

# Higher Aspirations Scheme

Engineering (Electrical and Mechanical)

Aviation Engineering

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# Agenda



About us



Benefits of studying at CCN



Course Information



Student/Employer Experiences



Q & A

# About us - City College Norwich

- Higher Education Engineering provision at Ipswich road campus
- Aviation is studied at IAAN
- State of the art facilities
- CCN delivering higher education programmes since 1980s
- In recent years we have been able to offer apprenticeships
- Pearson BTEC approved centre
- Association with UEA since 2000
- ~700 students across HE programmes, ranging from HNC/D, Foundation and Bachelor degrees and degree apprenticeships.



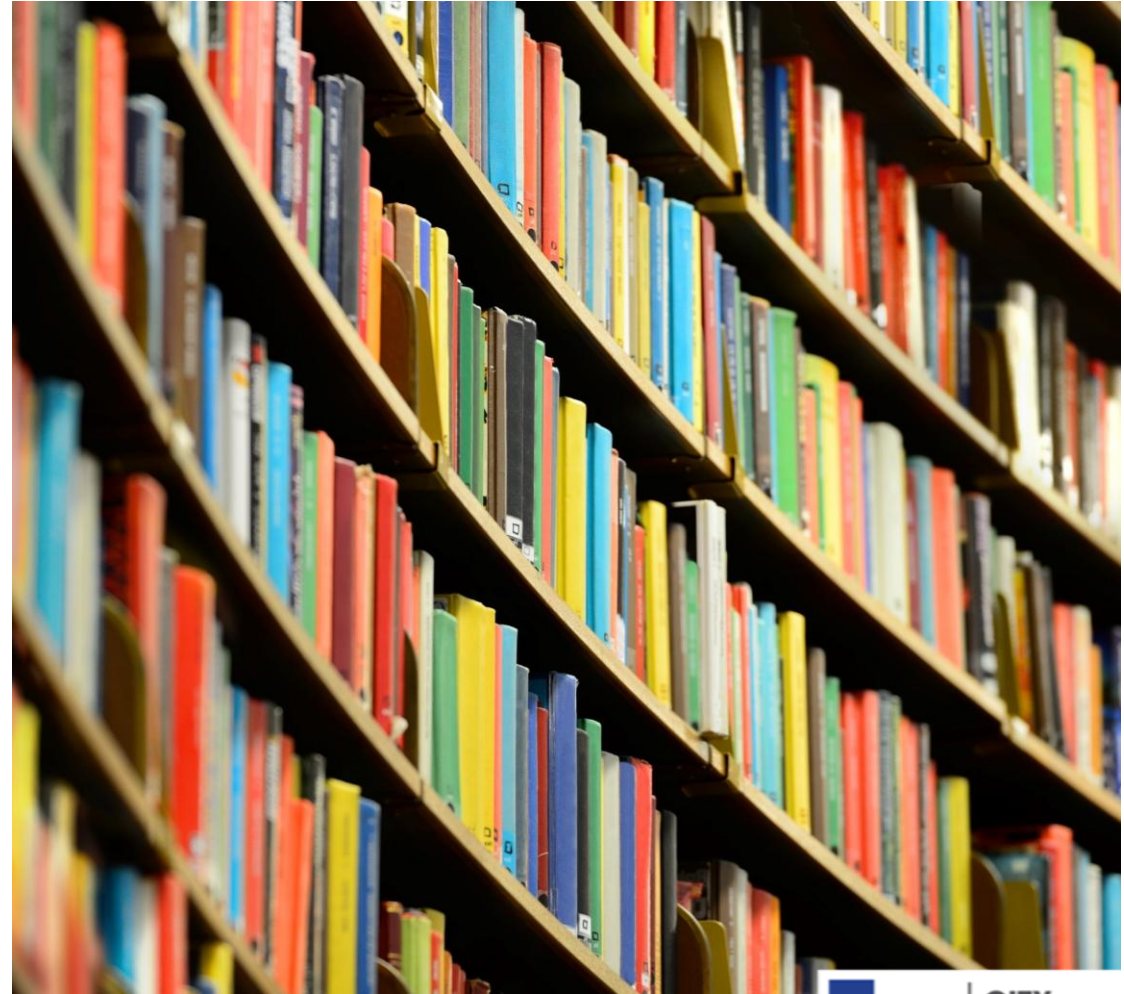
# Why study with CCN HE?

