

Module Title:	Surveying
Language of Instruction:	English
Credits:	5
NFQ Level:	6
Module Delivered In	1 programme(s)
Teaching & Learning Strategies:	Lectures Practical's Private study Blackboard
Module Aim:	The aims of the module are: (1) to develop a knowledge of basic surveying techniques (2) to train the student in field levelling procedures (3) to introduce the student to surveying software packages.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	to demonstrate use of the engineering level competently in the area of construction & for collection of data for preparation of contour maps & longitudinal sections
LO2	to demonstrate knowledge of & apply surveying techniques for collecting surveying data in basic linear surveying of small sites
LO3	to demonstrate knowledge of & use surveying software packages to produce contour maps and longitudinal sections.
Pre-requisite learning	
Module Recommendations	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements	
<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

(1) Linear Surveying (8 hour lectures, 5 hour practical's)

(a) Field Procedures (b) Field Obstacles (c) Booking Procedures (d) Ordnance Survey Mapping (e) Building Surveying (f) Measured Survey Drawing of Entrance Gates to Institute of Technology, Carlow (g) Plan, Section and Elevation of Small Single Storey Domestic Dwelling.

(2) Area Computation (6 hours lectures)

(a) By triangulation (b) Simpsons Rule for Area Evaluation (c) Trapezoidal Rule for area evaluation (d) Cut and Fill Calculations

(3) Surveying for Height (14 hours lectures, 20 hours practical)

(a) Ordnance datum and Bench Marks (b) Optical Levels (c) Field Procedures (d) Permanent Adjustments (e) Longitudinal Sections (f) Contour Maps (g) Use of level for Building work, drainage and sewage

(4) Computer Application (2 hour lecture, 5 hours application)

(a) Introduction to software packages for production of Contour maps, sections and digitised maps

Assessment Breakdown	%
Continuous Assessment	10.00%
Practical	30.00%
End of Module Formal Examination	60.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Examination	10% 1 on 1 Demonstration of Instrument Use Capability	1,2,3	10.00	n/a

No Project

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	No Description	1,2,3	30.00	n/a

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	No Description	1,2,3	60.00	End-of-Semester

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

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	30 Weeks per Stage	0.83
Practicals	30 Weeks per Stage	1.17
Estimated Learner Hours	30 Weeks per Stage	3.00
Total Hours		150.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_CMBSE_D	Bachelor of Science in Construction Management with Buildings Services	1	Mandatory