Module Guide

Foundation (FHEQ Level 3) Maths (2Semester) Overview	
Semester One Modules	
SCI100 Interactive Learning Skills and Communication (ILSC)	This module has been designed to be delivered in conjunction with Principles of ICT in order to benchmark and satisfy the progression criteria with regard to student communication and learning skills competency. Focus is put on the relevant transferable and portable skills of effective and professional communication. The course utilizes 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; summarise; and become an effective listener; understand cultural and gender differences; and work effectively in a team and as an individual.
ICT003 Principles of ICT	This Principles of ICT module attempts to deliver an accurate snapshot of the state of ICT as it exists currently, as well as to equip the student with a useful set of skills in the use of common productivity software and Internet based applications. The module introduces candidates to the interesting challenges that ICT presents today and covers many anchor points that may serve as a bridge to their interests and lifestyles. These bridges include the technology in their mobile telephones, computing equipment, home appliances, motor vehicles, shopping, movies and entertainment software. Students shall obtain a good understanding of and ability to apply common applications (Ms Word, Excel and Power Point) to document creation, data collation and presentation whilst students will also be made aware of the benefits of using web based applications for information presentation and will be expected to use IT to communicate information effectively in a variety of forms. Students will learn to identify important considerations involved in the choice and maintenance of a computer system.
SCI101 Analytical Techniques 1	This module has been designed to be delivered in conjunction with the standard International Foundation in the engineering, computing, technology and sciences to support the mathematical entry requirement of the science-based degree schemes of Swansea University. Students will obtain a good understanding of and ability to apply the requisite basic Analytical Techniques, knowledge and skills. A variety of subjects will be covered in this module including financial and quantitative reporting, Rational and irrational numbers, logarithms, Factorization, linear simultaneous equations and quadratic, cubic, polynomial and exponential functions.

SCI116 Physics 2	This module has been designed to be delivered in conjunction with the standard International Foundation programmes in the engineering and technology as well as computer science in order to support the fundamental knowledge base and intellectual skills. The lectures cover topics such as Wave motion, Electric charge, Quantization of charge, Magnets and the earth's magnetic field, Photon interactions and Bohr model.
Semester Two Modules	
BUS105 Statistics	This module aims to develop statistical concepts and involves students in the collection, presentation, and interpretation of numerical data. Statistical methods will be used to address problems encountered in business, industry and government and to discuss the use and abuse of statistics presented in the media. The emphasis in this module is on the meaningful interpretation of statistical information and results. Sources of data include business, sport, medicine, physical science, engineering sciences, biological science and social science. Students shall obtain an understanding of and ability to apply the following to academic and real life queries: tables and graphs of univariate data; relative frequency; cumulative frequency; measures of central tendency for grouped and ungrouped data; effects of change of scale and origin; measures of dispersion; sampling techniques; bivariate data; time series data; moving averages; least squares regression lines; covariance and correlation coefficients; probability of compound, conditional and complementary events; and two-way probabilities to determine conditional probabilities associated with normal distribution. This module also seeks to provide students with an appreciation of the knowledge and skills needed to run a business.
SCI103 Analytical Techniques 3	This module has been designed to be delivered in conjunction with the standard International Foundation in Technology, Computer Science and Mathematics programmes. Students will obtain a good understanding of and ability to apply the requisite basic mathematical techniques, knowledge and skills. Lectures will be taught on a variety of topics including first order differential equations, determinants, Eigenvalues, vectors and Maclaurin's Theorem.
SCI117 Physics 3	This module has been designed to be delivered in conjunction with the standard International Foundation programme in engineering and technology sciences in order to support the fundamental knowledge base and intellectual skills. Lectures will cover a variety of topics including Newton's laws of motion, types of forces in nature, velocity and acceleration, kinetic and potential energy, centre of mass and centre of gravity of a body, Pascal's principle, Avogadro's number, thermodynamics and the electromagnetic spectrum.

