

WELCOME TO UNIVERSITY CENTRE COLCHESTER ENGINEERING INDUCTION

Induction Agenda

- Brief health and safety notices.
- A welcome talk from the Principal and supporting team.
- Information about your course and University Centre Colchester (UCC).
- Overview of the campus and facilities.
- Overview of IT systems and getting you logged into systems.
- Apprentices only - further information and eLearning.**
- An overview of what happens next in your induction.

PART 1: INTRODUCTION

Health and Safety



- Important information:

- Toilets are located...
- In the event of a fire...
- Food and drink in the rooms.
- Lanyards.
- Smoking and vaping.

- You will view a more detailed health and safety presentation in the next phase of your induction.
- Your course team will make you aware of any additional health and safety policies that relate to your specific course.

PART 2: WELCOME TALK

Your Team

- Head of Professional Construction, Engineering & Manufacturing: **Iain Jacobs**
- Assistant Area Head HE Engineering & Professional Construction: **Dr Dominic O.**
- Apprenticeship Manager for Engineering, Manufacturing and Professional Construction: **Alex Collins**

Your Team

- Technical Trainer - Engineering and Professional Construction Apprenticeships: **Peter Mansfield**
- Lecturers:
 - Dr Mohamed Ahmed
 - Dr Becky Corley
 - John Dorward
 - Dr Dominic O.
 - Graham Meek
 - Dr Martin Braun

PART 3: COURSE STRUCTURE

HNC & HND Engineering

HNC/D OBJECTIVES

- To provide you with the **core knowledge, skills and techniques** that **all engineers require, irrespective of future specialism**, to achieve high performance in the engineering profession.
- To build a body of **specialist knowledge, skills and techniques in order to be successful in a range of careers** in engineering at the Technician or Engineer level.
- To **develop the skills necessary for fault finding and problem solving in a timely, professional manner, reflecting on your work and contributing to the development of the process and environment** they operate within.

HNC/D Objectives

- To **understand the responsibilities of the engineer within society, and work with integrity, regard for cost, sustainability and the rapid rate of change experienced in world class engineering.**
- To **provide opportunities for you to enter, or progress in, employment within the engineering sector, or progress to higher education qualifications such as degrees and honours degree in engineering or a closely related area, by balancing employability skills with academic attainment.**
- To provide opportunities for students to **make progress towards achieving internationally recognised registration with a Professional Body regulated by the Engineering Council.**

HNC/D Objectives – how they are met..

- Providing a **thorough grounding in engineering principles at Level 4 that leads you to a range of specialist progression pathways at Level 5**, relating to individual professions within the engineering sector.
- Equipping you with the **essential qualities of an engineer, including integrity, regard for cost and sustainability, as they apply to a range of roles and responsibilities** within the sector.
- Enabling progression to a university degree by supporting the development of academic study skills and the selection of appropriate units for study at Level 4 or 5.
- Enabling **progression to further professional qualifications in specific engineering disciplines by mapping the units studied to the requirements of the Professional Bodies applicable to that discipline.**

Core Units
Optional Units
Specialist Units

Note: If the student has no prior practical experience then it is recommended that Unit 10 Mechanical Workshop Practices is the selected optional unit

Level 4 Higher National Certificate in Engineering (General Engineering)
1 Engineering Design
2 Engineering Maths
3 Engineering Science
4 Managing a Professional Engineering Project (Pearson-set)
Plus one optional unit from General Optional Unit Bank Level 4 (see below)
Plus one optional unit from General Optional Unit Bank Level 4 (see below)
Plus one optional unit from General Optional Unit Bank Level 4 (see below)
Plus one optional unit from General Optional Unit Bank Level 4 (see below)

Level 4 Higher National Certificate in Engineering (Electrical and Electronic Engineering)
1 Engineering Design
2 Engineering Maths
3 Engineering Science
4 Managing a Professional Engineering Project (Pearson-set)
19 Electrical and Electronic Principles
Plus one optional unit from General Optional Unit Bank Level 4 (see below)
Plus one optional unit from General Optional Unit Bank Level 4 (see below)
Plus one optional unit from General Optional Unit Bank Level 4 (see below)

