

## Module Guide

<b>Foundation (FHEQ Level 3) Science Stream 4 (2 Semester) Overview</b>	
<b>Semester One Modules</b>	
<b>SCI100 Interactive Learning Skills and Communication (ILSC)</b>	<p>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.</p> <p>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.</p>
<b>ICT003 Principles of ICT</b>	<p>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.</p>
<b>SCI110 Biology 1</b>	<p>The module will provide students with an introduction to the purpose of Biology and its wider applications – social, economic and environmental user groups. The module will analyse structure, property and functions of principle biological molecules, and will provide students with an understanding of tests used for biochemical modules. Students will learn about the protocols and safety issues surrounding laboratory work, and will be taught how to undertake and write laboratory reporting and reports.</p>

<b>SCI101 Analytical Techniques 1</b>	<p>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.</p>
<b>Semester Two Modules</b>	
<b>BUS105 Statistics</b>	<p>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.</p> <p>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.</p>
<b>SCI111 Biology 2</b>	<p>Students will have the chance to expand on the knowledge they have gained from the first semester's Biology module. The Biology 2 module will explore the functions, components and structure of DNA, genes and genetic diversity and the development of organisms. Students shall obtain and understanding of cells, of their growth and division and will gain insight into stem cells and their use in medicine. Energy, health, organs and disease are discussed widely in the module. Students will gain an understanding of the human digestive system, the effects of health and disease on the body and how vaccinations and antibodies work. The module provides students with an insight into respiratory and circulatory systems and various transport systems in plants and animals.</p>

<p><b>SCI120 Environmental Awareness</b></p>	<p>This module has been designed to be delivered in conjunction with the standard International Foundation programmes in engineering and technology as well as computer science in order to support the fundamental knowledge base and intellectual skills. students shall obtain a good understanding of and ability to apply the requisite knowledge and skills with regard to the biogeochemical context, engineering and ICT design influences in response to certain environmental issues as well as sustainable development in the UK and internationally. Lectures will be conducted on a variety of topics including the biogeochemical cycle, global systems and their current circulations, pollutants, climate change: mitigation or adaptation, sustainability in engineering and environmental management.</p>
<p><b>SCI130 Chemistry</b></p>	<p>This module has been designed to be delivered in conjunction with the standard Stage 1 programmes in the engineering, computer science and mathematics in order to support the fundamental knowledge in chemistry and intellectual skills requisite for successful completion of the prescribed degree schemes of Swansea University. Topics will include atomic structure, chemical measurements and stoichiometry, reaction kinetics and aqueous systems.</p>

<b>Foundation (FHEQ Level 3) Science Stream 4 (Entry Point A of 3 Semester) Overview</b>	
<b>Semester One Modules</b>	
<b>SCI100 Interactive Learning Skills and Communication (ILSC)</b>	<p>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.</p> <p>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.</p>
<b>ICT003 Principles of ICT</b>	<p>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.</p>
<b>ESP 1 English Portfolio 1</b>	<p>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.</p>

<b>Semester Two Modules</b>	
<b>SCI110 Biology 1</b>	The module will provide students with an introduction to the purpose of Biology and its wider applications – social, economic and environmental user groups. The module will analyse structure, property and functions of principle biological molecules, and will provide students with an understanding of tests used for biochemical modules. Students will learn about the protocols and safety issues surrounding laboratory work, and will be taught how to undertake and write laboratory reporting and reports.
<b>BUS105 Statistics</b>	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.
<b>HUM102 Composition and Style</b>	The Composition and Style module aims to provide students with a structured introduction to all aspects and stages of the academic writing process. It is designed to allow students the knowledge required for the preparation and completion of written assignments within University parameters. This includes research and note-taking; structuring work; drafting and redrafting; editing and proof-reading; achieving an effective academic style; referencing; writing effectively under exam conditions; using feedback on your written work and grammar and punctuation. In addition the module also provides a supportive academic and pastoral framework for students.
<b>ESP2 English Portfolio 2</b>	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.

<b>Semester Three Modules</b>	
<b>SCI111 Biology 2</b>	Students will have the chance to expand on the knowledge they have gained from the first semester's Biology module. The Biology 2 module will explore the functions, components and structure of DNA, genes and genetic diversity and the development of organisms. Students shall obtain and understanding of cells, of their growth and division and will gain insight into stem cells and their use in medicine. Energy, health, organs and disease are discussed widely in the module. Students will gain an understanding of the human digestive system, the effects of health and disease on the body and how vaccinations and antibodies work. The module provides students with an insight into respiratory and circulatory systems and various transport systems in plants and animals.
<b>SCI120 Environmental Awareness</b>	This module has been designed to be delivered in conjunction with the standard International Foundation programmes in engineering and technology as well as computer science in order to support the fundamental knowledge base and intellectual skills. students shall obtain a good understanding of and ability to apply the requisite knowledge and skills with regard to the biogeochemical context, engineering and ICT design influences in response to certain environmental issues as well as sustainable development in the UK and internationally. Lectures will be conducted on a variety of topics including the biogeochemical cycle, global systems and their current circulations, pollutants, climate change: mitigation or adaptation, sustainability in engineering and environmental management.
<b>SCI130 Chemistry</b>	This module has been designed to be delivered in conjunction with the standard Stage 1 programmes in the engineering, computer science and mathematics in order to support the fundamental knowledge in chemistry and intellectual skills requisite for successful completion of the prescribed degree schemes of Swansea University. Topics will include atomic structure, chemical measurements and stoichiometry, reaction kinetics and aqueous systems.
<b>ESP3 English Portfolio 3</b>	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.

<b>Foundation (FHEQ Level 3) Science Stream 4 (Entry Point B of 3 Semester) Overview</b>	
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<b>SCI110 Biology 1</b>	<p>The module will provide students with an introduction to the purpose of Biology and its wider applications – social, economic and environmental user groups. The module will analyse structure, property and functions of principle biological molecules, and will provide students with an understanding of tests used for biochemical modules. Students will learn about the protocols and safety issues surrounding laboratory work, and will be taught how to undertake and write laboratory reporting and reports.</p>
<b>BUS105 Statistics</b>	<p>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.</p>

<b>ESP2 English Portfolio 2</b>	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.
<b>Semester Two Modules</b>	
<b>SCI111 Biology 2</b>	Students will have the chance to expand on the knowledge they have gained from the first semester's Biology module. The Biology 2 module will explore the functions, components and structure of DNA, genes and genetic diversity and the development of organisms. Students shall obtain and understanding of cells, of their growth and division and will gain insight into stem cells and their use in medicine. Energy, health, organs and disease are discussed widely in the module. Students will gain an understanding of the human digestive system, the effects of health and disease on the body and how vaccinations and antibodies work. The module provides students with an insight into respiratory and circulatory systems and various transport systems in plants and animals.
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<b>ESP3 English Portfolio 3</b>	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.
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<b>Foundation (FHEQ Level 3) Science Stream 4 (November Entry) Overview</b>	
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<b>Semester Three Modules</b>	
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