- ✓ Personal Learning
- ✓ Small Group Interactive Teaching
- ✓ Tutors with a broad range of industry expertise
- ✓ Multiple Campuses- including library, student spaces.
- ✓ Option to Stay Local
- ✓ UEA Awarded Degrees
- ✓ CCN HE Support
- ✓ Employer engagement/ Guest speakers/ Trips
- ✓ Graduation at Norwich Cathedral



# Support Available

- **HE Tutorial Supervisor**
  - SpLD support
- **HE Progression Supervisor**
  - Career support
- **Library Support**
  - Referencing and source finding
- **Module Tutors**
  - Academic support for modules and assignments
- **Apprenticeship Workplace Supervisor**
  - Apprenticeship Progress Reviews (held quarterly)
  - Gateway/EPA Support
- **Employer Mentor for Apprentices**



# Engineering Provision



## Aviation

FdSc Aircraft Maintenance Engineering

Level 5, Full Time, 2 years, International Aviation Academy Norwich

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FdSc Aircraft Maintenance Engineering, with a Foundation Year

Level 5, Full Time, 3 years, International Aviation Academy Norwich

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**Aircraft Engineering**

## Engineering

HNC Electrical and Electronic Engineering for England

Level 4, Part Time, 18 months, City College Norwich campus

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HNC Mechanical Engineering for England

Level 4, Part Time, 18 months, City College Norwich campus

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Higher Apprenticeship - Engineering Manufacturing Technician (Electrical and Electronic Engineering)

Level 4, Apprenticeship, 3 years, City College Norwich campus

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Higher Apprenticeship - Engineering Manufacturing Technician (Mechanical Engineering)

Level 4, Apprenticeship, 2 years, City College Norwich campus

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# Entry requirements

## Aviation

FdSc Aviation Maintenance Engineering  
(with Foundation Year)

64 UCAS Points

GCSE 4+ (5 subjects including Maths and English) & Interview

FdSc Aviation Maintenance Engineering

96 UCAS Points

GCSE 4+ (5 subjects including Maths and English) & Interview

BSc (Hons) Professional Aviation  
Engineering Practice Top Up

FdSc Aviation Maintenance Engineering

240 HE Credits (120 at L5)

## Engineering Apprenticeship



GCSE grades at A\* to C (or equivalent) and/or 9 to 4/5 (or equivalent) in Maths and English.



A Level 3 qualification in a relevant subject. Mature students with relevant industrial background may also be considered subject to interview.



Prior to starting there will be an informal interview and a skills scan to ensure this is the right course and you are fully aware of the commitment required.

## Engineering HNCs

You will need at least one of the following:

### GCSEs

- Grade C/4 or above in Mathematics and English (or equivalent)

### A Levels

- At least one A Level in a relevant subject (e.g., Mathematics, Physics, or Engineering)

### BTEC

- Level 3 Diploma or Extended Diploma in Engineering or a similar field

### NVQ

- NVQ Level 3 or equivalent in a related subject

# Course Structure- Engineering

HNC require 120 credits, comprising 8 units (15 credits each) at Level 4

## HNC Mechanical Engineering for England (HTQ)

- Mechanical Principles
- Fluid Mechanics
- Fundamentals of Thermodynamics and Heat Engines
- Quality and Process Improvement
- Production Engineering for Manufacture
- Engineering Design
- Engineering Maths
- Managing a Professional Engineering Project

## HNC Electrical and Electronic Engineering for England (HTQ)

- Automation, Robotics and PLCs
- Electrical and Electronic Principles
- Electrical Machines
- Quality and Process Improvement
- Production Engineering for Manufacture
- Engineering Design
- Engineering Maths
- Managing a Professional Engineering Project

# Course Structure- Aviation

## FdSc Aviation Maintenance Engineering (with Foundation Year)

- Engineering Fundamentals
- Aerodynamics & Electronic Instrument Systems
- Aircraft Materials & Hardware
- Aircraft Maintenance
- Human Factors & Aviation Legislation
- Turbine Engines and Propellers
- Workshop and Hangar Practice
- Turbine Aeroplanes

## FdSc Aviation Maintenance Engineering

- Level 4 Modules (20 credits):
  - Human Factors and Legislation
  - Maintenance Practices Theory
  - Materials and Hardware
  - Application of the Principles of Physics
  - Maintenance Practices Practical
  - Professional & Academic Skills
- Level 5 Modules (30 Credits):
  - Electrical Fundamentals
  - Engines and Propellers
  - Aeroplane Aerodynamics, Structures and Systems
  - Electronic Fundamentals, Digital Techniques and Aerodynamics

UKCAA CATB1.1

# Assessment Methods

- Variety of assessment methods used:
  - Written assignments
  - Exams – open and closed book
  - Work-based portfolios
  - Group work exercises
  - Presentations
  - Practicals
  - Portfolios
  - Projects
  - Exhibitions

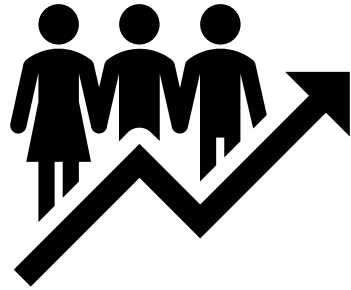


# HNCs/ HTQs are Pearson Endorsed

Pearson state:

- **Purpose of the Pearson BTEC Higher Nationals for England:**
- *The purpose of these qualifications is to **develop students as professional**, self-reflecting individuals able to **meet the demands of employers** in the engineering sectors and adapt to a constantly changing world. The qualifications aim to widen access to higher education and enhance the career prospects of those who undertake them.*
- *Qualifications that are indicated as ‘for England’ are designed to meet the requirements of **specific Occupational Standards**.*
- *Meeting the requirements of the Occupational Standards relates to:*
  - *qualifications that are ‘quality marked’ as **Higher Technical Qualifications (HTQ)***
  - *the knowledge, skills and behaviours for identified **job roles** associated with the relevant Occupational Standards.*

# Progression post apprenticeship/ HNC:



There may be opportunity to “top up” at City College Norwich to level 5 achieving HND.

