

UNIVERSITY OF PLYMOUTH INTERNATIONAL COLLEGE

## **PROGRAMME SPECIFICATION**

University Founda		outing,				RQF 3
Engineering and F	Robotics					
Versions		Current Version	1.23			November 2023
		Prior Version/s	3.19			September 2019
			2.19			August 2019
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			2.14			September 2014
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			2.13			April 2013
			1.13			January 2013
			1.13			January 2013
PATHWAY/s						
Pathway Type	Undergraduate					
Pathway Areas						
Pathways/s	Computing,					
	Engineering					
	and Robotics					
University UNITe Code/s	Codes now appl	ied per pathway, p	lease see	available UNITe prog	gramme codes s	preadsheet
College NAVIGATE		<u> </u>				
Code/s						
Three Semester						
Two Semester	L1E1	L1E2		L1E4		
	LILI		- Lovol/s			
Pathway Provision		College: RQF		3 and 4		
A 1' 11 ' '		University: RQF	- Level/s	5 and 6		
Awarding University	University of Ply					DOE Assert Level
Awards by Pathway	Degree awards					RQF Award Level
Transfer	Stream 1 (L1E1)	Generalist Stream	ı – allows,	on successful compl	letion, transfer	6
	to candidacy of	the prescribed U	JPIC 1st Y	ear degree (equivale	ent) integrated	
		•		niversity of Plymou		
		_			•	
			, Faculty	of Arts, Humanities	s and Business	
	degree schemes at HE Level 2:  BSc (Hons) Computer Science  BSc (Hons) Audio and Music Technology					
	Stream 2 (L1F2)	Specialist Stream	– allows	on successful compl	letion transfer	
		•		ear degree (equivale		
		•				
	programme/s	eauing to the fol	nowing U	niversity of Plymou	iui, raculty of	

	Science and Engineering and Faculty of Arts, Humanities and Business degree				
	schemes at HE Level 2:				
	BSc (Hons) Architectural Engineering				
	BEng (Hons) Civil and Coastal Engineering				
	BEng (Hons) Civil Engineering				
	BEng (Hons) Mechanical Engineering				
	BEng (Hons) Marine Technology				
	22.18 (. 10.16)				
	6. 4 (454) 6				
	Stream 4 (L1E4) Specialist <i>Stream</i> – allows, on successful completion, transfer				
	to candidacy of the prescribed UPIC 1st Year degree (equivalent) integrated				
	programme/s leading to the following University of Plymouth, Faculty of				
	Science and Engineering degree schemes at HE Level 2:				
	BEng (Hons) Electrical and Electronic Engineering				
	BEng (Hons) Robotics				
Subject Benchmark	Reference, where appropriate, to the following overall degree Learning Outcomes: Computing QAA				
Statements					
	5 <sup>th</sup> Edition 30/03/2022; Engineering QAA 5 <sup>th</sup> Edition 08/03/2023; MSOR QAA 5 <sup>th</sup> Edition 08/03/2023				
College Status	Associate College				
College Location	15 Portland Villas, Drake Circus				
University Location University Faculty	Drake Circus, Plymouth, PL4 8AA  Faculty of Science and Engineering; Faculty of Art, Humanities and Business				
University School/s	School of Engineering, Computing and Mathematics; School of Art, Design and Architecture, School				
	of Society and Culture				
Rationale	The partnership between UPIC and University of Plymouth facilitates the acquisition of an				
	undergraduate degree by international students who, because of their previous educational experience, are not normally able to gain direct access to the University's degree schemes in the				
	Faculty of Science and Engineering. The programme has been developed to satisfy important				
	pedagogical issues:				
	<ol> <li>To ensure that international students have a dedicated period of time, in a familial and safe setting, to acquire the basic knowledge and skills to prepare for undergraduate degree</li> </ol>				
	studies within a western learning environment. Thus, supporting transfer to the UPIC 1s				
	Year degree (equivalent) integrated programmes in Electronic and Electrical Engineering				
	Robotics; Civil, Structural and Coastal Engineering; Mechanical, Marine and Materials				
	Engineering; and Computing studies and thereon, on successful completion, transfer to the prescribed HE Level 2/Stage 2 studies at University of Plymouth.				
	presented the bever 27 stage 2 stadies at offiversity of Frymouth.				
	2. To satisfy the University's quality protocols, which, in turn, are directed by the QAA Subject				
	Benchmark requirements, for transfer to undergraduate degree studies in the disciplines o				
	Electronic and Electrical Engineering; Robotics; Civil, Structural and Coastal Engineering Mechanical, Marine and Materials Engineering; Building and Construction Management				
	and Computing; Architectural Engineering at HE Level 2/Stage 2.				
	3. Facilitate access to the UPIC 1st Year degree (equivalent) integrated programmes and from there the opportunity to transfer to a prescribed University of Plymouth degree scheme a				
	undergraduate HE Level 2/Stage 2 for those students who, for a number of reasons, do no				
	meet the direct entry tariff to the Faculty of Science and Engineering degree schemes at Hi				
	Level 1/Stage 1.				

- 4. Protect the Faculty of Science and Engineering entry tariff to its undergraduate degree schemes and ensure that the University does not need to lower its entry tariff in order to increase its international student population.
- 5. Widen access and participation in higher education in line with the University's internationalisation agenda.
- 6. Commit to the provision of best practice customer service and student experience for international students and thus add value to the University's award-winning student lifestyle.
- 7. Support the integrity of the University's QAA commitment by adopting and adapting the University's quality regime to form the basis of a robust, quality driven set of academic programmes and administrative systems and processes.
- 8. Facilitate effective and efficient, low risk public/private partnership in line with the University's strategic research mission.
- 9. Enhance the global reach of the University into previously untapped markets and market segments.
- 10. Add resource, human and financial, to the University's marketing process.
- 11. Facilitate access to a global recruitment process.
- 12. Assist in the diversification of the student body.
- 13. Make available the benefits derived from access to Navitas' global reach and corporate marketing arm.

The UPIC University Foundation in Computing, Engineering and Robotics offers successful candidates the opportunity to transfer seamlessly to the UPIC 1st Year degree (equivalent) integrated programmes in Electronic and Electrical Engineering; Robotics; Civil, Structural and Coastal Engineering; Mechanical, Marine and Materials Engineering; Architectural Engineering and Computing and, on successful completion, to the prescribed University of Plymouth degree schemes at HE Level 2/Stage 2. The UPIC University Foundation is recognised by University of Plymouth, see *Recognition Agreement*, March 2009, Schedules 1 and 2, and thus operates, where possible, in line with the quality framework of University of Plymouth, Faculty of Science and Engineering and the Faculty of Arts, Humanities and Business to which these pathways lead.

