

<b>Full Title:</b>	Mathematics and Computing
<b>Module Code:</b>	CAPP S6003
<b>Credits:</b>	5
<b>Valid From:</b>	Semester 1 - 2013/14 ( September 2013 )
<b>Module Delivered in</b>	<a href="#">2 programme(s)</a>
<b>Module Description:</b>	This module covers the basic concepts, techniques and operations in mathematics which are of particular relevance to Agriculture. Students will also gain a good understanding of computer applications such as Word, Excel, Powerpoint and the Internet and will be introduced to a range of farm software packages.
<b>Learning Outcomes:</b>	
<i>On successful completion of this module the learner should be able to</i>	
<ol style="list-style-type: none"> <li>1. Use a range of computer software packages including a word processing package, spreadsheets, databases and Powerpoint.</li> <li>2. Use a range of farm software packages e.g. Kingswood, IFC, ICBF and Profit Monitor.</li> <li>3. Browse the internet and communicate using email</li> <li>4. Perform calculations using basic arithmetic rules of fractions, decimals, percentages ratio and proportion and Scientific notation. Perform conversions between Metric and Imperial units.</li> <li>5. Calculate the areas, volumes and capacities of common geometric shapes.</li> <li>6. Use Trigonometry to measure areas, heights and distances. Use of Sine and Cosine rule.</li> <li>7. Summarise, analyse and interpret mathematical and statistical data of relevance to agricultural science</li> </ol>	

**Module Content & Assessment**

<b>Indicative Content</b>
<b>Windows environments</b> Work with programs Manage files and folders. Creating documents with tables, headers and footers etc. with 'Word'
<b>Spreadsheets and Databases</b> Creating worksheets with formulae, functions, charts and graphs. Submitting a database with queries and reports, e.g. with Access
<b>Internet</b> Navigate the Web and communicate using email.
<b>Power Point</b> Prepare and present a slide show.
<b>Farm software</b> Operate a range of farm software packages
<b>Mathematics</b> Fractions, Decimals, Percentages. Ratio and Proportion. Discounts Calculations for large and small numbers. Scientific notation. Use of Indices. Use of Logarithms. Lengths, Areas and Volumes of common geometric figures. Land measurement. Conversion from Imperial to Metric units. Trigonometric ratios. Sine and Cosine rule
<b>Financial Mathematics</b> Interest Calculation, Depreciation, investment, loan payments. Price, quantity and volume indices with particular reference to agricultural data. Consumer Price Index.
<b>Elementary Statistics</b> Census and survey. Data collection methods. Presentation of data – graphs and charts. Measures of average and measures of deviation. Correlation and regression.

<b>Assessment Breakdown</b>	<b>%</b>
Course Work	50.00%
End of Module Formal Examination	50.00%

**Full Time**

<b>Course Work</b>							
<i>Assessment Type</i>	<i>Assessment Description</i>	<i>Outcome addressed</i>	<i>% of total</i>	<i>Marks Out Of</i>	<i>Pass Marks</i>	<i>Assessment Date</i>	<i>Duration</i>
Practical/Skills Evaluation	Computing Applications	1,2,3	40.00	0	0	Every Week	0
Class Test	Mathematics	4,5	5.00	0	0	Week 5	0
Class Test	Mathematics	6,7	5.00	0	0	Week 9	0

No Project

No Practical

<b>End of Module Formal Examination</b>							
<i>Assessment Type</i>	<i>Assessment Description</i>	<i>Outcome addressed</i>	<i>% of total</i>	<i>Marks Out Of</i>	<i>Pass Marks</i>	<i>Assessment Date</i>	<i>Duration</i>
Formal Exam	End-of-Semester Final Examination	4,5,6,7	50.00	0	0	End-of-Semester	0

DKIT reserves the right to alter the nature and timings of assessment

**Module Workload & Resources**

**Workload: Full Time**

Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	Mathematics	2.00	Every Week	2.00
Practical	Computing Applications	2.00	Every Week	2.00
Tutorial	Mathematics	2.00	Every Week	2.00
Independent Study	No Description	3.00	Every Week	3.00
Total Weekly Learner Workload				9.00
Total Weekly Contact Hours				6.00

**This course has no Part Time workload.**

**Resources**

*Recommended Book Resources*

**2007, *Calculations (GM5307)*, 8th Ed., Teagasc Modular Training Programmes**

**Parsons et al 2010, *Computer Concepts and Microsoft Office*, Cengage**

**Croft, A. & Davison, R. 2006, *Foundation Mathematics*, 4th Ed.**

*This module does not have any article/paper resources*

*Other Resources*

**Link: *Library Catalogue***  
<http://tinyurl.com/mju9fle>

**Module Delivered in**

Programme Code	Programme	Semester	Delivery
DK_SAGRI_8	<a href="#">Bachelor of Science (Honours) in Agriculture</a>	1	Mandatory
DK_SAGRI_C	<a href="#">Higher Certificate in Science in Agriculture</a>	1	Mandatory