

Programme Specification

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Please check the Programme Directory for the most up to date version:

[UG Programme Directory](#)

[PG Programme Directory](#)

Section 1 – Regulatory Details			
1.1	Awarding body	Wrexham University	
1.2	Teaching institution	Coleg Cambria	
1.3	Final award and programme title (Welsh and English)	HNC Technoleg Fecanyddol HNC Mechanical Technology	
1.4	Exit awards and titles	N/A	
1.5	Credit requirements	HNC: 150 credits in total including 120 credits at level 4 and 30 credits at level 5	
1.6	Intake points	Once yearly, September	
1.7	Mode of study	Part time	
1.8	Length of delivery	2 Years	
1.9	Location of delivery	Coleg Cambria – Deeside Campus	
1.10	Mode of delivery	Part time	In person
1.11	Language of delivery	English	
1.12	Faculty	Faculty of Arts, Computing and Engineering (FACE)	
1.13	Subject area	Engineering	
1.14	HECoS Code	HNC Mechanical Engineering 100190	
1.15	Suitable for applicants requiring a Student Visa?	Part time	In person No
1.16	Is DBS check required on entry?	No	

Section 1 – Regulatory Details		
1.17	Professional, Statutory or Regulatory Body (PSRB) accreditation	N/A
1.18	Welsh Medium Provision	The programmes will be delivered through the medium of English. Students have the option to submit assessments in the medium of Welsh.
1.19	External reference points	QAA Subject Benchmark Statement Engineering (2023) QAA Characteristics Statements Higher Education Credit Framework CQFW
1.20	Derogation to Academic Regulations	N/A
1.21	Foundation Year route	No
1.22	Placement / Work based learning	Work based learning is embedded within the programme, which must be completed to pass the modules.
1.23	Length and level of the placement	N/A
1.24	Collaborative arrangement	Coleg Cambria – Deeside Campus

Section 2 – Programme Details	
2.1 Aims of The Programme	
The HNC Mechanical Technology programme is designed to develop the technical knowledge, analytical capability, and professional skills of individuals working or aspiring to work within the mechanical and manufacturing engineering sectors. Delivered over two years on a part-time, day-release basis, the programme integrates academic study with work-based learning to provide a solid foundation in the principles and practices of modern mechanical engineering. Assessment throughout the programme is based on applied coursework, portfolios, design projects, and work-related tasks that mirror the expectations and problem-solving requirements of the modern engineering environment. This practical, industry-relevant approach ensures that learners develop both competence and confidence in their technical and professional abilities. The programme learning outcomes are aligned with the Accreditation of Higher Education Programmes (AHEP) framework, supporting those who may wish to progress to higher-level qualifications, such as direct entry onto the BEng (Hons) Industrial Engineering (Mechanical) degree at Wrexham University. This provides a clear progression route for individuals seeking to advance from technician to professional engineer while continuing to contribute effectively within the engineering workforce.	

2.2 Programme Structure and Diagram, Including Delivery Schedule

In Year 1, learners establish a strong grounding in core engineering disciplines through modules such as Engineering Mathematics, Mechanical Science, Engineering Design, and Engineering Materials. Technical and digital competencies are built through Engineering Computer Applications and Plant Equipment Fundamentals, ensuring that learners gain both practical workshop experience and familiarity with computer-aided tools and simulation software used in industry.

In Year 2, the focus shifts to the application and advancement of these skills through modules including Manufacturing Technology, CAD/CAM, and Business & Management Techniques. The programme culminates in an individual Project in which learners apply their accumulated knowledge to a real-world engineering problem within their workplace, demonstrating their ability to plan, implement, and evaluate a practical engineering solution aligned to industrial needs.