Level 4 Higher National Certificate in Engineering (Manufacturing Engineering)
1 Engineering Design
2 Engineering Maths
3 Engineering Science
4 Managing a Professional Engineering Project (Pearson-set)
14 Production Engineering for Manufacture
17 Quality and Process Improvement
Plus one optional unit from General Optional Unit Bank Level 4 (see below)
Plus one optional unit from General Optional Unit Bank Level 4 (see below)

Level 4 Higher National Certificate in Engineering (Mechanical Engineering)
1 Engineering Design
2 Engineering Maths
3 Engineering Science
4 Managing a Professional Engineering Project (Pearson-set)
8 Mechanical Principles
13 Fundamentals of Thermodynamics and Heat Engines
Plus one optional unit from General Optional Unit Bank Level 4 (see below)
Plus one optional unit from General Optional Unit Bank Level 4 (see below)

Level 4 Higher National Certificate in Engineering (Operations Engineering)
1 Engineering Design
2 Engineering Maths
3 Engineering Science
4 Managing a Professional Engineering Project (Pearson-set)
Plus one optional unit from Optional Unit Bank Group B (see below)
Plus one optional unit from Optional Unit Bank Group B (see below)
Plus one optional unit from Optional Unit Bank Group B (see below)
Plus one optional unit from Optional Unit Bank Group B (see below)

The new HNC and HND qualifications in Engineering offer a choice of one General Engineering pathway the choice of four specialist pathways (all pathways exist in both the HNC and HND):

- Electrical and Electronic Engineering
- Manufacturing Engineering
- Mechanical Engineering
- Operations Engineering

Each Higher National unit has a clear purpose: to cater for the increasing need for high quality professional and technical education pathways at levels 4 and 5, providing students with a clear line of sight to employment or progression to a degree at level 6.

The Higher National Certificate (HNC) is a Level 4 qualification made up of 120 credits. It is usually studied full-time over one year, or part-time over two years.

The Higher National Diploma (HND) is a Level 4 and Level 5 qualification made up of 240 credits. It is usually studied full-time over two years, or part-time over four years.

BTEC Higher Nationals consist of core units, specialist units and optional units:

- Core units are mandatory
- Specialist units are designed to provide a specific occupational focus to the qualification and are aligned to Professional Body standards
- Required combinations of optional units are clearly set out in the tables.

General Optional Unit Bank Level 4
All other pathways
5 Renewable Energy
6 Mechatronics
7 Machining and Processing of Engineering Materials
8 Mechanical Principles*
9 Materials, Properties and Testing
10 Mechanical Workshop Practices
11 Fluid Mechanics
12 Engineering Management
13 Fundamentals of Thermodynamics and Heat Engines*
14 Production Engineering for Manufacture*
15 Automation, Robotics and Programmable Logic Controllers

General Optional Unit Bank Level 4
16 Instrumentation and Control Systems
17 Quality and Process Improvement*
18 Maintenance Engineering
19 Electrical and Electronic Principles*
20 Digital Principles
21 Electrical Machines
22 Electronic Circuits and Devices*
23 Computer Aided Design and Manufacture (CAD/CAM)
29 Electro, Pneumatic and Hydraulic Systems
30 Operations and Plant Management
31 Electrical Systems and Fault Finding

General Optional Unit Bank Level 4
32 CAD for Maintenance Engineers
73 Materials Engineering with Polymers
74 Polymer Manufacturing Processes
Optional Unit Bank Group B: Operations Engineering
29 Electro, Pneumatic and Hydraulic Systems
30 Operations and Plant Management
31 Electrical Systems and Fault Finding
32 CAD for Maintenance Engineers

Progression opportunities:

The purpose of Pearson BTEC Higher Nationals in Engineering 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.

