University of Plymouth

Faculty of Science and Engineering

School of Engineering

Programme Specification

BEng (Hons) Mechanical Engineering with Composites (3126)

BEng (Hons) Mechanical Engineering with Composites (Integrated) (4377)

September 2019

1. BEng (Honours) in Mechanical Engineering with Composites

Final award title: BEng (Hons) Mechanical Engineering with Composites

Level 4 Intermediate award title: Certificate of Higher Education (CertHE)
Level 5 Intermediate award title: Diploma of Higher Education (DipHE)

UCAS code: H302

JACS code: H300

2. Awarding Institution: University of Plymouth

Teaching institution: University of Plymouth

3. Accrediting bodies: IMechE*, IoM[3]

BEng (Hons) Accredited CEng (Partial)
This degree is accredited as:

- fully satisfying the educational base for an Incorporated Engineer (IEng).
- partially satisfying the educational base for a Chartered Engineer (CEng). A programme of accredited Further Learning will be required to complete the educational base for CEng.

Summary of specific conditions/regulations: **Subject to review**
*IMechE re-accreditation process is on-going and is expected to be completed in 2018/19.

4. Distinctive Features of the Programme and the Student Experience

The programme is designed to provide students with a sound appreciation of the fundamental principles of engineering and its importance for the economic well-being of the country. Students will also gain experience in coping with the interdisciplinary and uncertain nature of the engineering profession, and an understanding of the engineer's role and responsibility in society.

In addition to the generic skills listed in Section 8, graduates will have knowledge of the core disciplines appropriate to mechanical engineering, with additional specialised skills relating to the design and manufacture of composite materials and structures. They will be aware of the wide and growing range of industrial applications of composites, and of the particular economic and design-related challenges presented by these materials. Graduates from this programme are particularly employable in aerospace, renewable energy, motor sport and the materials supply sector. A total of 100 credits is devoted to materials/manufacturing

studies, and it is a condition of EAB accreditation that the student's stage 4 individual project is devoted to a materials topic.

- As well as a varied lecture programme, the students have regular laboratory experience, tutorials, seminars and group and individual projects.
- Regular feedback sessions ensure that their views are built into the design and delivery of the programmes. We encourage the interplay between mechanical engineering teaching and the research activities of our staff as one of our guiding principles.
- The students also benefit from academic and personal support and guidance throughtout the years. Personal development planning is integrated into the degree programmes through the tutor system and gives students time to plan and reflect on their learning and to apply it to personally relevant objectives and opportunities.
- Assessment involves a wide range of innovative coursework, including case studies, presentations and problem solving projects as well as traditional examinations.

5. Relevant QAA Subject Benchmark Group

The QAA Engineering Subject Benchmark Statement[1] defines the academic standard expected of graduates with an engineering degree. The defined learning outcomes are those published by the Engineering Council in the UK Standard for Professional Engineering Competence (UK-SPEC): The Accreditation of Higher Education Programmes[2].

6. Programme Structure

In line with CEP strategy, the modules are delivered in a sequential manner where possible. However, to improve student learning experience and to provide a more effective delivery mode for stage one modules, the immersive 'Skills for Design and Engineering' module in semester one and the 'Team Engineering (Engineering Design in Action)' module in semester two have been extended to semester long. These modules bring together students from the different engineering programmes to gain a basic understanding of design and CAD skills, and to apply problem-based learning, with a view to developing a more holistic understanding of their subject and how it sits within a wider context.

The following tables summarise the year-by-year content of the programme updated with the approved minor changes for 2018-2019 start:-

[1] http://www.qaa.ac.uk/en/Publications/Documents/SBS-engineering-15.pdf

[2] The Accreditation of Higher Education Programmes: Third edition

Stage 1 BEng – Mechanical Engineering with Composites

	Week	Module Code	Credits	Module Title	C/W (%)	P (%)	Exam (%)	Test (%)
Semester 1	**1-13**	**MECH120**	20	Skills for Design and Engineering (Mechanical)	50			50
		MATH189	20	Engineering Mathematics	50		50	
		MATS122	20	Manufacturing and Materials	50		50	
All year	**1-28**	**A5MFT1**	-	Mech BEng 1 MFT Session	A1 Assessment Pass/Fail			
Semester 2	**16-28**	**MECH121**	20	Team Engineering	100			
		MECH118	10	Basic Electrical Principles	100			
		THER104	10	Introduction to Thermal Principles	50		50	
		MECH117	20	Mechanics	50		50	
	20-28	**BPIE115**	-	Stage 1 Mechanical Placement Preparation				

