



**CORPORATE AND ACADEMIC SERVICES**

**MODULE SPECIFICATION**

Part 1: Basic Data					
Module Title	Emerging Issues in Agriculture				
Module Code	UILXK3-30-3	Level	3	Version	1
Owning Faculty	Hartpury	Field	Animal and Land Science		
Contributes towards	BSc (Hons) Agriculture, Conservation and Sustainable Management				
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	Standard
Pre-requisites	None		Co- requisites	None	
Excluded Combinations	None		Module Entry requirements	None	
Valid From	01 September 2013		Valid to	01 September 2019	

<b>CAP Approval Date</b>	29 May 2013
--------------------------	-------------

Part 2: Learning and Teaching	
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ol style="list-style-type: none"> <li>1 Demonstrate an in-depth knowledge and understanding of a range of recent developments in agriculture (A, B)</li> <li>2 Critically evaluate a range of recent developments in agriculture for their long-term sustainability and/or contribution to food security (A).</li> <li>3 Assess the economics and practicality of a range of recent developments in agriculture (A, B).</li> <li>4 Communicate effectively technical information about areas of current agricultural research into innovative systems of production (A, B).</li> <li>5 Orally discuss selected developments in agricultural science in such a way as to enable understanding and engagement by academic, specialist and non-specialist audiences (B).</li> </ol>
Syllabus Outline	<p>Given that this module deals with current issues and developments, it is difficult to specify topics but the following subjects are likely to be covered:</p> <ol style="list-style-type: none"> <li>1 Precision agriculture using GIS, soil and yield mappings;</li> <li>2 Genome technology in crop and animal production;</li> <li>3 Spatial dimensions of rural development;</li> <li>4 Factory farming v free range: the influence of animal welfare;</li> <li>5 Commercial synthetic biology production and its threat to crops;</li> <li>6 Soil-less agriculture, the development of hydroponics and aeroponics;</li> <li>7 Alternative crops including fibre crops, energy crops and novel uses for traditional crops;</li> <li>8 Biofuel production from crops, algae and seaweed;</li> <li>9 Impact of climate change on food production.</li> </ol>

Contact Hours	<p>Indicative delivery modes:</p> <table border="0"> <tr> <td>Lectures, guided learning, seminars etc</td> <td style="text-align: right;">66</td> </tr> <tr> <td>Self directed study</td> <td style="text-align: right;">0</td> </tr> <tr> <td>Independent learning</td> <td style="text-align: right;">234</td> </tr> <tr> <td><b>TOTAL</b></td> <td style="text-align: right;"><b>300</b></td> </tr> </table>	Lectures, guided learning, seminars etc	66	Self directed study	0	Independent learning	234	<b>TOTAL</b>	<b>300</b>										
Lectures, guided learning, seminars etc	66																		
Self directed study	0																		
Independent learning	234																		
<b>TOTAL</b>	<b>300</b>																		
Teaching and Learning Methods	<p><b>Scheduled Learning</b> May include lectures, seminars, tutorials, workshops; external visits and speakers. It is in these sessions that the students will receive the theoretical underpinning knowledge pertaining to the module.</p> <p><b>Independent Learning</b> May include hours engaged with essential reading, case study preparation, assignment preparation and completion. These sessions constitute an average time per level as indicated in the table below. Scheduled sessions may vary slightly depending on the module choices you make.</p> <p><b>Virtual Learning Environment (VLE)</b> This module is supported by a VLE where students will be able to find all necessary module information. Direct links to information sources will also be provided from within the VLE.</p>																		
Key Information Sets Information	<p>Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, which is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for.</p> <p><b>Key Information Set – Module Data</b></p> <p>Number of credits for this module <span style="float: right; border: 1px solid black; padding: 2px;">30</span></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;">Hours to be allocated</th> <th style="width: 25%;">Scheduled learning and teaching study hours</th> <th style="width: 20%;">Independent study hours</th> <th style="width: 20%;">Placement study hours</th> <th style="width: 20%;">Allocated Hours</th> </tr> </thead> <tbody> <tr> <td>300</td> <td>66</td> <td>234</td> <td>0</td> <td>300</td> </tr> </tbody> </table> <p>The table below indicates as a percentage the total assessment of the module which constitutes a:</p> <ol style="list-style-type: none"> <li>1 <i>Written Exam</i>: Unseen written exam, open book written exam, in-class test.</li> <li>2 <i>Coursework</i>: Written assignment or essay, report, dissertation, portfolio, project.</li> <li>3 <i>Practical Exam</i>: Oral Assessment and/or presentation, practical skills assessment, practical exam.</li> </ol> <p>Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the Assessment section of this module description:</p> <p>Total assessment of the module:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 60%;">Written exam assessment percentage</td> <td style="border: 1px solid black; text-align: center;">70%</td> </tr> <tr> <td>Coursework assessment percentage</td> <td style="border: 1px solid black; text-align: center;">0%</td> </tr> <tr> <td>Practical exam assessment percentage</td> <td style="border: 1px solid black; text-align: center;">30%</td> </tr> <tr> <td></td> <td style="text-align: center;">100%</td> </tr> </table>	Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours	300	66	234	0	300	Written exam assessment percentage	70%	Coursework assessment percentage	0%	Practical exam assessment percentage	30%		100%
Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours															
300	66	234	0	300															
Written exam assessment percentage	70%																		
Coursework assessment percentage	0%																		
Practical exam assessment percentage	30%																		
	100%																		