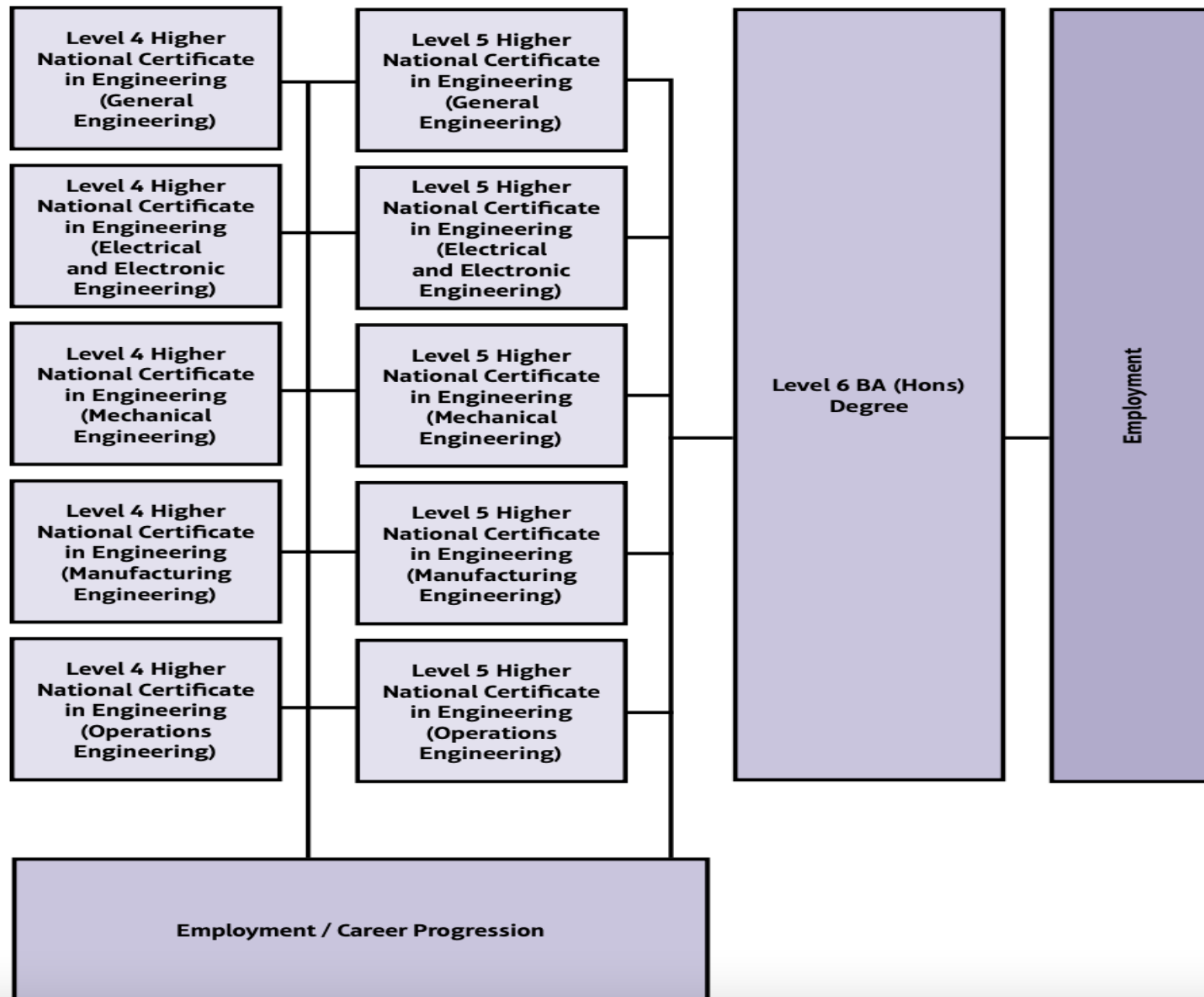
On successful completion of the Level 5 Higher National Diploma, students can develop their careers in the engineering sector through:

