

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	Wrexham Plas Coch Campus	
1.3	Final award and programme title (Welsh and English)	BEng (Anrh) Peirianeg Ynni Adnewyddadwy (Atodol gyda Chyn-Faglor) BEng (Hons) Renewable Energy Engineering (Top Up with Pre-Bachelor’s)	
1.4	Exit awards and titles	N/A	
1.5	Credit requirements	BEng (Hons) Degree – 180 credits, (120 credits gained at level 6, 60 credits at level 5)	
1.6	Intake points	August	
1.7	Mode of study	Full time	
1.8	Length of delivery	1 Year	
1.9	Location of delivery	Campus based (Wrexham)	
1.10	Mode of delivery	Full 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	BEng (Hons) Renewable Energy Engineering 100180	
1.15	Suitable for applicants requiring a Student Visa?	Full time	In person Yes
1.16	Is DBS check required on entry?	No	

Section 1 – Regulatory Details			
1.17	Professional, Statutory or Regulatory Body (PSRB) accreditation	The engineering programmes have been developed in line with PSRB requirements, including IMechE, IET, & RAeS. However, this programme will not be seeking accreditation This information is correct at the time of validation, please refer to the PSRB register for current accreditation status.	
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. To support Welsh Medium development, the programme includes a 20-credit Welsh for STEM module available as a short course for all engineering students.	
1.19	External reference points	QAA Subject Benchmark Statement Engineering (2023) QAA Characteristics Statements Higher Education Credit Framework CQFW PSRB Accreditation Guidelines	
1.20	Derogation to Academic Regulations	Regulation Clause(s) affected	Derogation Summary
		UG-D3	Each element of assessment (where there is more than one assessment) requires a minimum mark of 10% below the pass mark (30% for L6).
		E10.4, UG-E5.1	No compensation allowed for L6 modules.
1.21	Foundation Year route	No	
1.22	Placement / Work based learning	Optional Work Placement – placements embedded within the programme, which must be completed to pass the module or programme. These may range from one day to a week or a few months and can be delivered as day release or in blocks.	
1.23	Length and level of the placement	The placement will last up to 12 weeks in SEM-2 of the academic calendar through the delivery of ENG6E3 Professional Practice.	
1.24	Collaborative arrangement	N/A	

Section 2 – Programme Details

2.1 Aims of The Programme

The programme is designed to equip students with advanced technical knowledge and professional skills that are aligned with industry demands. It aims to deepen their understanding of core engineering concepts, such as design, analysis, and problem-solving, preparing them for leadership roles in their respective fields.

The programme has been developed to support international students and learners from diverse educational backgrounds by providing additional academic preparation before and alongside their final year studies. The programme is designed for students holding a Staatlich geprüfter Techniker (State Certified Technician) qualification, which has been mapped as equivalent to 180 UK credits (90 ECTS) and forms the minimum entry requirement.

This integrated approach provides a coherent academic pathway across Levels 5 and 6 while reducing reliance on Recognition of Prior Learning (RPL). It also supports international qualification recognition, particularly within Europe, where qualifications containing more than 50% RPL are not widely recognised. By combining recognised prior learning with additional study completed at Wrexham University, the programme enhances students' academic development while meeting both UK and European recognition expectations.

2.2 Programme Structure and Diagram, Including Delivery Schedule

Students will complete an additional 60 credits at Level 5, with 20 credits studied prior to the start of the Level 6 curriculum and the remaining 40 credits delivered concurrently with Level 6 modules. This structure strengthens subject knowledge and supports a smooth transition into honours-level study.

Full-time Programme Structure

Level	Module Code	Module Title	Credit Value	Core/ Option	Delivery (i.e. semester 1,2)	Year of Study
L5	ENG5C5	Renewable Energy System Design	20	Core	3	Yr.1
L6	ENG6C8	Energy Modelling & Simulation	20	Core	1	Yr.2
L6	ENG6D8	Smart Grids and Distributed Generation	20	Core	1	Yr.2
L6	ENG6D9	Hydrogen and Emerging Energy Technologies	20	Core	1	Yr.2
L6	ENG6E3	Professional Practice	20	Core	2	Yr.2
L5	ENG5D8	Engineering Design Project	40	Core	1 & 2	Yr.2
L6	ENG6E4	Project	40	Core	1 & 2	Yr.2

2.3 Programme Learning Outcomes

The following programme learning outcomes have been fully mapped against the AHEP-4 learning outcomes.

No.	Learning Outcome	K	I	S	P	Cert He (L4)	Dip He (L5)	Honours (L6)	Optional Ref (PSRB standards)
1	Function effectively as an individual, and as a member or leader of a team.	☐	☐	☐	☒	☐	☒	☐	
2	Apply knowledge of mathematics, statistics, natural science and engineering principles to broadly-defined problems. Some of the knowledge will be informed by current developments in the subject of study.	☒	☐	☐	☐	☐	☐	☒	B1
3	Analyse broadly-defined problems reaching substantiated conclusions using first principles of mathematics, statistics, natural science and engineering principles.	☒	☐	☐	☐	☐	☐	☒	B2
4	Select and apply appropriate computational and analytical techniques to model broadly-defined problems, recognising the limitations of the techniques employed.	☒	☐	☐	☐	☐	☐	☒	B3
5	Select and evaluate technical literature and other sources of information to address broadly-defined problems.	☒	☐	☐	☐	☐	☐	☒	B4
6	Design solutions for broadly-defined problems that meet a combination of societal, user, business and customer needs as appropriate. This will involve consideration of applicable health & safety, diversity, inclusion, cultural, societal, environmental and commercial matters, codes of practice and industry standards.	☐	☒	☐	☐	☐	☐	☒	B5
7	Apply an integrated or systems approach to the solution of broadly-defined problems.	☐	☒	☐	☐	☐	☐	☒	B6

No.	Learning Outcome	K	I	S	P	Cert He (L4)	Dip He (L5)	Honours (L6)	Optional Ref (PSRB standards)
8	Identify and analyse ethical concerns and make reasoned ethical choices informed by professional codes of conduct.	☐	☒	☐	☐	☐	☐	☒	B8
9	Use a risk management process to identify, evaluate and mitigate risks (the effects of uncertainty) associated with a particular project or activity.	☐	☒	☐	☐	☐	☐	☒	B9
10	Apply knowledge of engineering management principles, commercial context, project management and relevant legal matters.	☐	☐	☐	☒	☐	☐	☒	B15
11	Plan, conduct and report on an original programme of work (Dissertation).	☒	☒	☒	☒	☐	☐	☒	-

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.

Face-to-Face Learning

Students will engage in lectures, seminars, and workshops in various settings, incorporating case studies and problem-based learning. The programme is mapped to instructional models that increase laboratory-based learning, critical for reinforcing theoretical knowledge through practical application:

Model A: 100% Classroom

Model B: 50% Classroom / 50% Laboratory

Model C: 25% Classroom / 75% Laboratory

Model D: 100% Laboratory

These models promote deeper learning, research capability, and technical proficiency. Laboratory hours have been increased to allow students to apply classroom-acquired theory, reinforcing understanding and preparing them for future innovation in industry or postgraduate research.

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 core 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 assessment 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	FRAME028_AUG
3.2	Cost centre	GAME
3.3	Course type (HESA)	N/A
3.4	Fee model	Other (Exceptional Fee as specified on website)
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	Olivier Durieux
3.10	Date of Approval	24/07/2026
3.11	Date and type of Revision	