

<b>Module Title:</b>	Introduction to Data Analytics
<b>Language of Instruction:</b>	English
<b>Credits:</b>	5
<b>NFQ Level:</b>	6
<b>Module Delivered In</b>	<a href="#">3 programme(s)</a>
<b>Teaching &amp; Learning Strategies:</b>	A mixture of traditional lectures, problem solving tutorials and laboratory work
<b>Module Aim:</b>	To provide the student with a competence and understanding of the fundamental mathematics required to function in the field of Interactive Digital Media Design.
<b>Learning Outcomes</b>	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	identify common functions from their graphs;
LO2	organise, present and statistically analyse data;
LO3	perform appropriate numerical techniques to model patterns identified in large data sets;
LO4	write computer programmes to further explore the concepts of this syllabus.
<b>Pre-requisite learning</b>	
<b>Module Recommendations</b>	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
<b>Incompatible Modules</b>	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
<b>Co-requisite Modules</b>	
No Co-requisite modules listed	
<b>Requirements</b>	
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

## Module Content & Assessment

### Indicative Content

#### Functions and Graphs

Cartesian product of sets, relations, functions, graphs of common functions, transformations, composition and inverse of functions.

#### Data Presentation and Statistics

Frequency distributions, histograms, frequency curves, measures of central tendency and dispersion, normal distribution.

#### Numerical Techniques

Scattergraphs, root mean-square error, the normal equations, linear and non-linear fitting, forecasting.

Assessment Breakdown	%
Continuous Assessment	20.00%
Practical	30.00%
End of Module Formal Examination	50.00%

### Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Examination	30 minute multiple choice class test	1	10.00	Week 6
Examination	30 minute multiple choice class test	2,3	10.00	Week 12

No Project

### Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	students given tasks which involve implementing in computer code the concepts and skills encountered	1,2,3,4	30.00	Every Week

### End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	Closed book examination based on all learning outcomes	1,2,3	50.00	End-of-Semester

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

**Module Workload**

<b>Workload: Full Time</b>		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	12 Weeks per Stage	2.00
Practicals	12 Weeks per Stage	2.00
Independent Learning Time	12 Weeks per Stage	5.42
Tutorial	12 Weeks per Stage	1.00
Total Hours		125.00

**Module Delivered In**

Programme Code	Programme	Semester	Delivery
CW_KCCGD_B	<a href="#">Bachelor of Science (Honours) in Computer Games Development</a>	2	Mandatory
CW_KCIAD_B	<a href="#">Bachelor of Science (Honours) in Computing in Interactive Digital Art and Design</a>	2	Mandatory
CW_KCIAD_D	<a href="#">Bachelor of Science in Computing in Interactive Digital Art and Design</a>	2	Mandatory

Discussion Note:	TEST
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