Stage 2 BEng – Mechanical Engineering with Composites

	Week	Module Code	Credits	Module Title	C/W (%)	P (%)	Exam (%)	Test (%)
Semester 1	**1-13**	**BPIE215**	-	Stage 2 Mechanical Placement Preparation				
	1-13	**CONT221**	20	Engineering Mathematics and Control	30		70	
		HYFM230	10	Fluid Mechanics 1	30		70	
		STO208	10	Business for Engineers	100			
		STRC203	20	Engineering Structures	40		60	
Semester 2	**16-28**	**MECH232**	20	Engineering Design	60			40
		THER207	20	Applied Thermodynamics	50		50	
		MATS234	10	Materials	30		70	
		MFRG208	10	Quality Management 1	30		70	

Stage 3 – Work Experience (Optional Placement Year)

All Year	*BPIE335 Engineering Related Placement (Generic)* All students are encouraged to complete a minimum 48 week period of work experience. Students' progress is monitored by a visiting tutor, who will also assess the Professional Training Report at the end of the placement. Students who successfully complete a placement (including interim and final reports) to the satisfaction of their academic tutor and industry supervisor will have their degree endorsed as a 'sandwich' award, in recognition of their industrial experience. Placements are normally undertaken between Stages 2 and 4.

Stage 4 BEng – Mechanical Engineering with Composites

	Week	Module Code	Credits	Module Title	C/W (%)	P (%)	Exam (%)	Test (%)
Semester 1	**1-13**	**MATS347**	20	Composites Design and Manufacture	50		50	
		HYFM322	10	Computational Fluid Mechanics	100			
		MFRG311	10	Quality Management II	30		70	
Sem. 2	**16-28**	**MATS348**	20	Composites Engineering	100			
		MECH340	20	Engineering Design	85	15		
All Year	**1-28**	**PRME307**	40	Honours Project	100			

7. Programme Aims

The School of Engineering has adopted common aims for all engineering degree programmes:

- To be informative and challenging, and to establish a knowledge base suitable for a future career in engineering.
- To give students with a variety entry qualifications an opportunity to realise their potential.
- To enrich curriculum content and teaching quality through the professional and research expertise of staff, and through links with industry.

- To encourage and support students to develop and learn to apply technical and transferable skills that will facilitate life-long learning and continuing professional development.
- To produce graduates who can make a significant contribution to their professional field.

The programme aims to produce graduates that should be able to:

- Adopt an integrated approach to design, manufacturing, materials and engineering;
- Demonstrate appropriate knowledge of the scientific principles which underpin the practice of engineering;
- Apply analytical skills in applying the principles of engineering science to the solution of problems in the context of composite materials production, properties, design, manufacture and applications.
- Apply practical skills in engineering measurement and instrumentation;
- Use modern CAE tools;
- Specify processes and technologies used in engineering manufacture;
- Demonstrate an awareness of standards, codes of practice, risk assessment and reliability;
- Display an awareness of the engineer's role in business, and his/her responsibilities to society and the natural environment;
- Communicate effectively, clearly and concisely, by written, verbal and graphical techniques;
- Work effectively in a team;
- Display a creative approach to engineering design.

8. Programme Intended Learning Outcomes

The general and specific learning outcomes of the programmes are aligned with the EAB's UK-SPEC (Standards for Professional Engineering Competence [3,4]), which has been adopted as the QAA subject benchmark for engineering.

8.1 General Learning Outcomes

Knowledge and Understanding

KU1: Demonstrate knowledge and understanding of essential facts, concepts, theories and principles of their engineering discipline, and its underpinning science and mathematics.

KU2: Have an appreciation of the wider multidisciplinary engineering context and its underlying principles.

[3] Accreditation of HE Programmes (AHEP): Collated learning outcomes for six areas of learning

[4] http://www.engc.org.uk/standards-guidance/standards/uk-spec/

KU3: Appreciate the social, environmental, ethical, economic and commercial considerations affecting the exercise of their engineering judgement.

Intellectual Abilities

IA1: Apply appropriate quantitative science and engineering tools to the analysis of problems.
IA2: Demonstrate creative and innovative ability in the synthesis of solutions and in formulating designs.
IA3: Comprehend the broad picture and thus work with an appropriate level of detail.