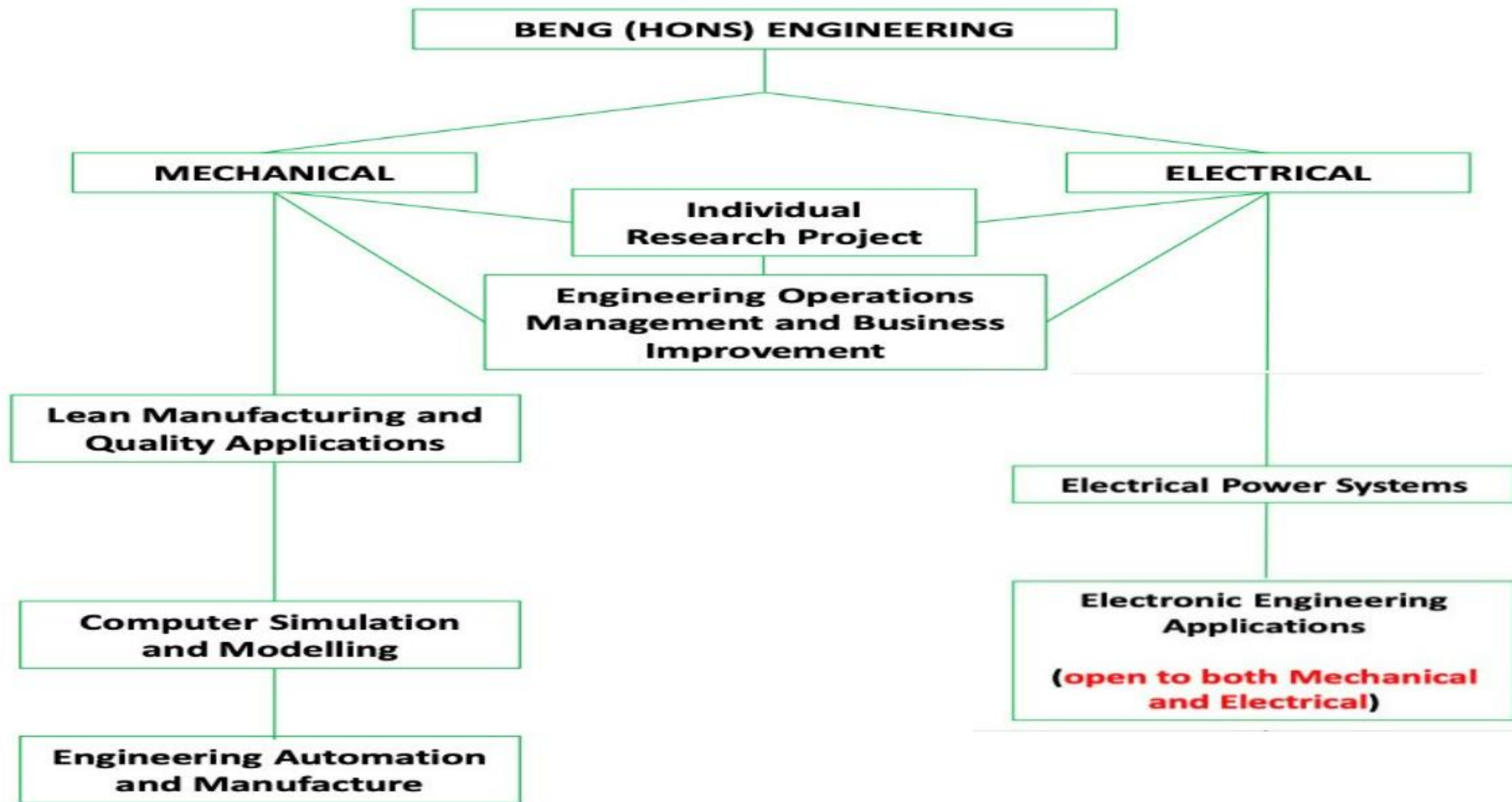
- Entering employment;
- Continuing existing employment;
- Linking with the appropriate Professional Body;
- Committing to Continuing Professional Development (CPD);
- Progressing to university.

Qualifications in engineering within the UK are referenced against the Engineering Council's UK specifications, which set standards at Levels 3, 6 and 8.

The Pearson BTEC Higher Nationals in Engineering are set at Level 4 and 5 and have been written with reference to the Engineering Council specification for Level 3 and 6. The content and level has been written following advice from the Engineering Professional Bodies and is intended to exempt holders of this qualification from the Level 4 and 5 requirements of these bodies, and articulate with the Level 6 in engineering degree courses.

Holders of a BTEC Higher National in Engineering meet the academic requirements for the Engineering Council Engineering Technician Standard (EngTech).