Part-time Programme Structure

Level	Module Code	Module Title	Credit Value	Core/Option	Semester of delivery	Year of Study
L4	ENG427	Engineering Mathematics	20	Core	1 & 2	Yr.1
L4	ENG428	Mechanical Science	20	Core	1 & 2	Yr.1
L4	ENG4AR	Engineering Computer Applications	20	Core	1 & 2	Yr.1
L4	ENG4AS	Engineering Materials	10	Core	1	Yr.1
L4	ENG430	Engineering Design	10	Core	2	Yr.1
L4	ENG426	Business & Management Techniques	20	Core	1 & 2	Yr.2
L4	ENG436	CAD CAM	20	Core	1 & 2	Yr.2
L5	ENG503	Project	20	Core	1 & 2	Yr.2
L5	ENG506	Mechanical Principles	10	Core	1 & 2	Yr.2

2.3 Programme Learning Outcomes

No.	Learning Outcome	K	I	S	P	HNC (L4)	HNC (L5)
1	Apply knowledge of mathematics, statistics, natural science and engineering principles to broadly-defined problems within mechanical engineering.	☒	☐	☐	☐	☒	☐
2	Analyse broadly-defined mechanical engineering problems reaching substantiated conclusions.	☒	☐	☐	☐	☒	☐
3	Use appropriate computational and analytical techniques to model broadly-defined mechanical engineering problems.	☒	☐	☐	☐	☒	☐
4	Select and use technical literature and other sources of information to address broadly-defined mechanical engineering problems.	☒	☐	☐	☐	☒	☐
5	Apply a systematic approach to the solution of broadly-defined mechanical engineering problems.	☐	☒	☐	☐	☒	☐
6	Identify, evaluate and mitigate risks (the effects of uncertainty) associated with a particular project or activity.	☐	☒	☐	☐	☐	☒
7	Use practical laboratory and workshop skills to investigate broadly-defined problems.	☐	☐	☒	☐	☒	☐
8	Select and apply appropriate materials, equipment, engineering technologies and processes.	☐	☐	☒	☐	☒	☐
9	Communicate effectively with technical and non-technical audiences.	☐	☐	☐	☒	☐	☒
10	Apply knowledge of engineering management principles, commercial context and project management.	☐	☐	☐	☒	☒	☐
11	Plan, conduct and report on an original programme of work (Project)	☒	☒	☒	☒	☐	☒

Note: K- Knowledge and understanding; I-Intellectual Skills; S-Subject Skills; P-Practical, professional and employability skills

2.4 Learning and Teaching Strategy

The learning and teaching strategy aligns with WU's Active Learning Framework (ALF) incorporating key employability skills. It is flexible, engaging, and responsive to student diversity and professional demands. A blended approach combines on-campus sessions with virtual study activities.

Virtual Learning

Delivered through the VLE and Microsoft Teams, virtual learning includes asynchronous tasks (videos, quizzes, readings, virtual visits) and synchronous activities (discussions, case studies, simulations). Sessions will be recorded where appropriate.

Tutorials

Delivered both in person and online, tutorials promote active participation through individual and group engagement. They are designed to encourage critical thinking, reflective practice, and student-led learning, supporting creativity, independence, and a deeper understanding of subject knowledge and professional practice.

2.5 Assessment Strategy

The assessment strategies are designed to be supportive and to build confidence, whilst also ensuring that students engage with core material, develop the fundamental knowledge and subject skills required for progression of undergraduate studies, and reward and incentivise students.

Assessment tasks are varied to facilitate students to evidence their learning and include portfolio, presentations, practical and oral assessment which promote authentic assessment and encourage the deeper learning that is a key feature of higher education. Formative feedback opportunities are embedded into each of the modules regularly and encourages students to reflect on their progress.

Feedback is provided within 15 working days of the assessment submission date and may be delivered individually or in groups, in written, verbal, or recorded formats. This ensures that students receive timely, constructive, and developmental guidance to support continuous learning and improvement.

Disclaimer

Throughout quality assurance processes we have ensured that this programme engages with and is aligned to:

- [Academic Regulations](#)
- [The University Skills Framework](#)
- [Welsh Language Policy](#)
- [Equality and Diversity Policy](#)
- [The Student Union offers support for students](#)

Section 3 – Programme set up (office use only)		
3.1	Framework	FRAME041_SEP
3.2	Cost centre	GAME
3.3	Course type (HESA)	N/A
3.4	Fee model	Standard full time UG
3.5	Are any modules taught over either multiple periods or across the HESA year (defined as running 1st August - 31st July)	Yes
3.6	Student funding model	SLC/Self-Financed
3.7	Mode of Attendance (Funding)	In person attendance
3.8	Does the Suitability for Practice Procedure apply to the programme?	No
3.9	Programme Leader	Ethan Edwards
3.10	Date of Approval	30/06/2026
3.11	Date and type of Revision	