#### **Educational Aims**

The programme has been devised in accordance with the NVT UK Ltd University Foundation general educational aims along with those formulated for UPIC, see CPR QS01; CPR QS 04; CPR QS08; and CPR QS09.

The educational aims of the programme are to:

- Prepare students, who would not normally be considered qualified, to an appropriate standard for entry into the UPIC 1st Year degree (equivalent) integrated programmes in Electronic and Electrical Engineering; Robotics; Civil, Structural and Coastal Engineering; Mechanical, Marine and Materials Engineering; and Computing – equivalent to the prescribed HE Level 1 Faculty of Science and Engineering degree schemes at University of Plymouth.
- 2. Develop in students a fundamental knowledge and understanding that can demonstrate basic facts, concepts, theories and principles of engineering and related technological disciplines, and their underpinning science of mathematics so as to support their transfer into the UPIC 1st Year degree (equivalent) integrated programmes in Electronic and Electrical Engineering; Robotics; Civil, Structural and Coastal Engineering; Mechanical, Marine and Materials Engineering; Building and Construction Management; and Computing.

Ensure students acquire and foster an appreciation of the wider engineering context and its underlying principles, inclusive of the social, environmental, ethical, economic and commercial impacts and effects as well as the potential careers involved so as to support their transfer into the UPIC 1st Year degree (equivalent) integrated programmes in Electronic and Electrical Engineering; Robotics; Civil, Structural and Coastal Engineering; Mechanical, Marine and Materials Engineering; and Computing.

Encourage in students the ability to use analytical and practical processes to engineering and related technological queries so as to support their transfer into the UPIC 1st Year degree (equivalent) integrated programmes in Electronic and Electrical Engineering; Robotics; Civil, Structural and Coastal Engineering; Mechanical, Marine and Materials Engineering; Architectural Engineering and Computing.

- 4. Develop in students an appreciation and desire to learn based on competent intellectual and practical skills that build to a set of transferable skills that will support them in all aspects of their onward academic studies/careers and support their decision making in an informed manner.
- 5. Ensure that graduates have attained the prescribed level of inter-disciplinary language competence described as Level B2 'Independent 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.
- 6. Ensure that graduates have attained the prescribed level of inter-disciplinary language competence to a minimum pass mark of 50% in the ACL accredited module Interactive Learning Skills and Communication, and therein a minimum 6.0 IELTS equivalent.

# **PROGRAMME**

Title	University Foundation in Computing, Engineering and Robotics				
RQF	3				
Duration of Study	Two (2) semesters	3			
Weeks of Study	Twenty Six (26) we	eeks			
Mode of Study	Full-time				
Mode of Delivery	Face to Face				
Notional Hours	Two Semester				
Credit Points	Stream 1= 150				
	Stream 2= 150				
	Stream 4 = 150				
Contact Hours	Stream 1 = 460				
	Stream 2 = 472				
	Stream 4 = 472				
Self-directed Study Hours	Stream 1 =940				
	Stream 2 = 1028				
	Stream 4 = 1028				
Delivery Model	Integrated Deliver	y Model (IDM): First Year Di	rect Entry for Middle Eastern Sponsored Students		
Language of Delivery	Delivery	English			
	Assessment	English			
	Council of	Entry Level 1: Common lan	guage reference level B1 increasing to B2 Independent		
	Europe	User			
		Entry Level 2: Common language reference level B2 Independent User			
	ACL	Interactive Learning Skills a	and Communication		
	Accreditation				
Intended Learning	<u>Generic:</u>				
Outcomes	All modules have	a set of Generic Learning O	utcomes (LOs) attached to them; see relevant Definitive		

Module Documents (DMDs). These provide a basic set of core transferable skills that can be employed as a basis to further study and life-long learning. They are delivered using an interdisciplinary and progressive approach underpinned by the relevant Interactive Learning Skills and Communication (ILSC) module, to build these core skills within the context of subject-specific learning. Incorporated in these core skills are the key themes of relationship-management, time-management, professional communication, technological and numerical understanding and competency.

The Generic LOs for the programme are tabled below:

Key knowledge will be demonstrated by:	Key skills will be demonstrated by the ability to:
Personal organisation and time-management skills to	Meet converging assessment deadlines – based on punctuality
achieve research goals and maintain solid performance	and organisation with reference to class, group and individual
levels.	sessions within a dynamic and flexible learning environment
	with variable contact hours and forms of delivery.
Understanding of the importance of attaining in-depth	Communicate clearly using appropriate nomenclature to
knowledge of terminology as used in a given topic area, as a	enhance meaning in all oral and written assessments with no
basis to further study.	recourse to collusion or plagiarism.
Understanding, knowledge and application of appropriate	Present clearly, coherently and logically in a variety of oral and
and effective methods of communication to meet formal	written formats using a variety of appropriate qualitative and
assessment measures.	quantitative tools and evidence bases.
Understanding and knowledge as to the development of the	Demonstrate an understanding of the current themes of a
industry and/or scholarship in relation to a given topic	given topic, the academic and practical foundation on which
under study.	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	Collate, summarise, reason and debate/argue effectively on a
collusion.	given topic with appropriate reference to another's work or
	ideas/concepts.
Ability to work as an individual, in a small team and in a	Meet and succeed in each of the varied assessments
larger group to effect data collation, discussion and	presented.
presentation of evidence.	

**Generic LOs** – All modules have a set of generic Learning Outcomes (LOs) attached to them, see relevant DMDs. These provide a basic set of core transferable skills that can be employed as a basis to further study and life-long learning. They are delivered using an interdisciplinary and progressive approach to build these core skills within the context of subject-specific learning. Incorporated in these core skills are the key themes of relationship management, time management, professional communication, technological and numerical understanding and competency.

