

Module Title:	Basic Mathematics
Language of Instruction:	English
Credits:	5
NFQ Level:	6
Module Delivered In	4 programme(s)
Teaching & Learning Strategies:	<p>This module will be delivered using a learner-centred approach with a strong emphasis on the practical use of mathematics in day-to-day agriculture. A variety of teaching and learning strategies will be used such as lecture, computer practical, workshop and classroom assessment techniques. A responsibility for learning will be fostered in the learners. To develop confidence, class participation will be encouraged and collaborative work will be instrumental in nurturing team building amongst the group. Special attention will be paid, not only to the 'How' of mathematics, but also the 'Why?' so that learners see the real relevance, importance and utility of studying this subject to their future work in agriculture. Lecture Computer Practicals Case-studies Group discussions and group activities</p>
Module Aim:	<p>The module aims to provide the learner with a solid understanding of the mathematics that they will be using in their future work in agricultural production. This basic grounding will also facilitate and complement understanding of other subjects in their programme that require an understanding of mathematics.</p>
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Perform basic, scientific and business calculations with applications in farming and farm development.
LO2	Compute areas and volumes of farm structures and feed stores.
LO3	Analyse, present and interpret statistical data.
LO4	Demonstrate an ability to use computer and mobile device software to perform calculations such as rations, farm inputs and outputs.
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
Basic Mathematics • Arithmetic, exponents, percentages, logarithms, scientific notation and measurement systems.
Use of Mathematics • Ratio and proportion, percentage strength calculations and business ratios
Basic Statistics • Present data in tabular and graphical form and calculate and interpret measures of central tendency and dispersion.
Calculating Areas and Volumes • Calculate simple areas and volumes using geometry and trigonometry.
Use of Computers in Practical Farming • Computing – use of computers for all of the above.

Assessment Breakdown	%
Continuous Assessment	60.00%
End of Module Formal Examination	40.00%

Continuous Assessment				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	In-Class assessments	1,2,3,4	30.00	n/a
Practical/Skills Evaluation	Computer practicals	1,2,3,4	20.00	n/a
Case Studies	Case Studies in use of computers and calculators. Demonstrations and Group Discussion	1,2,3	10.00	n/a

No Project

No Practical

End of Module Formal Examination				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	Terminal Examination	1,2,3,4	40.00	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	12 Weeks per Stage	2.00
Practicals	12 Weeks per Stage	1.00
Independent Learning	12 Weeks per Stage	3.00
Total Hours		72.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_SWOAG_B	Bachelor of Science (Honours) in Organic Agriculture	1	Mandatory
CW_SWSFM_B	Bachelor of Science (Honours) in Sustainable Farm Management and Agribusiness	1	Mandatory
CW_SWOAG_D	Bachelor of Science in Organic Agriculture	1	Mandatory
CW_SWSFM_D	Bachelor of Science in Sustainable Farm Management and Agribusiness	1	Mandatory