Practical skills

PS1: Possess practical engineering skills acquired through, for example, work carried out in laboratories and workshops; in industry through supervised work experience; in individual and group project work; in design work; and in the development and use of computer software in design, analysis and control. Evidence of group working and of participation in a major project is expected. However, individual professional bodies may require particular approaches to this requirement.

General transferable skills

GT1: Develop transferable skills that will be of value in a wide range of situations. These are exemplified by the Qualifications and Curriculum Authority Higher Level Key Skills and include problem solving, communication, and working with others, as well as the effective use of general IT facilities and information retrieval skills. They also include planning self-learning and improving performance, as the foundation for lifelong learning/CPD.

8.2 Specific Learning Outcomes

SLO1: Graduates will demonstrate knowledge of the core disciplines appropriate to mechanical engineering, with additional skills relating to the design and manufacture of composite materials and structures.
SLO2: They will demonstrate an awareness of the growing range of industrial applications of composites, and design-related challenges presented by these materials.
SLO3: They will demonstrate aN understanding of composite materials through, for example, FEA of laminated composite structures using industry-standard pre- and postprocessing software.
SLO4: They will apply knowledge (e.g. lightweight composite manufacture and deployment, or advanced materials selection and specification) to a wider engineering project.

9. Admissions Criteria, including APCL, APEL and DAS arrangements

All applicants must have GCSE (or equivalent) Maths and English at Grade C or above.

Entry Requirements for BEng programmes	
A-level/AS-level	112-120 points. A typical offer is 120 points to include C @ Maths, C @ 2nd relevant subject in Science or Technology. Excluding General Studies.
BTEC National Diploma/QCF Extended Diploma	BTEC National Diploma/QCF Extended Diploma : DDD in a relevant science or Engineering subject. Must include Maths units. Candidates may be interviewed before an offer is made.
Access to Higher Education at level 3	Access to HE Diploma in a Science or Engineering. Pass Access in Engineering to include 45 credits at level 3. Must include 33 credits to include at least 12 credits at level 3 in Maths with Distinction and 12 credits at level 3 in a second relevant subject with Merit. Must have GCSE English and Maths grade C / 4 or above or equivalent (If a Mature candidate then lower grades requirements possible depending on experience as agreed by admissions tutor.)
Welsh Baccalaureate	120 points from Welsh Baccalaureate – accepted as additional points in addition to the two A-Levels described above
Scottish Qualifications Authority	300 points including grade C in a relevant subject at Advanced Higher Level (applied ICT; applied science; biology; chemistry; computing; DT (product design); DT (systems and control tech); DT (textiles tech); electronics; engineering; environmental science; maths/further maths; stats; physics; science; tech and design). Plus pass Higher level maths.
Irish Leaving Certificate	Grades required: BBBBB including mathematics and a science or technology subject at higher level plus Ordinary Level Grade C Maths and English.
International Baccalaureate	International Baccalaureate: 30 overall to include 5 at Higher Level Maths and 4 at Higher Level Sci/Tech subject. English and Mathematics must be included.
Progression from BEng (Hons) Mechanical Engineering with Foundation Year	Subject to students passing with an overall aggregate of 50% or above.
UPIC Integrated Programme	Admission to the programme is subject to successful completion of the University of Plymouth International College (UPIC)

	Foundation Year with an aggregate mark of at least 50% in each of the modules studied.

A minimum 112-120 points are required for entry to BEng. This must normally include grade C in mathematics and at least one science/technology subject. A complete list of current UK and equivalent European qualifications[5] and English Language requirements for overseas applicants[6] can be found on the University website.

Students who have successfully completed Stage 1 of the school's BSc with an aggregate mark of 70% may progress to Stage II of the BEng but will be expected to carry out additional studies to ensure they are confident with the BEng Stage I material. Students who have successfully completed Stage 2 of the school's BSc programme may be considered on an individual basis for transfer to Stage 2 BEng and a minimum mark of 60% will normally be required.

Exceptionally, direct entry to stages 2 and 4 is possible, provided that previous equivalent study at the appropriate levels can be demonstrated to the satisfaction of the Programme Manager.

The programme structure allows early transfer between the three engineering awards. Students achieving an aggregate mark of 60% with no referrals may transfer to the MEng programme in stage 4.

The University has strategies to promote equality of opportunity, widen participation and encourage access. Applications are welcomed from younger students from disadvantaged backgrounds, mature students and people with disability. The Disability ASSIST Service supports disabled students across the University[7].