The generic LOs for the programme are tabled below:

Α	Knowledge and Understanding					
	To obtain a knowledge and understanding:	Teaching/learning methods and strategies:	Assessment methods and strategies are tested via			
2	The relationship the subject of engineering has to industry, business, human development and lifestyles and its applications to the contemporary world.  The principles underlying the use of materials in engineering applications along with their production, use and control.	Acquisition of intended LOs via a combination of small group lectures, small group-based tutorial coursework (oral and written presentation), individual coursework (oral and written presentation) and summative examination. Additional support is provided through the provision of small peer-led tutorial group work; laboratory-based work in University of Plymouth labs; UPIC	A combination of summative (closed-book) examinations and summative coursework along with written assignments and in-course assessments, computer-based coursework, project reports and presentations, laboratory work.			
3	The fundamentals of programming and how it is used and contributes to the engineering and computing process and solves engineering and computing problems.	module-specific subject specialists; guest speakers (industry/topic specific); monitoring and appraisal by UPIC academic management as well as NVT UK Ltd management.  Ensuring all candidates acquire				
4	The context and future development of engineering processes at personal,	grounding in University of Plymouth and associated end-user IT platforms for academic study. The opportunity				

	5	commercial, national and global levels.  The theories and key concepts of physical science in an interdisciplinary context.	to interface regularly with noted platforms in the College University of Plymouth library and independent environments to develop an understanding of the implications of the use of different computer and IT systems for research.	
	6	How engineering contributes to the wider range of social and political issues.	Acquisition of A.2, A.3, A.7, A10 and A.11 via topic specific small lab-based group lectures and the additional support and guidance provided via the provision of small peer-led	
	7	Physical laws and their relevance to engineering principles.	tutorial group work in differing, sometimes laboratory-based, environments.	
	8	How economic and technological developments affect the environment and their management.	All lecturers are available via email and the student portal for queries to be met.	
	9	The application of mathematic techniques to the engineering and logical decision making process.	Students are encouraged throughout the programme to undertake independent study both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and	
	10	The purpose and processes of object-orientated programming and an introductory understanding of Java.	understanding of the subject.  Feedback is given to all students on all work produced and, where appropriate, confirmed in individual	
	11	The application of ICT as a fundamental tool for extracting, sourcing, describing and presenting data and information in a variety of relevant forms, and distributing data and information via a range of channels and formats.	appraisal events associated with modules and more generally NVT UK Ltd academic management. Additional interviews are made with the lecturer and/or the College Director/Principal to evaluate and discuss any emerging learning issues and therein a candidate's options.	
	12	The techniques and forms of effective and clear communication in a variety of academic and professional settings in accordance with Level B2 'Independent User' as described by the Council of Europe, see p. 3 of this document for reference.	Academics preferably have a strong commercial-related and engineering background as well as academic and teaching credentials to ensure that the programme satisfies the generic outcomes required by the QAA Foundation Degree qualification benchmark – application of concepts to the work environment.	

	13	The role and importance of the study of the history of scholarship as a basis to determining a full understanding, correct use of accurate nomenclature and an appreciation of fundamental concepts associated with a subject area.		
	В	Cognitive/Intellectual Skills  To obtain intellectual/cognitive skills	Teaching/learning methods and strategies	Assessment methods and strategies via
_	1	with the ability to:  Make full use of library and IT search (catalogue and bibliographic) resources.	Acquisition of intended LOs via a combination of small group lectures, small group-based tutorial coursework (oral and written	B.1 to B.5 – a combination of summative (closed-book) examinations and summative coursework along with written assignments, portfolios and in-
	2	Apply basic research techniques to sourcing and selecting appropriate academic data and	presentation), individual coursework (oral and written presentation) and summative examination. Additional support is provided through the provision of small peer-led tutorial	course assessments/tests, computer- based coursework and tests, project reports, presentations and practical's.  All students are required to maintain
_	3	Integrate oral, written, non-verbal and diagrammatic skills for clear communication.	group work; monitoring and appraisal by UPIC academic management as well as NVT UK Ltd management. Ensuring all candidates acquire	an 85% attendance record.
	4	Ability to analyse data and various modes of information using appropriate techniques.	grounding in University of Plymouth and associated end-user IT platforms for academic study. The opportunity to interface regularly with noted platforms in College University of	
	5	Ability to begin to evaluate and start to apply, reasoned thinking and supportive evidence collation to conflicting sets of information and academic opinion.	Plymouth library and independent environments to develop an understanding of the implications of the use of different computer and IT systems for research.  Acquisition of B.1 and B.2 via topic specific small lab-based group lectures and the additional support and guidance provided via the provision of small peer-led tutorial group work in differing environments.  Candidates are always encouraged to further develop intellectual skills by independent self-directed study as in the setting and monitoring of projects and coursework that require research and compilation skills as well as incourse spot-tests, examinations and participation. Students are encouraged to understand and evaluate with critical awareness the concepts studied at this level.	
	С	Practical Skills  To obtain practical skills with the ability to:	Teaching/learning methods and strategies	Assessment methods and strategies via
	1	Transfer and utilise key skills at a higher level of study.	Additional support is provided through the provision of small peer-led tutorial group work and integrated assessment regimes fostering interactivity of skills and knowledge across modules within the programme. Monitoring and	Integrated themes used across the continuous assessment framework for the programme to test robust capability skills in a number of environments.

		appraisal by UPIC academic management as well as NVT UK Ltd management.  Ensuring all candidates acquire grounding in University of Plymouth and associated end-user IT platforms for academic study. The opportunity to interface regularly with noted platforms in College, University of Plymouth library and independent environments to develop an understanding of the implications of the use of different computer and IT systems for research.	
2	Employ analytical skills and methodologies as a basis to further study.	Through a combination of small group lectures and small group-based tutorial supported by an assessment framework that requires a high level of self-directed study allows candidates to foster a range of analytical skills to support further study. This is aided by inclusion of the module ILSC1&3 in the programme.	A combination of summative (closed-book) examinations and summative coursework along with written assignments and in-course assessments, computer-based coursework, project reports and presentations that test all analytical skills and require the application of taught methodology to solve queries across a range of subject areas.
		Ensuring all candidates acquire grounding in University of Plymouth and associated end-user IT platforms for academic study. The opportunity to interface regularly with noted platforms in College, University of Plymouth library and independent environments to develop an understanding of the implications of the use of different computer and IT systems for research and skills application.	
3	Ability to begin to engage critically with regard to science.	Application of the central mathematical themes throughout all core modules of the programme via examples and topics for assessment regimes.	Integrated themes used across the continuous assessment framework for the programme to test robust capability skills in a number of environments.
D	Transferable Skills  To obtain transferable skills	Teaching/learning methods and	Assessment methods and
1	with the ability to:	strategies Embedded in all aspects of delivery	strategies via
-	Select, read, digest, summarise and synthesise information material in a variety of forms, both qualitative and quantitative	and assessment structures is the need to disseminate information presented in a variety of forms and modalities.	A combination of summative (closed-book) examinations and summative coursework along with written assignments and in-course
	(text, numerical data and diagrammatic) and in an appropriate manner to identify and determine key facts/themes	Using a combination of all delivery and assessment styles (oral and written, group and individual) used within the programme to	assessments, computer-based coursework, project reports and presentations.

