

Prifysgol Wreccsam Wrexham University

Module specification

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Module Code	LAN474
Module Title	English for STEM
Level	4
Credit value	20
Faculty	FSLS
HECoS Code	101109
Cost Code	GASL
Pre-requisite module	N/A

Programmes in which module to be offered

Programme title	Core/Optional/Standalone
BEng (Hons) Aerospace Engineering (Top Up with Pre-Bachelor's)	Standalone
BEng (Hons) Electrical Engineering (Top Up with Pre-Bachelor's)	
BEng (Hons) Industrial Engineering (Mechatronics) (Top Up with Pre-Bachelor's)	
BEng (Hons) Mechanical Engineering (Top Up with Pre-Bachelor's)	
BEng (Hons) Motorsport Engineering (Top Up with Pre-Bachelor's)	
BEng (Hons) Renewable Energy Engineering (Top Up with Pre-Bachelor's)	
BSc (Hons) Computer Science (Top Up with Pre-Bachelor's)	
BSc (Hons) Cyber Security (Top Up with Pre-Bachelor's)	

Breakdown of module hours

Learning and teaching hours	40 hrs
Placement tutor support hours	0 hrs
Supervised learning hours e.g. practical classes, workshops	0 hrs
Project supervision hours	0 hrs
Active learning and teaching hours total	40 hrs
Placement hours	0 hrs
Guided independent study hours	160 hrs
Module duration (Total hours)	200 hrs

Module aims

This module is designed to address the language needs of learners studying or working in the STEM field whose first language is not English. It will focus on developing both productive and receptive language skills to enable participants to engage more effectively in processing, creating, analysing and sharing scientific information within the STEM community. There will also be a strong emphasis on expanding participants' mental lexicon of core STEM vocabulary through exercises and activities aimed at increasing retention and recall. Selected grammar topics covering but not limited to B2 level will be revised/introduced in context. Participants will be exposed to real-world but level-appropriate source materials such as STEM lectures and talks, newspaper and magazine articles, documentaries, programmes, and films. Literature on the STEM landscape in the UK and STEM research at Wrexham will also be included. Successful completion of the course should prepare students for further formal English language testing and should mean their ability increases by around 0.5 on the IELTS test score; the module itself is not proof of achievement on the CEFR. In addition, the final assessment for this module is not on the UKVI's list of Secure English Language Tests so it cannot be used for immigration purposes.

Module Learning Outcomes

At the end of this module, students will be able to:

1	Demonstrate B2 level reading and writing skills in the context of written STEM communication.
2	Demonstrate B2 level speaking and listening skills in the context of spoken STEM communication.
3	Apply strategies to learn, recall and use core STEM vocabulary in spoken and written communication.

Assessment

Indicative Assessment Tasks:

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Assessment 1:

The in-class test will assess all four skills (reading, writing, speaking and listening) through tasks that match those participants will become familiar with over the course of the module.

Assessment number	Learning Outcomes to be met	Type of assessment	Duration/Word Count	Weighting (%)	Alternative assessment, if applicable
1	1,2,3,	In-class test	2 hours	100	N/A

Derogations

N/A

Learning and Teaching Strategies

The module will be delivered through lectures and computer lab sessions. The principles of Scaffolding Learning will be applied to ensure that participants are able to apply reading, writing, speaking and listening strategies developed during supervised learning to autonomous, unsupervised contexts, thus giving them greater confidence in dealing with similar language demands in the future. Participants will also be introduced to techniques to help them broaden their mental lexicon in terms of learning, retaining, recalling and using core STEM vocabulary effectively.

Authentic but level-appropriate source materials and related activities will be included in the teaching materials. These will cover newspaper/magazine articles, documentaries, and STEM lectures and talks, as well as literature on the STEM landscape in the UK and STEM research at Wrexham. Pair and small-group work will be emphasised in order to foster teamwork and develop interpersonal skills. During their private study time, participants will have access to lecture notes, supplementary materials and quiz activities on Moodle to support technology-enhanced independent learning.

Welsh Elements

Students are entitled to submit assessments in the medium of Welsh. Where appropriate, teaching materials will reference STEM research in Wales.

Indicative Syllabus Outline

- Writing skills: sentence construction, clause structure, paragraph construction, cohesion, coherence, linking words/transition phrases
- Reading skills: skimming, scanning, identifying textual patterns
- Listening skills: listening for gist/specific details, note-taking
- Speaking skills: conversation skills, pronunciation
- Vocabulary skills: core STEM vocabulary, verb patterns, word formation, common collocations
- Grammar: modality (tense and aspect), word order, noun phrase features, verb phrase features, modifying phrase features
- STEM genres: extended definitions, process descriptions, problem-solution structures, compare-contrast structures, data commentaries
- Themed units on STEM research and other STEM topics

Indicative Bibliography

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads:

McCarthy, M. and O'Dell, F. (2008), *Academic Vocabulary in Use with Answers*, Cambridge: Cambridge University Press.

Other indicative reading:

Bailey, S. (2025), *Academic Writing: A Handbook for International Students*, 6th edn, London: Routledge.

McCarthy, M. and O'Dell, F. (2017), *English Vocabulary in Use: Upper-Intermediate*, 4th edn, Cambridge: Cambridge University Press.

Murphy, R. (2019), *English Grammar in Use: A Self-study Reference and Practice Book for Intermediate Learners of English*, 5th edn, Cambridge: Cambridge University Press.

Oshima, A. and Hogue, A. (2020), *Longman Academic Writing Series 4: Essays*, 5th edn, Harlow: Pearson Education.

Pun, J. (2026), *English for Science Communication*, Abingdon: Routledge.

Administrative Information

For office use only	
Initial approval date	July 2017
With effect from date	
Date and details of revision	05.08.2026: CMAP approval of revised module specification including updates to module aims and learning outcomes.
Version number	2