

Module Title:	Surveying
Language of Instruction:	English
Credits:	5
NFQ Level:	6
Module Delivered In	No Programmes
Teaching & Learning Strategies:	Learning shall be through: lectures, Demonstrations, Tutorials & Practicals. Intensive group studio based learning, Site Visits to live projects and Site Surveys.
Module Aim:	<p>Aims 1.To introduce the students to the process of carrying out an accurate measured survey of an existing building. To introduce students to the preparation of survey / record drawings. 2.To introduce the student to the concept and process of a physical conditions report. 3.To introduce the student to the process of setting up an engineer's / dumpy level.To check the accuracy of the level by using the two peg test. 4.To introduce the student to the principles of Maps, scale, ordnance survey, GPS, GIS. To introduce the concepts and processes involved in levelling and calculating ground/ reduced levels on a site. To utilise this data to create and calculate contours drawings for the site. 5.To introduce the student to the process and techniques involved in setting out a site boundary, setting out a site grid and set out the foundations of a building on a site. 6.To calculate irregular areas and volumes. 7.To introduce the student to the use of EDM, Theodolites and Total stations.</p>
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	To prepare an accurate measured survey of an existing building and create a record or survey drawing.
LO2	To produce a physical conditions report in word format.
LO3	To have the ability to set up an engineer's / dumpy level. To check the accuracy of the level by using the two peg test.
LO4	To understand the principles of Maps, scale, ordnance survey, GPS, GIS. To understand and apply the principles of levelling and calculating ground/ reduced levels on a site. To utilise this data to create and calculate contour drawings for a site.
LO5	To be able use the principle and techniques required to set out a site boundary, a site grid and also the foundations of a building on site.
LO6	To calculate irregular areas and volumes.
LO7	Understand the use of EDM, Theodolites and Total stations.
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. Preparation of accurate measured survey of an existing building and create a record or survey drawing.
2. Principles used to produce a physical conditions report in word format.
3. Principles involved in setting up an engineer's / dumpy level. To check accuracy by using the two peg test.
4. To understand the principles of Maps, scale, ordnance survey, GPS, GIS. To understand and apply the principles of levelling and calculating ground/ reduced levels on a site. To utilise this data to create and calculate contour drawings for a site.
5. To be able use the principle and techniques required to set out a site boundary, a site grid and also the foundations of a building on site.
6. To calculate irregular areas and volumes.
7. Understand the principles and use of EDM, Theodolites and Total stations.

Assessment Breakdown	%
Continuous Assessment	10.00%
Project	15.00%
Practical	15.00%
End of Module Formal Examination	60.00%

Continuous Assessment				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Written Report	Term 2. 3. Calculate a series of irregular volumes and areas. Prepare a written and typed report that shows calculation methods for the set questions.	4,6	5.00	n/a
Written Report	Term 2.4. Prepare a written and typed report that investigates the potential use of EDM, Theodolites and Total stations. Source relevant equipment. Demonstrate an understanding of how these instruments are used in practice.	4,5,7	5.00	n/a

Project				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Term 1. 1. Complete a measured survey for a given building. Prepare a series of survey drawings of the existing building. Produce a typed and illustrated conditions report on the building fabric.	1,2,3,4	10.00	n/a
Project	Term 2. 1. Contour Survey. Create a site grid with reduced levels. Mathematically calculate contours for the site, to create an accurate topographical survey of the site.	3,4,5,6	5.00	n/a

Practical				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Term 1.2 Set up a dumpy / engineers level and write a report to explain the process. Complete a two peg test and write up a report to explain the process	3	5.00	n/a
Practical/Skills Evaluation	Term 1.3. Complete a level survey for a given site. Calculate reduced / ground levels for a given set of points. Produce a series of sketches and scaled drawings that	3,4	5.00	n/a
Practical/Skills Evaluation	Term 2. 2. Site setting out. Set out a site boundary. Set out the building line. Set out the foundations for a given building. Write a report to explain each step of the process. Explain the use of profiles and boning rods. Calculate the area of the site.	4,5,6	5.00	n/a

End of Module Formal Examination				
<i>Assessment Type</i>	<i>Assessment Description</i>	<i>Outcome addressed</i>	<i>% of total</i>	<i>Assessment Date</i>
Formal Exam	Final Exam. The examination will be formed by a series of questions based on the learning outcomes 1,2,3,4,5,6 &7.	1,2,3,4,5,6,7	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>
Laboratory	30 Weeks per Stage	0.33
Lecture	30 Weeks per Stage	0.67
Practicals	30 Weeks per Stage	0.50
Tutorial	30 Weeks per Stage	0.50
Estimated Learner Hours	30 Weeks per Stage	5.00
Total Hours		210.00