	and relevancy.	demonstrate competence in	
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.	presentation, reports, long and short essays (to enhance summarisation techniques and limit collusion and plagiarism), timed assignments (indicating knowledge, organisation, time management and clear communication ability), of the following: design a persuasive message from the audience's perspective; demonstrate effective presentation delivery skills in a	This indicates an ability to effectively manage a complex and flexible timetable, combining a variety of delivery and assessment modes, some of which are conflicting in submission and style (oral/written and individual/small group, to demonstrate effective organisation, self-reliance and
3	Application of basic research and referencing techniques to all aspects of study, information collation, information presentation and formulation of academic opinion.	variety of situations; leave effective voice-mail messages; write persuasive e-mails, memos, letters; and write factual essays and reports in plain English.  Benchmarking of skills with regard to IT software packages (Word, PowerPoint Excel Access) internet	time-management skills.
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.	PowerPoint, Excel, Access), internet access, web-content management (CMS, via Drupal).	
5	Students will also begin to develop a very good conceptual understanding and evaluation of the main aspects of the disciplines of Life Sciences / Sciences that can serve them well in their future studies and careers.		

Assessment Regulations

#### Summary:

The programme is compliant with both the generic assessment regulations of Navitas UK and those of the College; see CPR QS9.

Each module within the programme/stage of study has an associated Module Outline Guide (MG) that may be broadened into a Definitive Module Document (DMD) either of which will be provided to students at the beginning of their studies. These documents offer generic information on the Aims and Specific LOs of the subject/s under study, basic references and the attendance and notional contact requirements. They also include topics/subject areas of study and outlines of the assessment events.

Each module has an associated textbook, as prescribed by the University's Module Outlines, and a specifically developed Module Content Guide (MG) which includes the types of assessment activities employed alongside a detailed lecture-by-lecture schedule of subject's students can be expected to cover over the teaching period. This acts as a useful reference for study and revision purposes. All assessment is designed to reflect and measure both an individual's and a cohort's achievement against the Specific LOs of the module and Intended LOs of the programme. Aims and learning objectives, alongside assessments and a selection of relevant College Policies, plus a weekly guide of learning and teaching can also be found at the top of each Moodle page. This is expected to be read in conjunction with the Student Study Guide (also hosted on each Moodle page) which gives detailed and critical information to the students.

In-course written, reading, listening and oral assessment is built into all modules through general interaction between tutors and students, student peer review and small group tutorials or individual tutorials/appraisals. Modes of assessment include essay/report writing, oral presentation (group or individual, and poster), portfolio, and e-based, in-class or take-home exercises/tests.

All written assessments must follow certain criteria in style and submission as noted in the relevant Module Content Guides. This form of assessment is considered fundamental to a student's ability to communicate ideas and evidence with clarity, relevance and logic in a planned and organised manner. Plain writing style, syntax and grammar are core skills that can be enhanced to support the maturing of individual students' composition and thus academic and transferable proficiency.

Oral presentations, whether part of formal or informal assessment practice, are encouraged within all modules as they promote, among others, transferable skills and can identify those students who may be plagiarising material. It is advised, however, that they should not make up more than 60% of the final module mark unless as part of the learning rational. Oral group presentations should ideally contain no more than five (5) students, unless specific reasoning is applied. Each member, irrespective of their role, should be awarded the same mark unless where obvious differentiation arises, for management of this process see CPR QS9. This form of expression should not be allocated more than fifty (50) minutes per group, with less than a 30% weighting. Time limits must be upheld by tutors so as to ensure all students have the same opportunity to perform. Furthermore, tutors ought to notify students as to the materials available to them before preparation takes place.

Final summative examination normally adheres to closed-book, invigilated, timed conditions and takes place during allocated exam periods of a programme. It represents a more Abstract measure of a student's achievement as a consequence of the Specific LOs associated with a module. It is utilised as a key measure of quality in teaching standards and provides a basis to aspects of delivery and environment which takes place at the conclusion of a semester by College academic services, see CPR QS9. Marks indicated in the relevant DMDs cannot be referred. Only in extenuating circumstances, sickness, personal tragedy or in the possibility of a clerical error, will deferral take place, see CPR QS9. Formal assessment modalities (coursework and examination, respectively), combine to produce the following weightings applied to any give module:

Coursework	Examination
100%	0%
80%	20%
70%	30%
60%	40%
50%	50%
40%	60%
30%	70%
20%	80%
0%	100%

Successful completion of a module is based on attaining the required overall pass grade prescribed. All students must achieve a grade D\* (50%) in the Interactive Learning Skills and Communication (see DMD ILSC1&3). The assessment mode for a given module is based on the desired Specific LOs, their expressions can be found in the relevant DMD. Students must be briefed at the beginning of each module as to which weightings are in use. They should also be clearly advised as to the marking

criteria and, hence, the achievement requirements for each grade cluster.

Where a student has a special need or disability, appropriate steps must be taken by the College, academic staff and/or internal/external invigilators to ensure that the need is recognised and a justified outcome identified, see CPR QS9.

#### Demonstration of achievement:

Students must pass all modules at the prescribed grade in order to progress to the next stage of their educational continuum, see Progression Criteria, below.

## Categories of performance and grading levels:

A and A\*(High Distinction 80-100%) – Distinctive level of knowledge, skill and understanding which demonstrates an authoritative grasp of the concepts and principles and ability to communicate them in relation to the assessment event without plagiarism or collusion. Indications of originality in application of ideas, graphical representations, personal insights reflecting depth and confidence of understanding of issues raised in the assessment event.

B and B\* (Distinction 70-79.99%) — Level of competence demonstrating a coherent grasp of knowledge, skill and understanding of the assessment and ability to communicate them effectively without plagiarism or collusion. Displays originality in interpreting concepts and principles. The work uses graphs and tables to illustrate answers where relevant. Ideas and conclusions are expressed clearly. Many aspects of the student's application and result can be commended.

