General Enquiries
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HNC in Mechatronics for England (HTQ)

Location	Stretford Campus
Course Type	University Level
Department	Engineering
Start Date	Tuesday 16th September 2025
Duration	Part-time, 2 Years
Time	09:00 - 17:00
Fee	£ 4000.00
Course Code	TPQ-HM4H-1500

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 an individual basis, they are usually based on a requirement to have 64 UCAS points from either:

A relevant level 3 vocational qualification, GCE A levels or an Access to Higher Education Diploma

GCSE English Language and Maths at grade C/4 or above.

Mature students with relevant experience and/or professional qualifications are welcome to apply, and may be invited to 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. Mechanical Principles includes the study of fundamental laws and applications of physical sciences within engineering, including static and dynamic forces, fluid mechanics, and thermodynamics. This knowledge is supplemented by developing an understanding of the integration of mechanical engineering, electronics, computer control, and information technology.

In the Digital Principles unit, you will acquire an understanding of digital systems and their applications in modern engineering.
Exploration of the principles and practices involved in manufacturing processes and techniques for improving quality and efficiency in engineering processes, are each covered in specialist units.

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

Assessment is continuous and includes a wide range of methods including the preparation of reports, delivery of formal presentations, problem solving scenarios and the application of practical skills to workplace scenarios. You will be expected to complete one or two pieces of assessed work for each of the eight units.

Progression

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

Student 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
- Managing a Professional Engineering Project
- Production Engineering for Manufacture
- Quality and Process Improvement
- Engineering Mechanics and Materials
- Analogue and Digital Electronics
- Mechatronic Systems in Manufacturing

Extra Costs Involved

No

Exam Validation Body

Pearson Education Ltd.

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Hours Per Week

Full time, 12 hours per week (day)
Part time, 6 hours per week (day)

How Long To Complete

1 year full time or 2 years part time

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.