Partnership Arrangements

UPIC Stage 1 Equivalent Integrated programmes

On successful completion of their Stage 0 programme UPIC students progress to Stage 1 of their designated programme and are taught and assessed by UP staff. Additionally, the students will undertake a module (ILS 1005) of skills and support designed to facilitate their transition to the HE learning culture in the UK.

Progression to Stage 1 Integrated programmes is dependent upon achieving 50% in all modules of the PIUC Stage 0 programme.

[5] http://www1.plymouth.ac.uk/courses/undergraduate/3126/Pages/EntryRequirements.aspx
[6] http://www1.plymouth.ac.uk/internationalplymouth/Pages/entry.aspx
[7] http://www.plymouth.ac.uk/disability

Progression to UP Stage 2 is dependent upon successful completion of the UP Stage 1 and at least 60% in ILS 1005 (The UPIC DMD for ILS 1005 is appended).

10. Progression criteria for Final and Intermediate Awards

120 credits from stage 1 are required for the award of Certificate of Higher Education (CertHE).

120 credits from stage 1 plus 120 credits from stage 2 are required for the award of Diploma of Higher Education (DipHE).

The award of a BEng Honours requires passes in 360 credits, of which 120 are at Level 4, 120 are at level 5 and a further 120 at level 6. The Honours classification is based on the aggregate percentage mark, calculated using a ratio of 3:7 for stages 2 and 4. This means the final aggregate for a three year degree is calculated by applying 0.3 to the level 5 marks (taken in Stage 2) and 0.7 to the level 6 marks (taken in Stage 4).

For cohorts starting before 2018, the BEng weightings are:
Level 5 (Stage 2): 30%
Level 6 (Stage 4): 70%

For September 2018 cohorts onwards, the BEng weightings will follow normal University Regulations for Undergraduate Degrees which are:
Level 4 (Stage 1): 10%
Level 5 (Stage 2): 30%
Level 6 (Stage 4): 60%

Students progressing from partner colleges where a progression agreement exists will be advised whether the agreement provides progression to Stage 2 (Level 5) or Stage 4 (Level 6).

11. Exceptions to Regulations

Due to accreditation requirements, where a module assessment involves more than one element, students are required to achieve a minimum of 30% in each element at Level 4, 5 and 6.

12. Transitional Arrangements

2017/18 Modules	2018/19 Modules
MECH118	MECH118 now all semester
THER104	THER104 now all semester
MECH121PP	MECH121 now all semester
MECH117	MECH117 now all semester
MECH120	MECH120 now all semester
MATH187	MATH189 now all semester
MATS122	MATS122 now all semester

13. Mapping and Appendices:

13.1 ILO's against Modules Mapping

See Appendix 1

13.2 Assessment against Modules Mapping

See Section 6

Assessment

Assessment strategies will be fully developed in line with the defined curriculum enrichment project strategy

13.3 Skills against Modules Mapping

See Appendix 2

13.4 UPIC ILS1005 Module Record

See Appendix 3

Appendix 1: Intended Learning Outcomes required by Accreditation Body

BEng		**MEng**	
	Underpinning Science and Mathematics		
US1	Knowledge and understanding of scientific principles and methodology necessary to underpin their education in their engineering discipline, to enable appreciation of its scientific and engineering context, and to support their understanding of relevant historical, current and future developments and technologies	US1M	A comprehensive understanding of the scientific principles of own specialisation and related disciplines
US2	Knowledge and understanding of mathematical principles necessary to underpin their education in their engineering discipline and to enable them to apply mathematical methods, tools and notations proficiently in the analysis and solution of engineering problems	US2M	A comprehensive knowledge and understanding of mathematical and computational models relevant to the engineering discipline, and an appreciation of their limitations
US3	Ability to apply and integrate knowledge and understanding of other engineering disciplines to support study of their own engineering discipline	US3M	Understanding of concepts from a range of areas including some outside engineering, and the ability to evaluate them critically and to apply them effectively in engineering projects
		US4M	Awareness of developing technologies related to own specialisation
	Engineering analysis		
E1	Understanding of engineering principles and the ability to apply them to analyse key engineering processes	E1M	Ability to use fundamental knowledge to investigate new and emerging technologies
E2	Ability to identify, classify and describe the performance of systems and components through the use of analytical methods and modelling techniques	E2M	Ability to extract data pertinent to an unfamiliar problem, and to apply its solution using computer based engineering tools where appropriate.