Your Resources

- Moodle
- Library
- UCC Academic Services

Your Timetable

To Be distributed shortly...

Academic and Pastoral Tutorials

- For each module that you study, you will have the opportunity to have up to 2 x 20-minute tutorials to discuss your work with your module tutor.
- Additionally, you will be able to have up to 1 x 30-minute pastoral tutorial with ** per semester.

PART 4: LIFE ON CAMPUS

Getting Around

Whilst some of your lectures are likely be held in the UCC building (labelled A), some will be in our other buildings so it will be good to familiarise yourself with the layout of campus.

We have a student lounge for UCC students to relax and eat in on the ground floor of the UCC building in room HE05.



Where can I find?

55 Degrees Cafe	A
Catering and Hospitality	R
CI Business Solutions	B
English and Maths Study Centre	K
Facilities	A
Groundworks	L
Hair and Beauty Salons	D
H Block	H

J Block	J
K Block	K
Lecture Theatre	D
Library	S
Main Hall	C
Main Reception	B
Main Refectory - Eat Central	C
Motor Vehicle and Welding Workshops	ENG
Sheepen House	SH
South Wing	S
Swinburne Hall	J
The Colne and Balcerne Restaurants	R
The Kent Blaxill Decorating Skills Centre	E
The Learning Shop	J
University Centre Colchester	A
West Wing	W



Travelling to UCC and Parking

Bus or Train

- Email student.finance@colchester.ac.uk or visit student services on the ground floor of B Block for information about bus passes or train tickets.

Bike or Motorbike

- Parking is free.
- Cycle bays are at the front of the main building.

Car

- If you're travelling by car, we have ANPR system which allows you entry and exit from the campus in the Eastgate entrance.
- The current cost is £2.50 per day. Further information can be found [here](#). QR codes are located in the car park.

Food and Drink on Campus

- The following refectories are open serving a range of hot and cold food and drinks:
 - Eat Central (C Block)
 - Costa (UCC Building)
 - Starbucks (K Block) coffee shop/light bites.
- *Opening times are displayed locally.*
- Within the CH&FS building there is CH&FS Takeaway on a Friday, and we also have the fantastic restaurant, [The Balkerne](#), which is open to the public.

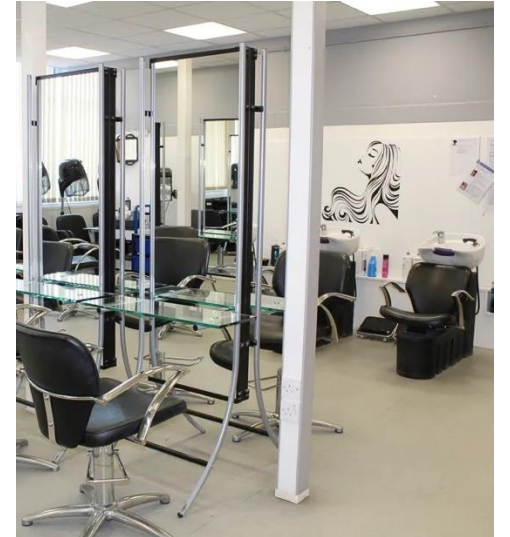


Food, Drink and Breaks

- All students attending UCC for a full day will have time to have lunch and there will be plenty of opportunities for breaks during the day.
- We encourage you to relax and use the UCC student lounge in HE05 where there is a kitchen with a microwave and fridge that you're welcome to use too.
- You're welcome bring your own food and drink to UCC, or purchase it using a **cashless method**, in our many refectories.
- Please refer to your course leaders and lecturers about eating and drinking in classrooms.
- There is a dedicated smoking and vaping area by the entrance of the student car park (Eastgate entrance).



Facilities on Campus



Further details about all the student facilities that we have on offer, including opening hours can be found [here](#).

Part 5: Support, Wellbeing and Keeping Safe



Safeguarding, Safety and Welfare

The College is committed to keeping you safe but, in addition, you must take responsibility for your own safety and welfare by:

- Following all rules and instructions at College.
- Behaving sensibly and not putting yourself or others at risk.
- Reporting anything that you think is unsafe, unusual or which worries you.