C and C\*(Credit 60-69.99%) — Level of competence shows an acceptable knowledge, skill and understanding sufficient to indicate that the student is able to make further progress. The outcome shows satisfactorily understanding and performance of the requirements of the assessment tasks without plagiarism or collusion. Demonstrates clear expression of ideas, draws recognisable and relevant conclusions.

D (Pass 50-59.99%) – Evidence of basic competence to meet requirements of the assessment task and event without plagiarism or collusion. Evidence of basic acquaintance with relevant source material. Limited attempt to organise and communicate the response. Some attempt to draw relevant conclusions.

F (Fail less than 50%) – The student's application and result shows that the level of competence being sought has not yet been achieved. The assessed work shows a less than acceptable grasp of knowledge, skill and understanding of the requirements and communication of the assessment event and associated tasks.

#### Generic marking criteria:

Response – the response must address all parts of the question, that is not just a part or parts of the question. A response that is not specifically tailored to the needs of the question will not be accepted.

Structure – the student has identified the main issues of the question and attached the appropriate emphasis to them; has stated their agreement accurately and in some detail; and has utilised the supporting data.

Context – the student has displayed knowledge of the basic subject matter under assessment; has included only relevant material where required; has provided a written agreement or mathematical/numerical/diagrammatic/modelled statement and, in doing so, has addressed all aspects of it in reaching a conclusion; and has provided a clear understanding of a question in reaching a conclusion.

Presentation – due credit, specified as a percentage of the marking criteria, will be given for a succinct and fluent writing style.

Illegible material will not be given due credit, specified as a percentage of the marking criteria.

Penalty – a student will be penalised if they have not tackled each issue of a question separately, stating their agreement and or rationalised progression, and then applying this to the facts; and will be penalised for not providing evidence of academically based reasoning in an answer.

Sources – the student should provide accurate referencing; it is essential that a student does not plagiarise from any source, see CPR QS9.

## English and Maths Support

Students who have joined at Entry Level 1 will be invited to attend the weekly English club that can be provided by UPIC free of charge maths support is provided in class with extra lecturing staff available if required. The students can also attend free sessions hosted by University of Plymouth's English Language Centre. UPIC will also employ teaching assistants for maths and physics to give in class support

#### Moderation

See CPR QS09 – All examination papers are internally moderated through a peer review process. The College undertakes second marking as a matter of course and a 30% sample (or ten scripts, whichever is less) of the highest weighted piece is double marked for quality control purposes. Model answers are prepared alongside examination papers.

Progression Criteria	See Appendix 2 of this document; also see relevant DMDs and MGs in <i>Associated Documentation</i> (noted below): Summary: Minimum pass mark of 50% achieved in all modules.			
	Specialist Stream 2 and 4 summaries: All modules require a minimum pass mark of 50% for students seeking transfer through Specialist Stream 2 or 4, to a UPIC 1 <sup>st</sup> Year degree (equivalent) integrated BEng programme. However, students progressing to BEng (Hons) Degree Programmes would normally be required to achieve a minimum aggregate grade of 60% across the six academic modules (Not ILSC1&3 or ICT).			
	All decisions regarding progression to BEng (Hons) shall be determined by the end of Stage 1 Progression Boards which will assess the students across their full range of module grades. Students who fail to achieve 60% across all modules (individually or as an aggregate grade) or who do not show an academic progression will be deemed to have failed. Students achieving more than 50% but less than 60% will be offered the choice of progression on to an equivalent BSc (Hons) Programme.			
	For instance, BEng (Hons) Civil Engineering Students the BSc Equivalent is the BSc (Hons) Construction Project Management pathway in the Faculty of Arts, Humanities and Business; students enrolled into the Electrical Engineering or Robotics pathways will be offered a place on BSc (Hons) Computer Science.			
Failure to Progress	See CPR QS9 – Summary: a student may not fail any module more than three times; failure of a module that the student is judged through the processes set out in Sections 8 and 9 in CPR QS9. Depending on the amount of credits failed a student may be allowed a referral in the failed assessment elements. Failure of a student to successfully complete a module on the repeat of that module will result in referral to the College Progression Board for a student management decision to be made			
Associated Documentation	Definitive Module Documents (DMDs) as follows: DMD UF/ILSC1&3; DMD U/F SCI101MB; DMD UF/SCI101SC; DMD UF/SCI103; DMD UF/BUS107; DMD UF/SCI115; DMD UF/SCI116; DMD UF/SCI130; DMD UF/SCI131; DMD UF/SCI132; DMD UF/SCI135; DMD UF/SCI135			
	Module Introductory Documents (MGs) as follows: MG UF/ILSC1&3; MG UF/SCI101SC; MG UF/SCI101; MG UF/SCI103; MG UF/BUS107; MG UF/SCI115; MG UF/SCI116; MG UF/SCI130; MG UF/SCI131; MG UF/SCI135; MG UF/SCI125; MG UF/SCI132; MG UF/SCI135			
	Associated teaching aids for a module as required			
	Associated Student Study Guide which acts as a Student Handbook			
	College Policies and Regulations (CPRs)			
Human Resource	Academic Teaching Staff (tutors) – with appropriate qualifications, experience and abilities.  Guest speakers – relevant industries as requested by the College.			
Built Environment	All lectures/classes/labs and small group tutorials are held in the designated UPIC/University of Plymouth class rooms, seminar rooms and dedicated IT laboratories; students are encouraged to use University of Plymouth's library and e-learning facilities for self-directed study; students are encouraged to use their private IT facilities where possible; field-trips will be taken as required.			
E La accestor a	College Portal; University Moodle; Library			
E-learning	Charles Seale-Hayne library			

# University Foundation in Computing, Engineering and Robotics

University Foundation – Computing, Engineering and Robotics (Stream 1; L1E1)						
Core Modules			%	%		
Module Code	Module Name	Credit Points	Examination (closed-book and timed conditions)	Coursework (oral and written communication – small group and individual)		
ILSC1&3	Interactive Learning Skills and Communication 1&3	20	30	70		
BUS107	Principles of ICT	10	25	75		
SCI115	Physics 1	20	90	10		
SCI101SC	Numerical Techniques 1	20	100	-		
SCI30	Research and Referencing	20	-	100		
SCI131	Programming Techniques	20	-	100		
SCI135	Preparation for Computer Science	20	-	100		
SCI102	Numerical Techniques 3	20	100	-		
		150 Credit Poin	ts			