E3	Ability to apply quantitative methods and computer software relevant to their engineering discipline, to solve engineering problems	E3M	Ability to apply mathematical and computer based models for solving problems in engineering, and the ability to assess the limitations of particular cases
E4	Understanding of, and the ability to apply, an integrated or systems approach to solving engineering problems		
	Design		
D1	Investigate and define a problem and identify constraints including environmental and sustainability limitations, health and safety and risk assessment issues	D1M	Wide knowledge and comprehensive understanding of design processes and methodologies and the ability to apply and adapt them in unfamiliar situations
D2	Understand customer and user needs and the importance of considerations such as aesthetics		
D3	Identify and manage cost drivers		
D4	Use creativity to establish innovative solutions ok	D4M	Ability to generate an innovative design for products, systems, components or processes to fulfil new needs
D5	Ensure fitness for purpose for all aspects of the problem including production, operation, maintenance and disposal		
D6	Manage the design process and evaluate outcomes		
	Economic, legal, social, ethical and environmental context		
S1	Knowledge and understanding of the commercial, economic and social context of engineering processes	S1m	The ability to make general evaluations of commercial risks through some understanding of the basis of such risks
S2	Knowledge of management techniques which may be used to achieve engineering objectives within that context	Sm2	Extensive knowledge and understanding of management and business practices, and their limitations, and how these may be applied appropriately to strategic and tactical issues
S3	Understanding of the requirement for engineering activities to promote sustainable development		
S4	Awareness of the framework of relevant legal requirements governing engineering activities, including personnel, health and		

	safety, and risk (including environmental risk) issues		
S5	Understanding of the need for a high level of professional and ethical conduct in engineering		
	Engineering practice		
P1	Knowledge of characteristics of particular equipment, processes, or products	P1m	A thorough understanding of current practice and its limitations and some appreciation of likely new developments
P2	Workshop and laboratory skills	P2m	Extensive knowledge and understanding of a wide range of engineering materials and components
P3	Understanding of contexts in which engineering knowledge can be applied (e.g. operations and management, technology, development etc.)		
P4	Understanding use of technical literature and other information sources		
P5	Awareness of nature of intellectual property and contractual issues		
P6	Understanding of appropriate codes of practice and industry standards		
P7	Awareness of quality issues		
P8	Ability to work with technical uncertainty	P8m	Ability to apply engineering techniques taking account of a range of commercial and industrial constraints

Appendix 2: UK-SPEC Output Standards Matrix

Output Standards Matrix: BEng / MEng Mechanical Engineering with Composites

Programme Title:	Stage 1																	Stage 2												Stage 4								Stage 5 (MEng Only)					
BEng / MEng	Module numbers (where the output criteria statements are addressed)																																										
Mechanical Engineering with Composites	MECH120	MECH118	A5MFT1	MATH187	MECH121	MATS122	MECH117	BPIE115	THER104	BPIE215	HYFM230	STO208	MECH232	STRC203	THER207	CONT221	MFRG208	MATS234	PRME307	HYFM322	MECH340	MFRG311	MATS347	MATS348	MECH532	ROCO505	MAR528	PRCE513	MECH534	MECH544													
General Learning Outcomes																																										
(see EAB/ACC2 - Appendix A for more details)																																										
Knowledge and Understanding																																										
KU1		✓		✓		✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓											
KU2		✓		✓					✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓											
KU3						✓						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓											
Intellectual Abilities																																										
IA1		✓		✓	✓	✓	✓		✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓										
IA2					✓						✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓				✓	✓	✓	✓											
IA3					✓	✓		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓	✓	✓	✓										
Practical skills																																										
PS1	✓		✓		✓	✓			✓				✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓										
General transferable skills																																										
GT1		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓											
Specific Learning Outcomes																																										
(see EAB/ACC2 - Appendix B for more details)																																										
Underpinning Science & Mathematics																																										
US1		✓			✓	✓	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓		✓															
US1m																											✓		✓	✓												
US2		✓		✓		✓	✓		✓		✓	✓		✓	✓	✓		✓	✓	✓	✓		✓	✓		✓															
US2m																									✓	✓	✓			✓											
US3		✓			✓	✓			✓				✓		✓	✓	✓	✓		✓	✓	✓	✓	✓		✓															
US3m																										✓	✓		✓	✓											
US4m																										✓	✓		✓													
Engineering Analysis																																										
E1		✓			✓	✓	✓		✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓															
E1m																											✓		✓	✓											
E2		✓			✓	✓	✓		✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓																	
E2m																									✓		✓			✓											
E3	✓	✓			✓	✓			✓		✓	✓	✓		✓	✓		✓	✓	✓	✓		✓	✓																
E3m																									✓		✓			✓											
E4					✓	✓				✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓																	
Design																																										
D1					✓	✓						✓	✓					✓	✓	✓	✓		✓																	
D1m																											✓		✓											
D2					✓	✓						✓	✓				✓	✓		✓	✓	✓	✓																	
D3					✓							✓					✓			✓	✓	✓	✓					✓											
D4					✓		✓					✓	✓							✓	✓		✓																	
D4m																								✓		✓		✓	✓											
D5					✓	✓							✓				✓	✓		✓	✓	✓	✓																	
D6					✓		✓													✓	✓		✓																	
Economic, social & environmental context																																										
S1					✓	✓						✓			✓		✓	✓		✓	✓	✓	✓																	
S1m																											✓	✓	✓											
S2					✓							✓					✓			✓	✓	✓	✓																	
S2m																													✓											
S3					✓				✓				✓							✓	✓	✓	✓	✓																
S4													✓							✓	✓		✓																	
S5		✓					✓						✓		✓					✓	✓		✓	✓																
Engineering Practice																																										
P1		✓	✓		✓	✓			✓		✓		✓		✓	✓		✓	✓	✓	✓		✓			✓	✓													
P1m																										✓	✓			✓											
P2			✓		✓	✓	✓		✓		✓		✓	✓	✓	✓		✓	✓	✓	✓		✓			✓	✓													
P2m																											✓		✓											
P3		✓			✓		✓					✓		✓	✓	✓	✓			✓		✓	✓			✓	✓													
P4	✓	✓			✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓											
P5												✓				✓		✓		✓			✓					✓											
P6	✓				✓	✓							✓	✓				✓			✓	✓	✓	✓			✓												
P7	✓				✓	✓	✓						✓				✓	✓	✓		✓	✓	✓																
P8					✓		✓						✓	✓	✓	✓		✓	✓	✓	✓		✓																
P8m																									✓		✓	✓	✓	✓										

