ZRCH H1101: Research Methods 1

Module Title:	Research Methods 1
Language of Instruction:	English

Credits:	5

NFQ Level:	6

Module Delivered In	No Programmes

Teaching & Learning Strategies:	This module will be taught in three theory classes of one hour duration and two computer lab practicals of one hour each for 15 weeks. Students will be expected to complete problem-sheets to re-enforce learning. Relevant examples, notes and self testing problems will be available on Blackboard. Delivery of the computing module will involve individual and group practical exercises.

Module Aim:	The aim of this module is to provide students with a good knowledge of basic statistical methods and develop their practical skills in computing to support other subjects and for use in a professional environment.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Perform and interpret scientific calculations as required in other subjects.
LO2	Apply statistical tools to summarise data and explore the relationship between variables.
LO3	Demonstrate academic writing skills.
LO4	Contribute as an effective team member to successful completion of a group project using ICT tools to represent, share and present information on a scientific topic.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
No requirements listed

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Module Content & Assessment

Indicative Content
Theory: Scientific Calculations Scientific notation, significant figures, logarithms and pH values. Units of measurement and conversions.
Theory: Statistics Types of data. Tabular and graphical presentation of data. Measures of central tendency and dispersion.
Theory: Sampling Sampling techniques and sampling distributions.
Theory: Probability Basic probability, diagnostic tests and the Normal Distribution.
Theory: Measures and Tests of Association Pearson's correlation coefficient and Spearman's rank correlation coefficient. Linear Regression and Scatter plots.
Theory: Academic Writing Academic Writing.
Practical: Information & Communications Technology ICT Theory. Referencing, Document Sharing, Word Processing and Presentations.
Practical: Data Analysis Excel and Introduction to SPSS.

Assessment Breakdown	%
Continuous Assessment	10.00%
Practical	50.00%
End of Module Formal Examination	40.00%

Special Regulation
Students must achieve a minimum grade (35%) in both the practical/CA and final examination.

Continuous Assessment

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Examination	In-class assessments.	1,2	10.00	n/a

No Project

Practical

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Practical/Skills Evaluation	Computing assignments and in-class exam.	4	35.00	Sem 2 End
Practical/Skills Evaluation	Academic Writing assignments.	3	15.00	n/a

End of Module Formal Examination

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Formal Exam	2 hour examination.	1,2	40.00	End-of-Semester

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

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Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Lecture	30 Weeks per Stage	1.50
Laboratory	30 Weeks per Stage	1.00
Estimated Learner Hours	30 Weeks per Stage	1.33
	Total Hours	115.00