Core Modules		Core Modules	%	%
Module Code	Module Code		Examinatio n (closed-book and timed conditions)	Coursework (oral and written communication – small group and individual)
ILSC1&3	Interactive Learning Skills and Communication 3	20	30	70
BUS107	Principles of ICT	10	25	75
SCI101SC	Numerical Techniques 1	20	100	-
SCI115	Physics 1	20	90	10
SCI103	Numerical Techniques 3	20	100	-
SCI116	Physics 2	20	90	10
SCI30	Research and Referencing	20	-	100
SCI132	Materials and Mechanics	20	100	-
Computing, E	ingineering and Robotics	150 Credit Points		

University Foundation – Computing, Engineering and Robotics (Stream 4; L1E4)									
Core Module	s		%	%					
Module Code	Module Name	Credit Points	Examinatio  n (closed-book and timed conditions)	Coursework (oral and written communication – small group and individual)					
BUS107	Principles of ICT	10	25	75					
ILSC1&3	Interactive Learning Skills and Communication 3	20	30	70					
SCI101SC	Numerical Techniques 1	20	100	-					
SCI115	Physics 1	20	90	10					
SCI103	Numerical Techniques 3	20	100	-					
SCI116	Physics 2	20	90	10					
SCI130	Research and Referencing	20	-	100					
SCI135	Preparation for Computer Studies	20	-	100					
Computing,	Engineering and Robotics		150 Credit Points						

## Management

The University Foundation in Computing, Engineering and Robotics programme is delivered by UPIC on the Drake Circus campus of University of Plymouth. This scenario seeks to provide the necessary resources to ensure that all students enrolled with UPIC are afforded an educational experience that not only provides assimilation into campus and student life but is aligned with the standards and protocols of the University experience.

The programme operates under and according to the general compliance structures determined by the Quality and Standards Office of the Academic Registry Navitas UK. This Office has oversight of all Navitas programmes operating in the UK. Any changes to a programme must be submitted via the normal Navitas UK processes through the Quality and Standards Office.

The general operational management of the programme lies with the Director of Academic and Student Support at UPIC, and by extension the Student Experience Team, who assume overall responsibility for the administrative and implementation functions.

The UPIC Director of Academic and Student Support or nominee is responsible for the day-to-day management of the programme inclusive of attendance monitoring.

UPIC provides additional tutorial support to any student who may require it, to the amount of two (2) extra contact hours per week per enrolled student.

The various Academic Teaching Staff are responsible for the delivery and initial assessment of modules whilst appraisal of delivery and programme content is advised by the UPIC Director of Academic and Student Support or nominee in consultation with the Quality and Standards Office Navitas UK, the Head of the Faculty of Science and Engineering and associated appropriate Programme Directors/Leaders and/or Link Tutor.

#### Monitoring Review

and

Formal review of the University Foundation in Computing, Engineering and Robotics, takes place as an annual review by UPIC with representation from the Faculty of Science and the Engineering. Strategic, logistical and operational issues are developed within the remit of the Academic Advisory Committee (AAC) held on a trimester basis and chaired by University of Plymouth. Progression is determined via the UPIC progression boards (held on a trimester basis). For a details of this review and quality management of this and all UPIC programmes, see, CPR QS09. Informal Review takes place on a regular basis via interface between students, academic services and

	the teaching staff using both student surveys (inclusive of the Annual Navitas Survey) and teaching observations.
Entry Requirements	Standard and approved requirements for academic international benchmark qualifications; see CPR QS3.
	English language for Entry Point 1 is at CEFR level B1; English language for Entry Point 2 is at CEFR level B2 in line with UKVI requirements for RQF 6.
Appendix 1	Intended Learning Outcomes in the constituent modules – table inserted indicating direct mapping of LOs per module.
Appendix 2	Delivery schedule incorporating notional, contact and self-directed hours of study applied to each module and therein the programme.  Appendix 2 = Two Semester
Appendix 3	-
Appendix 4	-
Appendix 5	- See DMDs.

## Appendix 1

## **University Foundation – Computing, Engineering and Robotics**

Development of Programme Learning Outcomes in the Constituent Modules

The table below maps where the LOs of a programme are assessed in the core/constituent modules. It provides an aid to (i) academic staff in understanding how individual modules contribute to the programme aims, (ii) a checklist for quality control purposes, and (iii) a means to help students monitor their own learning, and personal and professional development as the programme progresses.

#### Key:

Learning Outcomes which are assessed as part of a given module ✓✓

Learning outcomes which are not explicitly assessed as part of a given module ✓

## **University Foundation – Computing, Engineering and Robotics**

Pathway Stage 1		Programm	Programme Intended LOs												
		Knowledge and Understanding													
Core Modules	Module Code	A.1	A.2	A.3	A.4	A.5	A.6	A.7	A.8	A.9	A.10	A.11	A.12	A.13	
Interactive Learning Skills and Communication 3	ILSC1&3	<b>\</b>		<b>✓</b>	<b>/</b> /	<b>✓</b>	<b>/</b> /		<b>/</b> /			<b>~</b>	<b>/</b> /	<b>*</b>	
Principles of ICT	BUS107	✓	<b>√</b>	<b>√</b> √	✓				<b>√</b> √		✓	<b>√</b> √	<b>√</b> √	✓	
Numerical Techniques 1	SCI101SC			<b>√</b>		<b>✓</b>			~	<b>√</b> √			~	<b>√</b>	
Numerical Techniques 2	SCI102	<b>√</b>	<b>√</b>	<b>V</b>	<b>~</b>	<b>~</b>	<b>√</b>	<b>√</b> √	<b>~</b>	<b>V</b> V	<b>~</b>	<b>~</b>	<b>//</b>	11	
Numerical Techniques 3	SCI103			<b>V</b>		<b>√</b>			<b>~</b>	<b>/</b> /			<b>~</b>	<b>√</b>	
Physics 1	SCI115		<b>√</b>	✓		<b>√</b> √		<b>//</b>	<b>√</b> √	✓			✓	✓	
Physics 2	SCI116		<b>√</b>	✓		<b>√</b> √		<b>//</b>	<b>√</b> √	✓			✓	✓	
Research and Referencing	SCI130	<b>~</b>	<b>√</b> √	<b>√</b>	<b>//</b>	<b>√</b>	<b>√</b> √		<b>//</b>	<b>√</b> √			<b>~</b>	<b>//</b>	
Programming Techniques	SCI131	<b>~</b>	<b>√</b>	<b>√</b> √	<b>//</b>	<b>√</b>	<b>√</b>	<b>V</b> V	<b>~</b>	<b>√</b> √	<b>√</b> √	<b>//</b>	<b>~</b>	<b>√</b>	
Materials and Mechanics	SCI132	<b>√</b>	<b>√</b>	<b>√</b> √	<b>//</b>	~	<b>√</b>	<b>√</b> √	~	<b>√</b> √	<b>√</b> √	<b>//</b>	~	<b>√</b>	
Preparation for Computer Science	SCI135	<b>√</b>	<b>√</b>	<b>√</b> √	<b>//</b>	<b>√</b>	<b>√</b>	<b>√</b> √	<b>~</b>	<b>√</b> √	<b>/</b> /	<b>//</b>	<b>~</b>	<b>√</b>	