modules with direct materials contents

Appendix 3: ILS1005 Module Record

DMD ILS1005

Module Code	**Interactive Learning Skills and Communication ILS1005**			**FHEQ 4**
Version	Current Version	2.14	October 2014	
	Prior Version/s	1.14	September 2014	
		1.13	October 2013	
		1.12	July 2012	

This Definitive Module Document (DMD) is designed for all prospective, enrolled students, academic staff and potential employers. It provides a concise summary of the main features of the module and the Specific Learning Outcomes (LOs) that a typical student might reasonably expect to achieve and demonstrate if he/she takes full advantage of the learning opportunities.
Detailed information regarding the content and assessment criteria of this module should be considered alongside the appropriate Programme Specifications (PSs) and Module Guide (see MG ILS1005).

Module Name	**Interactive Learning Skills and Communication (ILSC)**
Module Code	**ILS1005**
Module Duration (per semester)	Thirteen (13) weeks
Contact Hours (per semester)	52
Directed Study Hours (per semester)	-
Self-directed Study Hours (per semester)	98
Notional Hours (per module)	150
Teaching Rotation	01,03
Teaching Body	UPIC
Articulating Institution	University of Plymouth
Articulating Faculty	Faculty of Science and Environment; Faculty of Arts and Humanities; Plymouth Business School
University Campus	Drakes Circus
Pathways (on which this module is offered)	All Integrated Pathways
Credit Points	Zero
Pathway Stage	UPIC Stage 2 (University of Plymouth Stage 1)
Stage FHEQ Level	4
Language of Delivery	English
Language of Assessment	English
E-Learning	IT software packages (Word, PowerPoint, Excel), internet access; College Portal; University Student Portal.
Moderation	See CPR QS9
Standard Progression Criteria	Summary: minimum overall pass mark of 65% (Grade C*) across all assessment events and a minimum of 65% in assessments B, D and E. See CPR QS9.
Failure to Progress	[Summary: a student may not fail a module assessment on more than one (1) occasion, failure of the module assessment once requires that a student re-sit the failed assessment thereafter re-take the entire module at full cost; failure of a student to complete a module on the re-take of that module will result in referral to the College Learning and Teaching Board for a student management decision. The University will not be incumbent to progress students who fail].

Aims

This module has been designed to be delivered in conjunction with the Integrated FHEQ Level 4 (equivalent) first year degree and associated programmes in order to benchmark and satisfy the transfer criteria with regard to student communication and learning skills competency. This module is part of a wider pedagogic approach taken by NAVITAS UK to ensure the preparedness of its students and graduates with a focus on the relevant transferable and portable skills of effective and professional communication to support further study at a variety of levels, whether it involves higher education or further post-degree vocational programmes and/or professional awards, as well as providing a basis to foster career and life-building skills.