Reading Strategy	<p><b>Essential Reading</b> It is essential that students read one of the many texts on research methods available through the Library. Module guides will also reflect the range of reading to be carried out.</p> <p><b>Further Reading</b> Students are expected to identify all other reading relevant to their chosen research topic for themselves. They will be encouraged to read widely using the library catalogue, a variety of bibliographic and full text databases, and Internet resources. Many resources can be accessed remotely.</p> <p><b>Access and Skills</b> Formal opportunities for students to develop their library and information skills are provided within the induction period and student skills sessions. Additional support is available through online resources. This includes interactive tutorials on finding books and journals, evaluation information and referencing. Sign up workshops are also offered.</p>
Indicative Reading List	<p>The following list is offered to provide validation panels/accrediting bodies with an indication of the type and level of information students may be expected to consult. As such, its currency may wane during the life span of the module specification. However, as indicated above, CURRENT advice on readings will be available via other more frequently updated mechanisms, including the module guide.</p> <ol style="list-style-type: none"> <li>1 BCPC (Current Edition) <i>Biological control introductions: opportunities for improved crop production</i>. British Crop Protection Council.</li> <li>2 Dragan, A.K. and Tisdell, C., eds. (Current Edition) <i>Sustainable agriculture and environment: globalisation and impact of trade liberalisation</i>. Cheltenham: Edward Elgar.</li> <li>3 Harris, D. (Current Edition) <i>The illustrated guide to hydroponics</i>. London: New Holland Press.</li> <li>4 Morgan, M. and Ess, D. (Current Edition) <i>The precision farming guide for agriculturalists</i>. Illinois: John Deere.</li> <li>5 National Research Council (Current Edition) <i>Precision agriculture in the 21st century – geospatial and information technologies in crop management</i>. National Academy Press.</li> <li>6 NRC (Current Edition) <i>Precision agriculture in the 21st century. Geospatial and information technologies in crop management</i>. Washington DC: National Academy Press.</li> <li>7 Pinstrup-Anderson, P and Schioler, E. (Current Edition) <i>Seeds of contention. World hunger and global controversy over GM crops</i>.</li> <li>8 Roling, N. G. and Wagemakers, M. A. E., eds. (Current Edition) <i>Facilitating sustainable agriculture</i>. Cambridge: Cambridge University Press.</li> </ol> <p><b>Journals:</b></p> <ol style="list-style-type: none"> <li>1 Agricultural Systems</li> <li>2 Current Advances in Genetics and Molecular Biology</li> <li>3 Experimental Agriculture</li> <li>4 Aspects of Applied Biology</li> <li>5 Trends in Biotechnology</li> </ol>

### Part 3: Assessment

Assessment Strategy	<p>The assessment strategy will include an open book written examination and an oral examination, both of which will be held in the end of semester assessment period, but with the oral examination following the written examination.</p> <p>This strategy has been chosen to enable students to research the topics presented in the lecture series more widely and bring the evidence of that research into a controlled conditions written examination where they can construct critically evaluative answers to the questions posed. The duration of the exam gives students sufficient time to incorporate the knowledge they have acquired into a critically evaluative narrative. The oral examination also allows students to be critically evaluative but communicate their evaluation in a different format. This format also allows for self-reflection as an evaluative tool, not only in relation to the lecture series content, but in the students own approach to researching the lecture content, which is why it is important that the oral examination follows the written examination.</p> <p>Opportunities for formative assessment and feedback will occur during Q&amp;A sessions in the lecture series and also in a review session at the end of the lecture series. The oral examination provides an opportunity for some general feedback on the written examination, to enable the student to self-reflect their approach to that examination.</p> <p>In line with the College's commitment to facilitating equal opportunities, a student may apply for alternative means of assessment if appropriate. Each application will be considered on an individual basis taking into account learning and assessment needs. For further information regarding this please refer to VLE.</p>
---------------------	--

Identify final assessment component and element	Oral examination.
---	-------------------

<b>% weighting between components A and B</b> (Standard modules only)	<b>A:</b>	<b>B:</b>
	70%	30%

#### First Sit

Component A (controlled conditions) Description of each element	Element weighting
--	-------------------

1 Open Book Written Examination (2.5 hours)	100%
---	------

Component B Description of each element	Element weighting
--	-------------------

1 Oral Examination (20 minutes)	100%
---------------------------------	------

#### Resit (further attendance at taught classes is not required)

Component A (controlled conditions) Description of each element	Element weighting
--	-------------------

1 Open Book Written Examination (2.5 hours)	100%
---	------

Component B Description of each element	Element weighting
--	-------------------

1 Oral Examination (20 minutes)	100%
---------------------------------	------

If a student is permitted an **EXCEPTIONAL RETAKE** of the module the assessment will be that indicated by the Module Description at the time that retake commences.