This presentation explains more, but remember we are here to support you and keep you safe.

Report all concerns to a member of staff, reception or call the Safeguarding team on 01206 712828 (See the back of your ID card)

If you are concerned for your safety off campus, or in an emergency phone 999.



ID and Site Security

Everybody on site should be wearing a Colchester Institute lanyard with an ID badge

- All visitors must sign in at reception and be wearing visitor's ID.
- You **will** be challenged if you aren't wearing your lanyard and ID
- You must not bring friends or family to meet you on the College campus if they aren't students, even if they used to be!
- We all have a responsibility to raise our concerns if we see people on-site who are not wearing ID and look like they shouldn't be here.



 **Transforming Lives**



Report Unusual / Worrying Behaviour

If you see something on site which is unusual, suspicious or makes you feel uncomfortable, you must report it to Reception, a member of staff or call the Safeguarding team on 01206 712828 (on the back of your ID card).

Suspicious or unusual behaviour could include someone:

- Filming or noting down observations
- Loitering in one place for a long time
- Using, supplying or under the influence of drugs or alcohol
- On campus without an ID badge
- With a disguised appearance (e.g. bike helmet or tightly tied hood), or
- Fighting or displaying threatening / aggressive behaviour

 **Transforming Lives**



Run, Hide and Tell – Government advice



IN THE RARE EVENT OF
a firearms or weapons attack

RUN HIDE TELL



RUN to a place of safety. This is a far better option than to surrender or negotiate. If there's nowhere to go, then...

HIDE. It's better to hide than to confront. Remember to turn your phone to silent and turn off vibrate. Barricade yourself in if you can. Then finally and only when it is safe to do so...

TELL the police by calling 999.

RUN to a place of safety. If there's nowhere to go then....

HIDE – It's better to hide than to confront. Remember to:

- Turn your phone to silent and turn off vibrate
- Barricade yourself in, if you can
- Then only when it is safe to do so....

TELL the police by calling 999



Safeguarding

We have a duty of care to protect our students. Types of harm and abuse that might affect you or other students include:

Bullying, harassment or discrimination	Gangs/County lines	Radicalisation
Online safety	Neglect	Risky Behaviour
Peer on Peer Abuse including sexual abuse, sexual harassment or violence	Mental Health concerns	Sexual Abuse including grooming and exploitation
	Physical Abuse	



If you observe something that concerns you, or you are at risk, please phone Safeguarding on 01206 712828
(on back of your ID Badge)

Bullying and Harassment

The College has a **zero-tolerance** policy regarding bullying and harassment, including sexual harassment.

- It is not acceptable for anyone to feel bullied or harassed by actions which take place verbally, physically or online. This also includes any type of sexual harassment such as unwanted comments, whistling, physical touching or contact and sharing of indecent images or videos.
- Even if someone thinks that making a sexual comment is a joke, it is not acceptable and the impact on others can often be distressing.
- It is important that any bullying or harassment or sexual harassment is reported to staff so we can follow it up and take action where needed.



 Transforming Lives

Sexual Abuse and Violence

The College also has zero tolerance policy to any form of sexual abuse or sexual violence, on or off campus.

It is important that if you have any concerns about unacceptable behaviour, comments or actions you **must report** it to the welfare and safeguarding team in person or by calling on 01206 712828 (this number is on the back of your ID card)

We have a duty of care to all students, staff and visitors and we will take any reports received seriously. We will follow them up in accordance with College policies and procedures, and if appropriate the Police or other agencies.

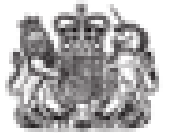


 Transforming Lives

Prevent

What is Prevent?

Prevent is the name of the Government's strategy to stop people from being drawn into extremist behaviour and terrorism (Preventing people from being radicalised)



Prevent Strategy

Our college, as a wider institution has a duty to act to Prevent people being drawn into extremism and terrorism and to promote British Values. Local threats include county lines, knife crime and gangs.

If you have concerns that you or someone you know is being radicalised or exploited then it is important you share your concerns. You can share your concerns with the Safeguarding Team at College, **01206 718282** or talk to your Course Leader who will support you to access the Safeguarding Team.

