21101 07 City and Guilds 2251 (Performing Engineering Operations) NVQ in Engineering

Level 1

This course is suitable for those who wish to pursue a career in Engineering and gain a recognised qualification. It provides essential job knowledge and understanding and leads on to further study.

Course Duration

One year

It is also available as a day release course over two years.

Course Content

The course consists of Core Vocational Units from a National programme in the fields of Electrical, Mechanical, Engineering and Welding, supported by appropriate qualification in numeracy and literacy.

Students will study the following:

- Working Safely in an Engineering Environment
- Developing Yourself and Working with Other People on Engineering Activities.

Students will have the opportunity to choose two or more of the following options:

- Wiring and Testing Electrical Circuits
- Machining Engineering Materials
- Use of Hand Tools to make Engineering Components
- Welding and Joining of Metals.

Students must take responsibility for managing their own progress and compiling a portfolio of evidence demonstrating skill attainment. Students have access to well-equipped engineering workshops, computer and laboratory facilities for private study. There are external visits to local industry and technical establishments.

Key Skills

All students aged 16-18 are required to complete the three Key Skills Units in Communication, Application of Number and Information Technology

Qualifications/experience needed to join the course

No formal qualifications are required. All applicants will be invited to attend an interview.

Study Centre

Main site, Kingsway, Dunstable.

After the course is finished

Students can progress to NVQ Level 2 in Mechanical, Electrical, Engineering or Welding, gain employment in the engineering industry, or obtain a placement on an Apprenticeship scheme.

21102 07 City and Guilds 2251 NVQ Mechanical/Production Engineering

Level 2

This highly practical course will develop your engineering skills further, preparing you either for work in the engineering sector or for further study.

Course Duration

One year

It is also available as a day release course over two years.

Course Content

The course consists of Core and Optional Units of the National Vocational programmes in the field of Mechanical/Production Engineering and a supporting City and Guilds qualification.

Students will study the following:

- Working Safely in an Engineering Environment
- Developing Yourself and Working with Other People on Engineering Activities
- Using and Communicating Technical Information
- Identifying and Selecting Engineering Materials.

Students will have the opportunity to choose two or more options from the following:

- Marking Out for Engineering Activities
- Machining Engineering Materials
- CAD
- CNC
- Using Software in Engineering.

Students must take responsibility for managing their own progress and compiling a portfolio of evidence demonstrating skill attainment. Students have access to well-equipped engineering workshops, computer and laboratory facilities for private study. There are external visits to local industry and technical establishments.

Key Skills

All students aged 16-18 are required to complete the three Key Skills Units in Communication, Application of Number and Information Technology

Qualifications/experience needed to join the course

4 GCSE passes or equivalent qualifications or industrial experience. You should enjoy practical tasks whilst having an aptitude and enthusiasm for engineering and technology. All applicants will be invited to attend an interview.

Study Centre

Main site, Kingsway, Dunstable.

After the course is finished

Students can gain employment in the engineering industry, go on to an Apprenticeship Scheme or further full-time study on a technician course.



21103 07 City and Guilds 2251 (Performing Engineering Operations) NVQ Electrical/Electronic Engineering

Level 2

This course is suitable for those seeking a career in Electrical/Electronic Engineering. It provides essential job knowledge and understanding.

Course Duration

One year

It is also available as a day release course over two years.

Course Content

The course consists of Core and Optional Units of the National Vocational Programmes in the field of Electrical/Electronic Engineering and a supporting appropriate City and Guilds qualification.

Students will study the following:

- Working Safely in an Engineering Environment
- Developing Yourself and Working with Other People on Engineering Activities
- Using and Communicating Technical Information

- Identifying and Selecting Engineering Materials.

You will also choose two or more further options such as:

- Wiring and Testing Electrical Circuits
- Building and Testing Electronic Circuits
- CAD
- Using Software in Engineering.

Students must take responsibility for managing their own progress and compiling a portfolio of evidence demonstrating skill attainment. Students have access to well-equipped engineering workshops, computer and laboratory facilities for private study. There are external visits to local industry and technical establishments.

Key Skills

All students aged 16-18 are required to complete the three Key Skills Units in Communication, Application of Number and Information Technology.

Qualifications/experience needed to join the course

4 GCSE passes or equivalent qualifications or industrial experience. You should enjoy practical tasks while having an aptitude and enthusiasm for engineering and technology. All applicants will be invited to attend an interview.

Study Centre

Main site, Kingsway, Dunstable.

After the course is finished

Students can gain employment in the engineering industry, go on to an Apprenticeship scheme or further full-time study on a technician course.

21104 07 City and Guilds 2251 NVQ Engineering Maintenance

Level 2

This course is suitable for those seeking a career in Engineering Maintenance. It provides essential job knowledge and understanding.

Course Duration

One year

Course Content

The course consists of Core and Optional Units of the National Vocational Programmes in the field of Electrical/Electronic and Mechanical Engineering Maintenance and a supporting appropriate City and Guilds qualification.

Students will study the following:

- Working Safely in an Engineering Environment
- Developing Yourself and Working with Other People on Engineering Activities
- Using and Communicating Technical Information
- Erecting and Dismantling Access Structure
- Maintaining Mechanical Devices and Systems

- Maintaining Electrical Equipment and Systems
- Maintaining Electronic Equipment and Systems
- Moving Loads by Slings and Lifting.

Students must take responsibility for managing their own progress and compiling a portfolio of evidence demonstrating skill attainment. Students have access to well-equipped engineering workshops, computer and laboratory facilities for private study. There are external visits to local industry and technical establishments.

Key Skills

All students aged 16-18 are required to complete the three Key Skills Units in Communication, Application of Number and Information Technology.