Utilising a number of practical activities to allow candidates to achieve these essential skills, students will be introduced to techniques and strategies to manage speech anxiety; enhance grammar and vocabulary; think critically under pressure; research, package and deliver logical and persuasive communication both orally and in a variety of written formats (inclusive of dissertation); summarise; become an effective listener; understand cultural and gender differences; and work effectively in a team.

This module ensures that graduates have attained the prescribed level of inter-disciplinary communication competence described as Level B2 'Proficient User' by the Council of Europe, see *Common European Framework of Reference for languages: Learning, teaching assessment 2001*, Council of Europe, CUP, Cambridge, p. 24, Table 1. *Common Reference Levels: global scale*. This module is ACL accredited and benchmarked: ACL is a leading provider of English language provision to students seeking entry to Australian HEIs and a variety of levels. ACL now forms part of Navitas English and carries dual accreditation by the Australian National ELT Accreditation Scheme (NEAS) and the NSW Government's Vocational Education and Training Accreditation Board (VETAB). Navitas English is also a Registered Training Organisation (RTO) under the Australian Quality Training Framework (AQTF).

Successful completion of this module indicates that students have obtained a good understanding of and ability to apply the requisite knowledge and skills to enable them for successful onward study at undergraduate degree level.

Topics

- ⇨ Preparation for college and university programmes
- ⇨ Personal development planning (PDP)
- ⇨ Presentation skills
- ⇨ Listening skills
- ⇨ Skills for self-directed study
- ⇨ Appropriateness
- ⇨ Library induction
- ⇨ Writing at university
- ⇨ Analysing questions/titles
- ⇨ Planning written work projects
- ⇨ Teamwork
- ⇨ Composition and style
- ⇨ Summarising techniques
- ⇨ Revision techniques
- ⇨ Examination overview and techniques
- ⇨ Critical analysis and use of evidence

Specific Learning Outcomes

A	**Knowledge and Understanding** *Upon completion of this module students will be able to demonstrate their knowledge and understanding of the following:*
1	The structure of the UNIVERSITY degree programmes and classification.
2	UNIVERSITY undergraduate degree scheme structures and awards.
3	UNIVERSITY laboratory, library and e-learning facilities; College resources and personal resources to support study.
4	Time management and its application to notional hours of study and assessment events.
5	Public speaking techniques and managing communication apprehension.
6	Non-verbal communication techniques.
7	Listening skills and knowledge dissemination and retention techniques.
8	The importance of ensuring a clear basic understanding of the history of scholarship with regard to certain subject areas and/or the use of appropriate nomenclature to aid communication.
9	What language styles to employ in a variety of situations to ensure appropriateness and clarity of communication.
10	A comprehensive set of clear writing techniques (plain English, factual and persuasive writing) that can be applied to a variety of written formats.
11	How to create appropriate and effective document layouts.
12	The importance and basic precepts of style when composing written work in a variety of forms.
13	How to embed the concept of continuous improvement and objectivity in relation to an individual's academic performance.
14	Professional communication and presentation.
15	How to enhance personal creativity and lateral thought processes.
16	Examination techniques and skills.
17	Design and communicate effective messages to a variety of audiences.
18	How to work effectively as a team member.
19	How to work effectively as an individual.

20	How to apply basic research and referencing techniques to formulate reasoned academic opinion in a variety of forms so as to avoid plagiarism and collusion.
B	**Intellectual / Cognitive Skills**
1	Ability to employ appropriate nomenclature and terminologies across subject contexts.
2	Ability to analyse various modes of information when delivered in different formats.
3	Make full use of library and e-learning search (catalogue and bibliographic) resources.
4	Ability to effectively retain and communicate knowledge and understanding of topics covered in the module in a comprehensive manner under timed conditions without re-course to learning aids.
C	**Practical Skills**
1	Develop organisational skills for deadline submission.
2	Proficiently use techniques and technology in the collation, interpretation and presentation of data in oral and written formats.
3	Develop oral presentation skills.
4	Develop written skills for a variety of formats and requirements.
D	**Transferable Skills**
1	Select, read, digest, summarise and synthesise information material in a variety of forms, both qualitative and quantitative (text, numerical data and diagrammatic) and in an appropriate manner to identify and determine key facts/themes, relevancy and assessment of problems and identification and implementation of solutions.
2	Use and clearly communicate discursive, numerical, statistical and diagrammatic ideas, concepts, results and conclusions using appropriate technical and non-technical language and language style, structure and form.
3	Apply basic research and referencing techniques to all aspects of study, information collation, information presentation and formulation of academic opinion.
4	Embedding the importance of self-study and reliance. This involves cultivating and developing a responsibility within each student to take cognizance for their own learning, initiative, effective time-management and self-discipline within the academic and professional environments.