First Aid and Accidents

There are always first aiders on duty when the College is open.

If you hurt yourself, have an accident or if you are ill, please tell a member of staff who will contact a First Aider.

If you have an accident that is not reported to a first aider please tell a member of staff, so that it can be properly reported.

Also let us know if an accident, or near-miss incident, happens on your way to or from the College if it will affect you when you are here.



 Transforming Lives

If the Fire Alarm Sounds

There is an evacuation notice in all rooms showing the assembly points in case of an evacuation. Please read these carefully for each building you use in College.

If you hear a continuous alarm in the building you are in, you must leave quickly and calmly.

The main priorities are:

- To get away from the building to your assembly point; Fire Marshals will be on hand to assist.
- To keep access to the buildings clear for fire engines – **So don't stand in the road.**
- **Keep moving** once you've left the building, there will be a lot of people behind you!
- We have Evacuation Practices frequently. It is important to always take it seriously when the fire alarm sounds.



Duty of Care – to yourself

On many courses there are particular health and safety rules that you will need to be aware of.

Your teachers will ensure that you know these.

But for all students, it is important to remember that it is your responsibility to:

- Follow all the rules and instructions about keeping yourself and others safe.
- Wear all protective clothing and equipment that is required.
- Be aware of your surroundings and alert to any hazards.
- Act responsibly at all times with consideration for your safety and those around you.



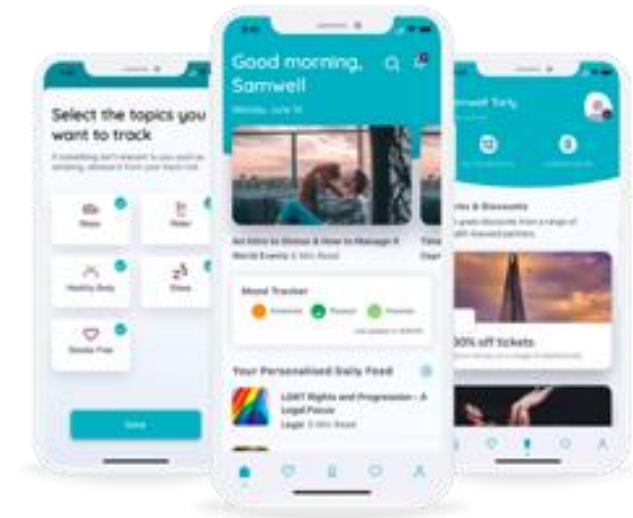
Student Welfare

- We understand that sometimes things can feel very difficult and overwhelming. Whilst your first port of call will likely be your Course Leader or Pastoral Leader, UCC has teamed up with **Health Assured** to provide all UCC students access to the Student Assistance Programme (SAP). The confidential programme is designed to help students deal with personal or student related problems such as:
 - **Life support**
 - **Legal information**
 - **Bereavement support**
 - **Medical information**



Student Welfare

- You can access the service via:
 - Freephone 0800 028 3766, please state you are a UCC student.
 - My Healthy Advantage smartphone app. To access the app you will need the code: MHA198066
 - The Health Assured Wellbeing Portal which can be accessed [here](#)
 - Username: wellbeing
 - Password: HoldTramPlan
- Further details can be accessed from the UCC Academic Services Moodle page found [here](#).



Student Welfare

Further mental health support can also be found here on the College website:

www.colchester.ac.uk/emotional-wellbeing-support/

Learning Support & Reasonable Adjustments

"University Centre Colchester aims to ensure that all students achieve their full academic potential, and that no student is disadvantaged because of a disability in their admission to, and participation in, the learning environment of the institution and in demonstrating that they have achieved the learning outcomes of their programme of study" (UCC, 2023).

You will have been asked to notify UCC if you require reasonable adjustments for disabilities or additional specific learning difficulties (SpLD) in your initial application.

