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Refer to guidance notes for completion of each section of the specification.

Module Code:	ENG4AB

Module Title:	Confident Numeracy

Level:	4	Credit Value:	20

Cost Centre(s):	GAME	<u>JACS3</u> **code**: <u>HECoS</u> code:	X342 100461

Faculty	FAST	Module Leader:	Colin Heron

Scheduled learning and teaching hours	36 hrs
Placement tutor support	0hrs
Supervised learning eg practical classes, workshops	0 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total contact hours	**164** hrs
Placement / work based learning	**0**
Guided independent study	0 hrs
Module duration (total hours)	200 hrs

Programme(s) in which to be offered (not including exit awards)	Core	Option
Stand alone module aligned to BEng (Hons) Electrical and Electronic Engineering for QA and assessment	☐	✓

Pre-requisites

Module Aims

- To prepare students for subjects with mathematical content at level 4 in HE
- To build confidence in using mathematics to solve problems
- To support the development of understanding in key mathematical skills
- To support understanding and develop applied problem solving

Module Learning Outcomes - at the end of this module, students will be able to	
1	Identify basic numeracy terms and expressions
2	Demonstrate how to manipulate a range of appropriate numerical data
3	Apply appropriate methods to solving numerical problems
4	Present calculations and equations in an appropriate manner for higher education

Employability Skills The Wrexham Glyndŵr Graduate	I = included in module content A = included in module assessment N/A = not applicable
Guidance: complete the matrix to indicate which of the following are included in the module content and/or assessment in alignment with the matrix provided in the programme specification.	
CORE ATTRIBUTES	
Engaged	A
Creative	A
Enterprising	N/A
Ethical	N/A
KEY ATTITUDES	
Commitment	I
Curiosity	I
Resilient	A
Confidence	IA
Adaptability	IA
PRACTICAL SKILLSETS	
Digital fluency	A
Organisation	IA
Leadership and team working	N/A
Critical thinking	IA
Emotional intelligence	N/A
Communication	A

Derogations
None

Assessment:
Indicative Assessment Tasks:
The assessment for this module will be delivered in two parts;

- Assessment 1: A short online quiz conducted early in the module to assess current capability (10%)
- Assessment 2: Portfolio - The student will build a portfolio of materials that demonstrate the learning outcomes (90%)

In order to build the students' confidence in the assessment process, there will be formative activities/assessments throughout the delivery of the module.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1	Online Quiz	10%
2	2,3,4	Portfolio	90%

Learning and Teaching Strategies:
The module will be delivered through a combination of formal lectures, tutorials, practical demonstrations and student workshops. All of the material delivered formally will be available through MOODLE. Please note: The student will be expected to have a device capable of Scientific Calculations for the lecture series (Calculator or phone with relevant App).

Syllabus outline:

This is the indicative syllabus outline for this module;
- Basic arithmetic operations
- Calculators (*How to use*)
- Factors and prime numbers
- Powers
- Exponentials and Logarithms
- Ratios and percentages
- Fractions
- Statistics
- Graphs
- Algebra
- Trigonometry

Indicative Bibliography:
Essential reading
Stroud, K.A, Booth, D.J (2009), *Foundation Mathematics.* First Edition. Basingstoke: Palgrave MacMillan Olive, J (2003) *Maths: A Student's Survival Guide: A Self-help Workbook for Science and Engineering Students.* Second Edition. Cambridge: Cambridge University Press Hurst, E (2009) Bridging the Gap to University Mathematics. London: Springer
Other indicative reading
Internet resources will be provided via MOODLE throughout the module.