

Engineering Level 3

In a fast pace and constantly developing world there is always **high demand** for **Engineers**. It is a well reported fact that there is currently a shortage of engineers within all industries across various countries around the world. Engineers are extremely **employable**, in the UK alone, the manufacturing sector employs **2.7 million** people at an average wage of **£34,538**. Generally, within the engineering sector the wages are **13% higher** than the rest of the economy. **A career in engineering** provides successful students with a defined career path that provides many opportunities (Source: Make UK 2020).

This **A level equivalent** (level 3) Engineering course equips students with the foundation and specialist knowledge which allows you to progress onto **employment, apprenticeship** or further study at **University**. These next steps could include industries such as Aerospace, Biomedical, Armed Forces, Manufacturing, Nuclear, Oil & Gas, Renewable Energy, Automotive and Rail sectors.



The course is designed around core engineering subjects and is designed to provide a **fun** and **interesting** learning environment including **practical** and **theory**. We have vast **employer links** with companies such as **Marshalls Aerospace and Defence Group, The Welding Institute, Port of Felixstowe, EDF, UK Power networks, Warren Services, Claas, Lotus, Baxters, Bosch, Nestle Purina, Siemens, PPG, RAF, United State Airforce, British Sugar and Green King**. These employer links ensure students have the **desirable skills** determined from real life employers and provides the connections for employment opportunities.

Aeronautical Engineering

The commercial **aerospace** industry currently is in a difficult situation; however, this is only temporary and will bounce back by the time you qualify. Furthermore, the Military and Freight remains a thriving industry who are always looking for fresh innovative engineers.

The aerospace industry covers a wide range of job opportunities from **design, stress analysis, avionics, maintenance, project management, quality, accident investigation, logistics, sustainability and flight operations.**



Course Content

In **year 1** you will learn the underpinning skills required to be a competent engineer across all industries. This covers subjects such as **Mechanical Principles, Materials, Electronics, Computer Aided Design, Hydraulics and Pneumatics** to include practical and theory based learning.

On successful completion of year 1, students' progress onto **year 2** and specialise in **Aeronautical Engineering**. Year 2 has exciting modules allowing students to develop specific Aeronautical skills and express your **creativity** and **interests** within your chosen **project**. Specialist subjects such as **Aircraft Flight Principles and Practice** and **Airframe Mechanical Systems** form the Aeronautical Engineering pathway along with other core engineering modules.

Application Process

Application are submitted online via the following web address:

[Engineering Extended Diploma Level 3 \(wsc.ac.uk\)](http://wsc.ac.uk)

Next you will be invited to discuss your application with the Engineering team by manner of an informal interview. A conditional or unconditional offer may then be made dependent on your qualifications and performance at interview.

Entry requirements

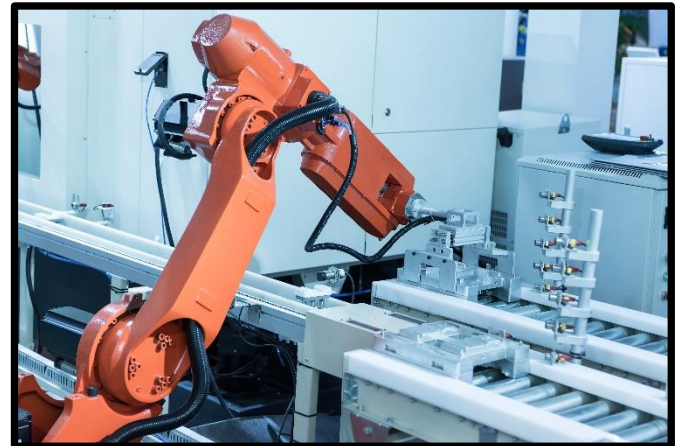
Grade 4 (C) in English
Grade 4 (C) in Mathematics

Attendance

2 years, 3 days a week
Starting September 2021

Automation and Robotics focuses on Mechatronic Design and can be defined as the integrated and optimal design of a mechanical system and its embedded control system. Robotics is applied to many applications such as automotive, mobile and flying robots, advanced production machines, telemanipulation, micro-electro-mechanical systems.

The Robotics industry covers a wide range of job opportunities from **robot cell design, robot programming, automation design and maintenance, research and development and robot operator.**



Course Content

In **year 1** you will learn the underpinning skills required to be a competent engineer across all industries. This covers subjects such as **Mechanical Principles, Materials, Electronics, Computer Aided Design (CAD), Hydraulics and Pneumatics** to include practical and theory based learning.

On successful completion of year 1, students' progress onto **year 2** and specialise in **Robotics and Automation**. Year 2 has exciting modules allowing students to develop specific Robotic skills and express your **creativity** and **interests** within your chosen **project**. Specialist subjects such as **Industrial Robot Technology** and **Selecting and Using Programmable Controllers** form the Robotics and Automation pathway along with other core engineering modules.

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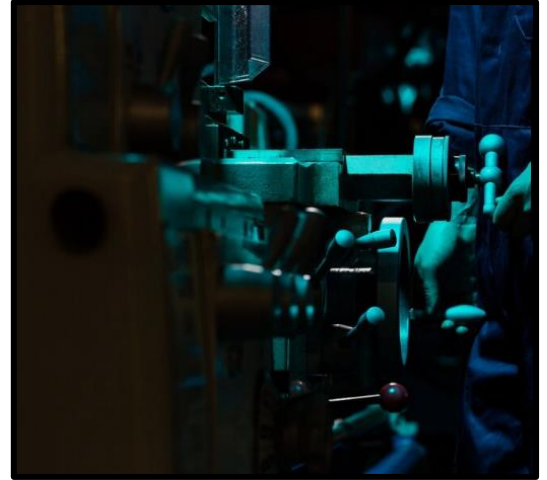
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Operations and Maintenance Engineers provide a vital role in maintaining the safety, integrity and effective operation of plant and equipment. A qualification in Operations and Maintenance could lead to jobs in the following sectors; electricity generation, telecommunications, manufacturing, processing and production of chemicals, pharmaceuticals, human and animal food, cosmetics, petrochemicals and off-shore energy.

The Operations and Maintenance role in industry covers a wide range of job opportunities from **Electrical Maintenance; Mechanical Maintenance; Control & Instrumentation, Fluid power maintenance, Process Control, Electromechanical and Plant Operations.**



Course Content

In **year 1** you will learn the underpinning skills required to be a competent engineer across all industries. This covers subjects such as **Mechanical Principles, Materials, Electronics, Computer Aided Design, Hydraulics and Pneumatics** to include practical and theory based learning.

On successful completion of year 1, students' progress onto **year 2** and specialise in **Operations and Maintenance**. Year 2 has exciting modules allowing students to develop specific skills and express your **creativity** and **interests** within your chosen **project**. **Specialist subjects such as Engineering Maintenance Procedures and Techniques** and **Business Operations in Engineering** form the Operations and Maintenance pathway along with other core engineering modules.

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(wsc.ac.uk)

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