SCI107 Fundamentals of Programming	The aim of this module is for students to understand and foster an appreciation of software development, programming concepts and terminology, the evolution of programming languages moving from machine code through to object oriented programming, how to compartmentalise, read, trace, and understand simple code write, test, and debug code to solve a simple problem. Topics taught in weekly lectures shall include algorithms and programmes, outputs and calculations, inputs and strings, loops, arrays and files.

Foundation (FHEQ Level 3) Maths (Entry Point A of 3 Semester) Overview	
Semester One Modules	
SCI100 Interactive Learning Skills and Communication (ILSC)	This module has been designed to be delivered in conjunction with Principles of ICT in order to benchmark and satisfy the progression criteria with regard to student communication and learning skills competency. Focus is put on the relevant transferable and portable skills of effective and professional communication.

The course utilizes 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; summarise; and become an effective listener; understand cultural and gender differences; and work effectively in a team and as an individual. |
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ESP1 English Portfolio 1	The module has been designed to enable students to reach a linguistic level appropriate for academic study on their chosen degree scheme. The aim of English Skills Portfolio is to enable students to develop their English Language level within an academic context, and to equip students with the linguistic and academic skills necessary to perform confidently within their chosen discipline, whilst simultaneously encouraging them to become effective independent learners.
Semester Two Modules	
SCI101 Analytical Techniques 1	This module has been designed to be delivered in conjunction with the standard International Foundation in the engineering, computing, technology and sciences to support the mathematical entry requirement of the science-based degree schemes of Swansea University. Students will obtain a good understanding of and ability to apply the requisite basic Analytical Techniques, knowledge and skills. A variety of subjects will be covered in this module including financial and quantitative reporting, Rational and irrational numbers, logarithms, Factorization, linear simultaneous equations and quadratic, cubic, polynomial and exponential functions.
SCI116 Physics 2	This module has been designed to be delivered in conjunction with the standard International Foundation programmes in the engineering and technology as well as computer science in order to support the fundamental knowledge base and intellectual skills. The lectures cover topics such as Wave motion, Electric charge, Quantization of charge, Magnets and the earth's magnetic field, Photon interactions and Bohr model.
BUS105 Statistics	This module aims to develop statistical concepts and involves students in the collection, presentation, and interpretation of numerical data. Statistical methods will be used to address problems encountered in business, industry and government and to discuss the use and abuse of statistics presented in the media. The emphasis in this module is on the meaningful interpretation of statistical information and results. Sources of data include business, sport, medicine, physical science, engineering sciences, biological science and social science. Students shall obtain an understanding of and ability to apply the following to academic and real life queries: tables and graphs of univariate data; relative frequency; cumulative frequency; measures of central tendency for grouped and ungrouped data; effects of change of scale and origin; measures of dispersion; sampling techniques; bivariate data; time series data; moving averages; least squares regression lines; covariance and correlation coefficients; probability of compound, conditional and complementary events; and two-way probabilities to determine conditional probabilities associated with normal distribution. This module also seeks to provide students with an appreciation of the knowledge and skills needed to run a business.