Qualifications/experience needed to join the course

4 GCSE passes or equivalent qualifications or industrial experience. You should enjoy practical tasks while having an aptitude and enthusiasm for engineering and technology. All applicants will be invited to attend an interview.

Study Centre

Main site, Kingsway, Dunstable.

After the course is finished

Students can gain employment in the engineering industry, go on to an Apprenticeship scheme or further full-time study on a technician course.



21105 07 (Manufacturing, Operations & Maintenance and Electronics) BTEC First Diploma in Engineering

Level 2

This course prepares you for a career in the engineering sector and is directly relevant to the changing needs of employers. It provides a good progression route to more advanced qualifications. It is equivalent to 4 GCSEs at grades A-C.

Course Duration
One year

Course Content
A broad range of units are offered.

Examples of such units are:

- Mathematics
- Science
- Electronics
- Engineering Fundamentals
- Workshop Practices
- CNC Fundamentals
- Building and Testing Electronic Circuits

- Operations and Maintenance
- Engineering Processes & Techniques
- Drawing and CAD.

You will have an opportunity to improve your GCSE grades in English and Maths while at College. Students have access to well-equipped engineering workshops, computer and laboratory facilities for practical tests.

Key Skills

All students aged 16-18 are required to complete the three Key Skills Units in Communication, Application of Number and Information Technology.

Qualifications/experience needed to join the course

At least 2 GCSEs at Grade D or above. You must also have an aptitude and

enthusiasm for engineering and technology. All applicants will be invited to attend an interview.

Study Centre
Main site, Kingsway, Dunstable.

After the course is finished

You can go on to the BTEC National Diploma in Engineering, an Apprenticeship Scheme or another technology-related course. Alternatively you can seek employment in the electrical, mechanical or maintenance engineering industry.

21106 07 BTEC National Diploma in Engineering



Level 3

This is a practical, work-related course. You will learn by completing projects and assignments based on realistic workplace situations. You will develop skills needed for careers in engineering. This qualification is equivalent to three A Levels and leads to higher education or into employment.

Course Duration
Two years

Course Content
A wide range of units are offered on the Diploma programme to give students a range of opportunities in engineering. The Diploma includes 6 Core Units and a variety of Optional Units to meet the requirements of local industry. A total of 18 Units must be achieved to complete the course.

Examples of such units are:

- Engineering Systems
- Engineering Materials
- Science for Engineering
- Instrumentation and Control
- Electronic Systems
- Computer Systems and Applications.

You will have an opportunity to gain an NVQ Level 2 in either Mechanical Production, Electrical/ Electronics or Computer Aided Design, while studying for this course. Students have access to well-equipped engineering workshops, computer and

laboratory facilities for practical work which may enable you to gain additional qualifications. There are external visits to local industry and technical establishments.

Key Skills

All students aged 16-18 are required to complete the three Key Skills Units in Communication, Application of Number and Information Technology.

Qualifications/experience needed to join the course

You will need either:

- A minimum of 4 GCSE passes at Grade C (including English and Maths)
- A GNVQ Intermediate or
- A First Diploma.

Mature students require relevant industrial experience and/or an equivalent qualification. You must also have an aptitude and enthusiasm for engineering and technology. All applicants will be invited to attend an interview.

Study Centre
Main site, Kingsway, Dunstable.

After the course is finished

On successful completion of the course, you go on to either a Foundation Degree in Mechanical, Manufacturing, Electrical or Electronic Engineering or an Apprenticeship or employment in an engineering- related field.



21401 07 City and Guilds Progression Award Motor Vehicle Repair & Maintenance

Level 1

This is a "hands-on" course, ideal for those with an interest in Motor Vehicles and careers in this sector. It is ideal preparation for further study in this area or on other engineering-related courses.

Course Duration

One year

Course Content

You will study:

- Basic Principles of Motor Vehicles
- Maintenance and Servicing of Motor Vehicles
- Use of Instruction Manuals
- Welding
- Repair and Maintenance of Bodywork.

Basic theory of a motor vehicle will also be covered.

Key Skills

All students aged 16-18 are required to complete the three Key Skills Units in Communication, Application of Number and Information Technology.

Qualifications/experience needed to join the course

Applicants will need 2 GCSEs at Grade D and above in English and Maths, or relevant motor vehicle experience. All applicants will be invited to attend an informal interview.

Study Centre

Kingsland Skills and Enterprise Centre, Houghton Regis.

After the course is finished

On successful completion of this course, students can progress to an NVQ in Motor Vehicle Studies or to other engineering-related courses.

21402 07 City & Guilds 3901 Award in Automotive Vehicle Maintenance Entry Level 3

This course is for people with an interest in Motor Vehicle, who may not have any previous qualifications. You will gain the necessary skills to progress to a higher-level course in Motor Vehicle Studies or Engineering.

Course Duration

One year

Course Content

Students will study the following:

- Engine Lubrication Systems
- Engine Cooling Systems
- Fuel and Exhaust Systems
- Spark Ignition Systems
- Electrical Systems
- Braking Systems
- Transmission Systems
- Steering and Suspension Systems
- Wheel and Tyre Systems
- Body and Interior Cleaning.

Students have access to well-equipped engineering workshops and computer facilities.

Key Skills

All students aged 16-18 are required to complete the three Key Skills Units in Communication, Application of Number and Information Technology.

Qualifications/experience needed to join the course

No formal qualifications are required but all applicants must be 16 years old or over. All applicants will be invited to attend an interview.

Study Centre

Kingsland Skills and Enterprise Centre, Houghton Regis.

After the course is finished

Students can progress to other engineering courses at the College.

Additional Information

To be awarded a full certificate a student must successfully complete all 10 units.