Pathway Stage 1	Pathway Stage 1		me Intended	LOs												
		Intellect	ual Skills				Practical	Practical Skills				Transferable Skills				
Core Modules	Module Code	B.1	B.2	В.3	B.4	B.5	C1	C.2	C.3	C.4	D.1	D.2	D.3	D.4	D.5	
Interactive Learning Skills and Communication 3	ILSC1&3	<b>//</b>	<b>/</b> /	<b>V</b> V	<b>//</b>	<b>//</b>	<b>/</b> /	<b>/</b> /	<b>//</b>		<b>/</b> /	<b>/</b> /	<b>/</b> /	<b>✓</b>	<b>/</b> /	
Principles of ICT	BUS107	<b>//</b>	<b>√</b> √	<b>√</b> √	<b>√</b> √	<b>√</b> √	<b>//</b>	<b>√√</b>	✓	✓	<b>//</b>	<b>√</b> √	<b>√</b> √	✓	<b>√</b> √	
Numerical Techniques 1	SCI101SC	<b>√</b>	<b>√</b>	<b>V</b> V	<b>√</b> √	<b>√</b> √	<b>/</b> /	<b>//</b>			<b>√</b> √	<b>V</b> V	<b>√</b> √	<b>√</b>	<b>/</b> /	
Numerical Techniques 2	SCI102	<b>√</b>	<b>√</b>	<b>/</b> /	<b>√</b> √	<b>√</b> √	<b>/</b> /	<b>//</b>	<b>√</b>	<b>√</b>	<b>√√</b>	<b>√√</b>	√√	<b>√</b>	<b>√</b> √	
Numerical Techniques 3	SCI103	<b>√</b>	<b>√</b>	<b>V</b> V	<b>√</b> √	<b>√</b> √	<b>/</b> /	<b>//</b>			<b>//</b>	<b>V</b> V	<b>√</b> √	<b>√</b>	<b>/</b> /	
Physics 1	SCI115	✓	✓	<b>√</b> √	<b>√</b> √	<b>√</b> √	<b>V</b>	<b>V</b>	✓	<b>√</b> √	<b>//</b>	<b>√</b> √	<b>√</b> √	<b>√</b>	<b>√</b> √	
Physics 2	SCI116	<b>√</b>	<b>✓</b>	<b>//</b>	<b>√</b> √	<b>//</b>	<b>//</b>	<b>//</b>	<b>√</b>	<b>//</b>	<b>//</b>	<b>//</b>	<b>√</b> √	<b>✓</b>	<b>//</b>	
Research and Referencing	SCI130	<b>//</b>	<b>//</b>	<b>//</b>	<b>//</b>	<b>√</b> √	<b>/</b> /	<b>√</b> √	<b>√</b> √	<b>√</b> √	<b>//</b>	<b>//</b>	<b>√</b> √	<b>√</b>	<b>/</b> /	
Programming Techniques	SCI131	<b>√</b>	<b>√</b>	<b>V</b> V	<b>√</b> √	<b>√</b> √	<b>/</b> /	<b>√</b> √	<b>√</b>	<b>√</b>	<b>√</b> √	<b>V</b> V	<b>√</b> √	<b>√</b>	<b>/</b> /	
Materials and Mechanics	SCI132	<b>√</b>	<b>√</b>	<b>V</b> V	<b>√</b> √	<b>√</b> √	<b>/</b> /	<b>√</b> √	✓	<b>√</b>	<b>√</b> √	<b>V</b> V	<b>√</b> √	<b>√</b>	<b>/</b> /	
Preparation for Computer Science	BUS105	<b>√</b>	<b>√</b>	<b>V</b> V	<b>//</b>	<b>√</b> √	<b>/</b> /	<b>√</b> √	<b>√</b>	<b>√</b>	<b>√</b> √	<b>V</b> V	<b>/</b> /	<b>√</b>	<b>/</b> /	

- A.1 The relationship the subject of engineering has to industry, business, human development and lifestyles and its applications to the contemporary world.
- A.2 The principles underlying the use of materials in engineering applications along with their production, use and control.
- A.3 The fundamentals of programming and how it is used and contributes to the engineering process and solves engineering problems.
- A.4 The context and future development of connectivity using mobile communications and the internet at personal, commercial, national and global levels.
- A.5 The theories and key concepts of physical science in an interdisciplinary context.
- **A.6** How engineering contributes to the wider range of social and political issues.
- **A.7** Physical laws and their relevance to engineering principles.
- A.8 How economic and technological developments affect the environment and their management.
- A.9 The application of mathematical techniques to the engineering and logical decision making process.
- A.10 The purpose and processes of object-orientated programming and an introductory understanding of Java.
- **A.11** The application of ICT as a fundamental tool for extracting, sourcing, describing and presenting data and information in a variety of relevant forms, and distributing data and information via a range of channels and formats.

**A.12** The techniques and forms of effective and clear communication in a variety of academic and professional settings in accordance with Level B2 'Independent User' as described by the Council of Europe, see p. 3 of this document for reference.

**A.13** The role and importance of the study of the history of scholarship as a basis to determining a full understanding, correct use of accurate nomenclature and an appreciation of fundamental concepts associated with a subject area.

#### Skills and Attributes

#### Intellectual/Cognitive Skills

- **B.1** Make full use of library and IT search (catalogue and bibliographic) resources.
- **B.2** Apply basic research techniques to sourcing and selecting appropriate academic data and literature.
- B.3 Integrate oral, written, non-verbal and diagrammatic skills to effect clear communication.
- **B.4** Ability to analyse data and various modes of information using appropriate numerical techniques.
- B.5 Ability to begin to evaluate and start to apply, reasoned thinking and supportive evidence collation to conflicting sets of information and academic opinion.