ESP2 English Portfolio 2	The module has been designed to enable students to reach a linguistic level appropriate for academic study on their chosen degree scheme. The aim of English Skills Portfolio is to enable students to develop their English Language level within an academic context, and to equip students with the linguistic and academic skills necessary to perform confidently within their chosen discipline, whilst simultaneously encouraging them to become effective independent learners.
Semester Three Modules	
SCI103 Analytical Techniques 3	This module has been designed to be delivered in conjunction with the standard International Foundation in Technology, Computer Science and Mathematics programmes. Students will obtain a good understanding of and ability to apply the requisite basic mathematical techniques, knowledge and skills. Lectures will be taught on a variety of topics including first order differential equations, determinants, Eigenvalues, vectors and Maclaurin's Theorem.
SCI117 Physics 3	This module has been designed to be delivered in conjunction with the standard International Foundation programme in engineering and technology sciences in order to support the fundamental knowledge base and intellectual skills. Lectures will cover a variety of topics including Newton's laws of motion, types of forces in nature, velocity and acceleration, kinetic and potential energy, centre of mass and centre of gravity of a body, Pascal's principle, Avogadro's number, thermodynamics and the electromagnetic spectrum.
SCI107 Fundamentals of Programming	The aim of this module is for students to understand and foster an appreciation of software development, programming concepts and terminology, the evolution of programming languages moving from machine code through to object oriented programming, how to compartmentalise, read, trace, and understand simple code write, test, and debug code to solve a simple problem. Topics taught in weekly lectures shall include algorithms and programmes, outputs and calculations, inputs and strings, loops, arrays and files.
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Foundation (FHEQ Level 3) Maths (Entry Point B of 3 Semester) Overview	
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ESP2 English Portfolio 2	The module has been designed to enable students to reach a linguistic level appropriate for academic study on their chosen degree scheme. The aim of English Skills Portfolio is to enable students to develop their English Language level within an academic context, and to equip students with the linguistic and academic skills necessary to perform confidently within their chosen discipline, whilst simultaneously encouraging them to become effective independent learners.

SCI101 Analytical Techniques 1	This module has been designed to be delivered in conjunction with the standard International Foundation in the engineering, computing, technology and sciences to support the mathematical entry requirement of the science-based degree schemes of Swansea University. Students will obtain a good understanding of and ability to apply the requisite basic Analytical Techniques, knowledge and skills. A variety of subjects will be covered in this module including financial and quantitative reporting, Rational and irrational numbers, logarithms, Factorization, linear simultaneous equations and quadratic, cubic, polynomial and exponential functions.
SCI116 Physics 2	This module has been designed to be delivered in conjunction with the standard International Foundation programmes in the engineering and technology as well as computer science in order to support the fundamental knowledge base and intellectual skills. The lectures cover topics such as Wave motion, Electric charge, Quantization of charge, Magnets and the earth's magnetic field, Photon interactions and Bohr model.
Semester Two Modules	
BUS105 Statistics	This module aims to develop statistical concepts and involves students in the collection, presentation, and interpretation of numerical data. Statistical methods will be used to address problems encountered in business, industry and government and to discuss the use and abuse of statistics presented in the media. The emphasis in this module is on the meaningful interpretation of statistical information and results. Sources of data include business, sport, medicine, physical science, engineering sciences, biological science and social science. Students shall obtain an understanding of and ability to apply the following to academic and real life queries: tables and graphs of univariate data; relative frequency; cumulative frequency; measures of central tendency for grouped and ungrouped data; effects of change of scale and origin; measures of dispersion; sampling techniques; bivariate data; time series data; moving averages; least squares regression lines; covariance and correlation coefficients; probability of compound, conditional and complementary events; and two-way probabilities to determine conditional probabilities associated with normal distribution. This module also seeks to provide students with an appreciation of the knowledge and skills needed to run a business.
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SCI103 Analytical Techniques 3	This module has been designed to be delivered in conjunction with the standard International Foundation in Technology, Computer Science and Mathematics programmes. Students will obtain a good understanding of and ability to apply the requisite basic mathematical techniques, knowledge and skills. Lectures will be taught on a variety of topics including first order differential equations, determinants, Eigenvalues, vectors and Maclaurin's Theorem.
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Foundation (FHEQ Level 3) Maths (November Entry) Overview	
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Semester Three Modules	
SCI103 Analytical Techniques 3	This module has been designed to be delivered in conjunction with the standard International Foundation in Technology, Computer Science and Mathematics programmes. Students will obtain a good understanding of and ability to apply the requisite basic mathematical techniques, knowledge and skills. Lectures will be taught on a variety of topics including first order differential equations, determinants, Eigenvalues, vectors and Maclaurin's Theorem.
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| **Semester Three Modules** | |