In addition, Pearson state:

*“University recognition and articulations: We work with a range of higher education institutions around the world that recognise and accept Pearson BTEC Higher Nationals as qualifications for entry to an undergraduate degree. Many universities allow **advanced entry** to the second or third year of a degree, and agreements can include credit transfer, articulation and case-by-case admission.”*

Norwich City College work with students and providers to support top up to level 6.

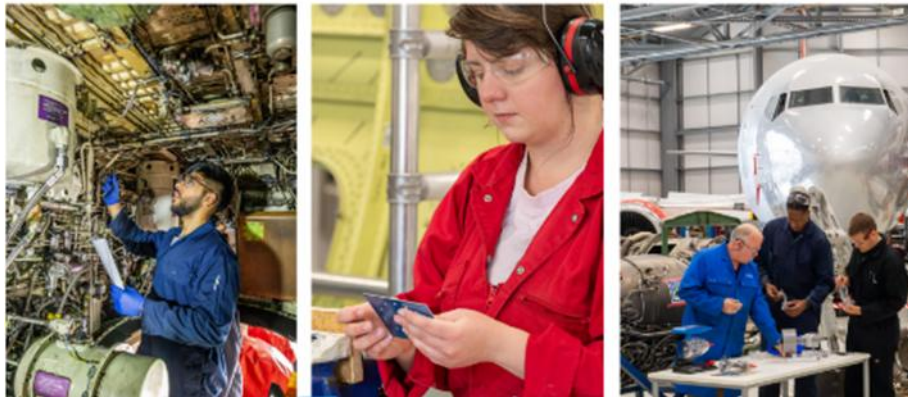


# Course Progression Routes (Aviation)

- Ryan Air
- KLM Graduate Scheme
- Virgin Atlantic
- Bombardier



# Hear from our students...



**Student spotlight**

## Adam

Studied: BSc (Hons) Professional Aviation Engineering Practice  
Currently: An Avionics apprentice with Eagle Copters in Calgary, Canada

I graduated with a BSc (Hons) in Professional Aviation Engineering Practice in 2022, and shortly afterwards I secured an avionics apprenticeship with Eagle Copters in Calgary, Canada. I'm absolutely loving the role - no two days are ever the same!

I've had the opportunity to work on a wide range of aircraft, including helicopters used by the Calgary Police, air ambulances, and those involved in aerial firefighting - which is especially important here due to the frequent forest fires. One of the highlights so far has been working on a helicopter that appeared in the final series of Stranger Things! At the moment, we're working on a Bell 205 helicopter with a 1963 serial number that actually flew in the Vietnam War. The variety of projects I get to be involved in is incredible.

**My time on the course really gave me the knowledge and practical skills I needed to step straight into the industry.**

Employers are really keen on candidates who've had hands-on experience, and the Boeing 737 at the International Aviation Academy - or 'Elsie' as we all called her - was perfect for that. We had loads of opportunities to apply what we were learning in a real-world setting.

Another major benefit was learning from lecturers who had worked in the aviation industry for years - both from KLM and City College. Their insights and experience were invaluable and played a big part in helping me land my first position after graduation.

Looking ahead, I'm aiming to get my avionics licence and eventually move into aircraft design and certification engineering.

# Hear from our students...



## JAKE - ADVANCED MANUFACTURING ENGINEERING

*I joined City College Norwich as a Junior Product Designer. I thoroughly enjoyed my time studying my HN in Mechanical Engineering as we always had exceptional support from the staff and course lecturers. The course was useful, informative and has improved my general engineering knowledge. My qualification has been key in my progression to my current role as Project Engineer.”*



Started with Berry Global Ltd.  
Now working as an Assistant Project  
Manager at National Gas

# Next Steps...

- Contact CCN HE team for any course related queries
  - Engineering- Dr Dimitris Kakofengitis:  
Dimitris.kakofengistis@ccn.ac.uk
  - Aviation- Andy Bullen: andy.bullen@ccn.ac.uk
- Contact the apprenticeship team to complete a start up request
  - [apprenticeships@ccn.ac.uk](mailto:apprenticeships@ccn.ac.uk)
  - 01603 773365
- Applicants invited for an interview, possibly by telephone/Teams
- Students invited to an induction event (August/ September)
- Start the course in September

FdSc Aviation Maintenance  
Engineering UCAS Course  
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# Q&A

Time for your questions