#### Practical skills

- **C.1** Transfer and utilise key skills at a higher level of study.
- C.2 Employ analytical skills and methodologies as a basis to further study.
- C.3 Ability to begin to engage critically with regard to the underlying challenges facing the environment and engineering-based industries.
- C.4 Develop the knowledge and skills to carry out basic laboratory manipulations with reference to University of Plymouth protocols and safety regulations.

#### Transferable skills

- **D.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 and relevancy.
- D.2 Use and clearly communicate discursive, numerical, statistical and diagrammatic ideas, concepts, results and conclusions using appropriate technical and non-technical language, style, structure and form.
- D.3 Application of basic research and referencing techniques to all aspects of study, information collation, information presentation and formulation of academic opinion.
- **D.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.
- D.5 Students will also begin to develop a very good conceptual understanding and evaluation of the main aspects of engineering that can serve them well in their future studies and careers.

Appendix 2
University Foundation – Computing, Engineering and Robotics
Delivery Schedule: hours of study applied to the programme
Semester 1 – Streams 1, 2 and 3 (L1E1, L1E2 & L1E4) Entry Point 1

Week	Total Hours	Total Hours												
	ILSC1&3		BUS107		SCI101SC		SCI115							
	Interactive Learning Skills and Communication 1&3		Principles of ICT		Numerical Techniques 1		Physics 1			Self-directed				
	Contact hours	Self-dir Study	Contact hours	Self-dir study	Contact hours	Self-dir Study	Contact hours	Self-dir study	Contact hours/week	study hours/week				
1	5	10	3	5	5	10	5	10	18	35				
2	5	10	3	5	5	10	5	10	18	35				
3	5	10	3	5	5	10	5	10	18	35				
4	5	10	3	5	5	10	5	10	18	35				
5	5	11	3	5	5	11	5	11	18	38				
6	5	11	3	5	5	11	5	11	18	38				
7	5	11	3	5	5	11	5	11	18	38				
8	5	11	3	5	5	11	5	11	18	38				
9	5	11	3	5	5	11	5	11	18	38				
10	5	11	3	5	5	11	5	11	18	38				
11	5	11	3	5	5	11	5	11	18	38				
12	5	11	3	5	5	11	5	11	18	38				
13 (Exam)	2	10	2	2	2	10	2	10	8	38				
Total hours / module	62	138	38	62	62	138	62	138	224	476				
Notional hours / module	200		100		200		20	00	700					
Credit Points	20		1	0	2	20		20		70				

## Semester 2 (Entry point 2) – Stream 1 (L1E1)

Week	Total Hours	, i								
	SCI130		SCI131		SCI102		SCI135			
	Research and Ref		Programming Tec			· ·		omputer Science		
	Contact	Self-dir	Contact	Self-dir	Contact	Self-dir	Contact	Self-dir		Self-directed
	hours	Study	hours	study	hours	Study	hours	study	Contact hours/week	study hours/week
1	5	10	5	10	5	10	5	10	19	34
2	5	10	5	10	5	10	5	10	19	34
3	5	10	5	10	5	10	5	10	19	34
4	5	10	5	10	5	10	5	10	19	34
5	5	11	5	11	5	11	5	11	19	37
6	5	11	5	11	5	11	5	11	19	37
7	5	11	5	11	5	11	5	11	19	37
8	5	11	5	11	5	11	5	11	19	37
9	5	11	5	11	5	11	5	11	19	37
10	5	11	5	11	5	11	5	11	19	37
11	5	11	5	11	5	11	5	11	19	37
12	5	11	5	11	5	11	5	11	19	37
13 (Exam)	2	10	2	10	2	10	2	10	8	32
Total hours / module	62	138	62	138	62	138	62	138	248	552
Notional hours / module			200		20	200		00	700	
Credit Points	20		2	0	2	0	2	0	80	

# Semester 2 (Entry point 2) – Stream 1 (L1E2)

Week	Total Hours									
	SCI130		SCI132		SCI103		SCI116			
	Research and Referencing		Materials and Mechanics		Numerical Techn	iques 3	Physics 2			
	Contact hours	Self-dir Study	Contact hours	Self-dir study	Contact hours	Self-dir Study	Contact hours	Self-dir study	Contact hours/week	Self-directed study hours/week
1	5	10	5	10	5	10	5	10	20	40
2	5	10	5	10	5	10	5	10	20	40
3	5	10	5	10	5	10	5	10	20	40
4	5	10	5	10	5	10	5	10	20	40
5	5	11	5	11	5	11	5	11	20	44
6	5	11	5	11	5	11	5	11	20	44
7	5	11	5	11	5	11	5	11	20	44
8	5	11	5	11	5	11	5	11	20	44
9	5	11	5	11	5	11	5	11	20	44
10	5	11	5	11	5	11	5	11	20	44
11	5	11	5	11	5	11	5	11	20	44
12	5	11	5	11	5	11	5	11	20	44
13 (Exam)	2	10	2	10	2	10	2	10	8	40
Total hours / module	62	138	62	138	62	138	62	138	248	552
Notional hours / module	20	00	200		20	200		200		800
Credit Points	2	20		0	2	20	20		80	

# Semester 2 (Entry point 2) – Stream 1 (L1E4)

Week	Total Hours	Total Hours											
	SCI130  Research and Referencing		SCI135		SCI103		SCI116						
			Preparation for Co	omputer Science	Numerical Techniques 3		Physics 2						
	Contact	Contact	Contact	Self-dir	Contact	Self-dir	Contact	Self-dir		Self-directed			
	hours	hours	hours	study	hours	Study	hours	study	Contact hours/week	study hours/week			
1	5	10	5	10	5	10	5	10	20	40			
2	5	10	5	10	5	10	5	10	20	40			
3	5	10	5	10	5	10	5	10	20	40			
4	5	10	5	10	5	10	5	10	20	40			
5	5	11	5	11	5	11	5	11	20	44			
6	5	11	5	11	5	11	5	11	20	44			
7	5	11	5	11	5	11	5	11	20	44			
8	5	11	5	11	5	11	5	11	20	44			
9	5	11	5	11	5	11	5	11	20	44			
10	5	11	5	11	5	11	5	11	20	44			
11	5	11	5	11	5	11	5	11	20	44			
12	5	11	5	11	5	11	5	11	20	44			
13	2	10	2	10	2	10	2	10	8	40			
(Exam) Total hours / module	62	138	62	138	62	138	62	138	248	552			
Notional hours / module	2	00	200		20	200		00	800				
Credit Points	20		2	0	20		20		80				