Generic Learning Outcomes

Key skills demonstrated:	Key skills demonstrated by the ability to:
Personal organisation and time-management skills to achieve research goals and maintain solid performance levels;	Meet converging assessment deadlines – based on punctuality and organisation with reference to class, group and individual sessions within a dynamic and flexible learning environment with variable contact hours and forms of delivery.
Understanding of the importance of attaining in-depth knowledge of terminology as used in a given topic area, as a basis to further study;	Communicate clearly using appropriate nomenclature to enhance meaning in all oral and written assessments with no recourse to collusion or plagiarism.
Understanding, knowledge and application of appropriate and effective methods of communication to meet formal assessment measures;	Present clearly, coherently and logically in a variety of oral and written formats using a variety of appropriate qualitative and quantitative tools and evidence bases.
Understanding and knowledge as to the development of the industry and/or scholarship in relation to a given topic under study;	Demonstrate an understanding of the current themes of a given topic, the academic and practical foundation on which they are based – demonstrated by a lack of plagiarism and need for collusion in both individual and group work.
Understanding of the rules applying to plagiarism and collusion;	Collate, summarise, reason and argue effectively on a given topic without reference to another's work or ideas/concepts.
Ability to work as an individual, in a small team and in a larger group to effect data collation, discussion and presentation of evidence;	Meet and succeed in each of the varied assessments presented.

Assessment

Type	Duration	Method	Topic	Schedule	Weighting
Assessment E	*10 weeks*	*efficacy of individual PDP*	*Attendance and participation in PDP*	*NA*	*10%*
Assessment A	Nine (9) weeks	research project (1,500 – 2000 words)	Computing/engineering /biological or biomedical/environment studies	Set session 2.2 Submission session 11.1	30%
Assessment B	1 session (1 hour)	Listening assessment	Listen to a lecture (computing/engineering /biological or biomedical/environmen	Session 10.2	10%

			t studies) and answer set questions.		
Assessment C Individual presentation	1 session	Presentation	Project presentation and defence	Session 11.2	20%
Assessment D Final Examination	Two (2) hour (closed-book) examination	Examination	Final summative examination covering academic reading and writing skills; history of scholarship and academic debate and critical analysis	Week 13	30%
Total Weighting					100%

Standard Progression Criteria

For the purposes of UPIC this module carries a standard minimum progression requirement: [grade C* / pass mark 65%].
For University of Plymouth this is a Pass/Fail zero credited module that the student must pass to progress into University Stage 2.

Grade	Classification	Mark
A*	High Distinction	80% – 100%
B*	Distinction	70% - 79%
C*	Pass	65% - 69%
F	Fail	Less than 65%

Bibliographic Resources

Essential Reading

Essential Reading

Module Guide – see MG ILS1005

Recommended Reading

Cottrell, S., *The Study Skills Handbook*, 3rd ed., Macmillan, 2008.

Fry, R., *How to Study*, 6th ed., Delmar Learning, 2005.

Race, P., *How to Get a Good Degree – Making the most of your time at* university, 2nd ed., Open University Press, 2007.

Further Sources

Baker, E., Barrett, M., and Roberts, L., *Working communication.* Milton, 2002.
Berko, R. M., Wolvin, A. D., and Wolvin, D. R., *Communicating: A social and career focus*, Boston, 8th ed., 2001.
Blundel, R., *Effective organisational communication: Perspectives, principles and practices*, Essex, 2nd ed., 2004.
Daly, J. A., and Engleberg, I. N., *Presentations in everyday life: Strategies for effective speaking*, Boston, 2001.
O'Rouke, J. S. (2004). *Management communication: A case-analysis approach*, New Jersey, 2nd ed., 2004.
Whalen, D. J., *I see what you mean,* Chicago, 1995.

Journals (general reading)

Asian Journal of Communication
Communication Education
Journal of Communication
Relevant computing/engineering/biological or biomedical/environment journals – supplied as focus by Instructor

List