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HNC Engineering (Mechatronics)

Location	Stretford Campus
Course Type	University level
Department	Engineering
Start Date	Monday 14th September 2026
Duration	Full-time, 1 Year
Time	-
Fee	£ 8000.00
Course Code	TFQ-HM4H-1700

Course Overview

This course will develop students' abilities and confidence to work across different engineering functions and to lead, manage and respond to change and tackle a range of complex engineering situation. Completion of the eight units of study will provide the core skills required for a range of careers in engineering, specifically those related to mechatronics. You will gain insight into mechatronics engineering operations and the impact that new digital and software technologies have on the engineering environment.

The HNC Mechatronics provides a solid grounding in mechatronics on which students can build by progression to a Level 5 HND in Engineering and continuing or entering employment in this field.

Course Requirements

Whilst applications are considered on individual basis, offers are usually based on the requirement to have:
64 UCAS points from either:
- A level 3 vocational qualification in a related subject
- GCE A levels
- An Access to Higher Education Diploma in a related subject
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Applicants should have GCSEs grades C/4 or above in maths and English or the equivalent level 2 qualifications.
Mature students with relevant work experience and/or professional qualifications are welcome to apply and may be asked to attend interview

What You Will Learn

The Engineering Design unit explores the design process, from client brief to planning, design specification and evaluation. Essential for problem solving, is your ability to apply algebra, trigonometry, calculus, statistics and probability, which are the focus of the Engineering Maths unit. Alongside this you will develop an understanding of electrical and electronic principles.

You will at the same time develop academic study skills including active research, effective writing, analytical and critical thinking skills, problem solving and the use of digital technology.

Assessment

Coursework and Assignments: Coursework and assignments are common assessment tools. Students are given specific projects or tasks related to their coursework, and they are evaluated on their ability to apply theoretical knowledge to practical problems.

Practical Work: Practical laboratory sessions are a crucial part of an electrical engineering program. Students may be assessed on their ability to conduct experiments, analyse data, and draw conclusions from their findings.

Reports and Technical Writing: Students may be required to write technical reports based on their laboratory work or projects. These reports assess their ability to communicate technical information effectively.

Presentations: Students may be asked to give presentations on engineering topics, projects, or case studies. This assesses their communication and presentation skills, as well as their understanding of the subject matter.

Extensive use is made of computer modelling and simulation techniques and an emphasis is put on practical applications throughout.

Progression

On completion you may progress to one of our Level 5 HND Engineering qualifications.

Students may then choose to complete an undergraduate degree with a Level 6 top up, such as:

BEng (Hons) Engineering (Mechatronics)
BEng (Hons) Mechatronics
BEng (Hons) Mechatronics and Autonomous Systems
BEng (Hons) Mechatronics and Computer Systems Engineering
BEng (Hons) Mechatronics and Intelligent Machines

Career Options

On completion, you may consider roles such as:

Mechatronics Technician
Engineering Manufacturing Technician
Assistant Project Manager

Mandatory Units

At level 4 you study:

Engineering Design
Engineering Maths
Engineering Science 1
CAD Schematics for Maintenance Engineering
Managing a Professional Engineering Project
Electrical and Electronic Principles
Mechatronics
Automation, Robotics and Programmable Logic Controllers (PLCs)
Digital Principles

Extra Costs Involved

No

Exam Validation Body

Pearson Education Ltd.

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Hours Per Week

6 hours (1 day) part-time or 12 hours (2 days) full-time.

How Long To Complete

Two years part-time with one full day attendance per week, or one year full-time with the equivalent of two full day attendance per week.

Contact Details

For further information please email HEenquiries@tcg.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.