

General Enquiries

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Level 2 Diploma in Advanced Manufacturing Engineering

Location	Stockport College
Course Type	College 16-18
Department	Engineering
Start Date	Monday 2nd September 2024
Course Code	SFP-EG2D-1300

Course Overview

The Engineering Foundation Competence course is a pivotal step in building a solid engineering education. Spanning two years, this program offers a comprehensive introduction to the fundamental principles of engineering. Students will delve into mathematics, physics, and engineering science, laying a strong theoretical groundwork. Hands-on practical workshops will hone their skills in using industry-standard tools and equipment. Safety practices and ethical considerations are integrated into the curriculum. This course not only paves the way for further specialization in engineering disciplines but also prepares students for apprenticeships and entry-level roles in diverse sectors like civil, mechanical, or electrical engineering. It's the cornerstone of a promising engineering career.

Course Requirements

4 GCSE's at Grade 3 or above (including maths and/or English Language).

What You Will Learn

Learners will develop skills needed to carry out different activities related to advanced manufacturing engineering. Learners will develop transferable skills valued by employers such as working efficiently and effectively and contribute to improving business performance. Critically they will learn to carry out tasks to meet regulatory and legal requirements

Assessment

Examinations:

Written exams assess theoretical knowledge and understanding of mathematical and scientific principles, as well as engineering concepts and principles.

Coursework and Assignments:

Coursework may involve completing assignments, essays, and problem sets related to engineering topics. These assignments help students apply their theoretical knowledge to practical scenarios.

Practical Assessments:

Practical assessments evaluate students' hands-on skills and their ability to work safely in a workshop or laboratory setting. This may include tasks related to machining, welding, assembly, and the use of engineering tools and equipment.

Progression

Level 3 Apprenticeship

Level 3 T Level engineering

Career Options

Engineering Apprenticeship: Many students use this foundational knowledge as a springboard to enter engineering apprenticeship programs, where they gain practical experience while continuing their education.

Engineering Technician: Graduates can work as engineering technicians, supporting engineers in various roles. They may assist in design, testing, maintenance, and troubleshooting.

Manufacturing Technician: Skills acquired in practical workshops make graduates well-suited for roles in manufacturing, where they can work on production lines, quality control, and process improvement.

CAD Technician: Knowledge of engineering drawing and computer-aided design (CAD) can lead to careers as CAD technicians, where individuals create detailed technical drawings and plans.

Technical Sales: Some graduates find success in technical sales or customer support roles, where they apply their engineering knowledge to assist clients with product selection and technical inquiries.

Quality Control Inspector: Those with a strong understanding of engineering principles and attention to detail can pursue careers as quality control inspectors, ensuring that products meet industry standards.

Further Education: Graduates can continue their education by enrolling in bachelor's degree programs in engineering disciplines such as mechanical, electrical, civil, or aerospace engineering.

Engineering Support Roles: Opportunities exist in various engineering support roles, including administrative positions, project coordination, and procurement, where foundational knowledge of engineering is valuable.

Process Technician: In industries like chemical or pharmaceutical manufacturing, graduates can work as process technicians, monitoring and optimizing production processes.

Mandatory Units

Mathematics for Engineering:

This unit covers fundamental mathematical concepts and techniques relevant to engineering, including algebra, trigonometry, calculus, and statistics.

Physics for Engineering:

This unit explores essential principles of physics, such as mechanics, thermodynamics, electricity, and magnetism, with a focus on their applications in engineering.

Engineering Principles:

This unit introduces core engineering concepts, including forces, materials, stress and strain, and basic engineering analysis.

Engineering Drawing and CAD (Computer-Aided Design):

Students learn how to create and interpret technical drawings, use CAD software, and understand geometric dimensioning and tolerancing.

Practical Workshop Skills:

This unit focuses on developing hands-on skills in engineering workshops, including machining, welding, assembly, and the safe use of tools and equipment.

Health and Safety in Engineering:

Emphasizing safety regulations and practices specific to engineering environments, this unit ensures that students understand and prioritize workplace safety.

Communication for Engineers:

This unit hones students' communication skills, including technical writing, oral presentations, and teamwork, which are vital in engineering projects and careers.

Contact Details

For further information please contact T: 0161 886 7070 or E: info@trafford.ac.uk

Disclaimer

Although every care has been taken to ensure that the information contained within this document is accurate, there may be changes to this programme and provision. We will endeavour to keep prospective and current students updated where appropriate and when the information becomes available.