The earlier we know about your specific needs, the earlier we can get support in place. If you still need to inform us, please complete the relevant forms below:

- [UCC Learning Difficulty questionnaire](#)
- [UCC Medical Condition questionnaire](#)

Learning Support & Reasonable Adjustments

- **The UCC Accessibility Officer can assist all UCC students who have disclosed either a Specific Learning Difficulty or Medical Condition and inform you of the support that you might be entitled to either as Reasonable Adjustments or as support from the Disabled Students Allowance (DSA).**
- The Accessibility Officer can also support students through the DSA application process and assist in the creation of individual Medical Plans and Personal Emergency Evacuation Plans where required.
- You can contact the Accessibility Officer who is based in UCC Academic Services in room HE103, or on 01206 712613, or emailing uccsupport@colchester.ac.uk
- Further details can be found in the [UCC Code of Practice on Learning Support and Reasonable Adjustment](#).

Learning Support & Reasonable Adjustments

- If you suspect you may have dyslexia but have not been formally diagnosed, UCC offers support to those who wish to investigate or gain a formal diagnosis for dyslexia.
- Please contact the Accessibility Officer in UCC Academic Services or refer to the Reasonable Adjustment section of the [UCC Academic Services Moodle](#) page.

Part 6: Professional Standards and Expectations

College Wide Professional Expectations

- [Dress Code](#)
- Lanyards must be worn at all times (unless Health and Safety dictates otherwise). This is to ensure that we know who is on campus and that they should be on campus and to keep everyone safe.
- Smoking and vaping should be in the dedicated areas only.



Working Together on Your Course

- We want everyone to enjoy their time at UCC and succeed; agreeing a class contract can make that happen.
- However, now is the time for us to discuss how we can make this happen for this course together...



Student Representatives



- Student reps are vital in enhancing the student experience and we welcome nominations from your cohort to represent your fellow peers. This is an opportunity to not only share what is brilliant about your course and UCC, but also an opportunity to make positive changes too.
- In the next few weeks, you will be asked to nominate a class rep who is able to attend a couple of meetings per semester and work with our Student Engagement Officer. This is a fantastic opportunity to share on your CV!

Part 7: IT and Learning Technologies

Please refer to separate presentation.

Part 7: Placements

Part 8: Apprenticeships

Please refer to separate presentation

Part 9: Next Steps

Phase 1: Almost Complete

- Congratulations, you have almost completed Phase 1 of your induction. All the resources used today can be found [here](#) on the Induction Moodle Page, or via the QR code here.



Phase 1: To Do

- You now need to:
 - Complete the Phase 1 and IT and Learning Technologies checklists.
 - These can be found [here](#) on the Induction Moodle page or via the QR code opposite. You will have covered most of this today, however, this will act as a reminder of important actions you may still need to undertake.



Phase 2: Essential Activity Completion

- Over the next 3 weeks (5 if part time or apprentice) you will complete the activities on Moodle. These are fundamental to future success as a student at UCC. These include:
 - Library 1 visit.
 - Independent eLearning: Note taking, Introduction to Academic Reading and Time Management.
- These can be found [here](#) on Moodle or via the QR code opposite. Don't forget to use the Phase 2 checklist to guide you on what to do.



Phase 2: Optional Activities

Drop-in Support

- Attend 'drop in' support sessions with Eliza Bebb on campus room HE105 if you need general support:
 - Monday 23rd September, 12-1pm, Room HE105
 - Tuesday 24th September, 1-2pm, Room HE105
 - Wednesday 25th September, 12-1pm, Room HE105
 - Thursday 26th September, 1-2pm, Room HE105.

Phase 3: Essential Activity Completion

- To extend your learning and develop your academic skills you will continue to undertake additional learning activities over the semester. Again, these are fundamental to your success as a student at UCC.
- Activities include:
 - Additional library workshops to develop your research skills.
 - Attend session on using ATS2 to submit assignments.
 - Completing Academic Integrity and Referencing eLearning.
- Details of the activities to be completed and associated checklists can be found [here](#) or via the QR code opposite.



Phase 3 & Beyond: Academic Skills Development

- As your studies progress, you will start to want to develop new academic skills to further your learning and future success.
- **When you are ready and it's the right time**, take time to review and complete our eLearning courses and access academic learning resources which can be found in the [Academic Skills Centre](#).



University Centre Colchester
Academic Skills Centre





Thank you and
enjoy your journey
at University
Centre Colchester.