HARTPURY
UNIVERSITY CENTRE

Module Specification

Part 1: Basic Data						
Module Title	Agronomy					
Module Code	UILV79-30-2		Level	2	Version	1
Credit Rating	30	ECTS Credit Rating	15	WBL module?	No	
Owning Faculty	Hartpury		Field	Animal and Land		
Department	Agriculture		Module Type	Standard		
Contributes towards	BSc (Hons) Applied Agriculture BSc (Hons) Applied Agriculture (SW) BSc (Hons) Applied Agriculture (Crop Production) BSc (Hons) Applied Agriculture (Crop Production) (SW) BSc (Hons) Applied Agriculture (International) BSc (Hons) Applied Agriculture (International) (SW)					
Pre-requisites	Crop Production and Soil Management UILV75-30-1		Co- requisites	None		
Excluded Combinations	None		Module Entry requirements	None		
Last Major Approval Date	19 January 2017		Valid from	1 September 2017		
Amendment Approval Date			Revised with effect from			
Review Due By	1 September 2023					

Part 2: Learning and Teaching	
Learning Outcomes	On successful completion of this module students will be able to: 1. Apply knowledge of the production of crops and analyse the use of growth regulators to propose justified solutions to maximise crop yields. (B) 2. Evaluate the impact of weeds, disease and pests on the yields of crops. (B) 3. Defend the selection of appropriate agrochemicals, and cultural and biological control measures for the effective control of weeds, diseases and pests to minimise the creation of resistant types and to maximise yield. (A) 4. Critically implement the principles of Integrated Pest Management in a crop production system. (A, B) 5. Analyse the effect of crop protection systems on the environment. (B) 6. Construct an industry standard report using digital technology. (B)
Syllabus Outline	The module will help the students to develop their agronomy skills and make recommendations for crop protection. • Weeds, pests, disease of common crops including grassland • Crop production • Agro chemicals / chemical resistance/anti resistant strategies. Correct identification of weeds, pests and disease and correct choice of agrochemicals. • Biological controls, cultural controls and chemical control. Finding the balance. Use of thresholds. • Plant population manipulation through time of planting, seed rates, tillering, use of plant growth regulators and variety choice. Effects of lodging on yields, quality and margins.

	• Application of variable rate technology to target inputs from mapping to maximise effective use of inputs to help achieve maximum margins. • Underpinning knowledge and understanding to complete foundation award in crop protection. • Production of scientific posters and critical reports.
Teaching and Learning Methods (and contact hours)	The module will be delivered across semesters one and two to allow students to understand the annual production cycle of crops, crop weeds, pests and diseases. Sessions will include lectures and seminars which will focus on evidence informed practice utilising Hartpury's farms for crop walking and shadowing of the college agronomist and directed learning on the VLE. Students are also encouraged to develop core vocational skills through relevant short courses, lab work, field walking on the college farm and visits to other crop producing farms, seed producers and agri-chemical industries These will occur throughout the module to support student learning. The module has directed study time where students will be set reading tasks for seminar work. The mix of contact time, directed study, independent study and practical skills sessions will develop the student's academic and vocational skills knowledge and understanding of the subject area alongside development of key vocational skills. **Virtual Learning Environment (VLE)** This specification is supported by Moodle where students will be able to find all necessary module information. Direct links to information sources will also be provided from within the VLE.
Key Information Sets Information	HEFCE require Key Information Sets (KIS) to be produced at programme level for all undergraduate programmes of more than one year in length. 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.

Key Information Set - Module data

Number of credits for this module 30

Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours
300	72	228	0	300

The table below indicates as a percentage the total assessment of the module which constitutes a -

Written Exam: Unseen written exam, open book written exam, In-class test
Coursework: Written assignment or essay, report, dissertation, portfolio, project
Practical Exam: Oral Assessment and/or presentation, practical skills assessment, practical exam

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:

Total assessment of the module:	
Written exam assessment percentage	0%
Coursework assessment percentage	70%
Practical exam assessment percentage	30%
	100%

Reading Strategy	Students are expected to read a range of textbooks, journal articles and industry relevant publications in support of the module. Any **core** essential reading will be indicated clearly in the first week of module teaching along with the method for accessing it, e.g. students may be expected to purchase a set text, be given a study pack, or be referred to texts that are available electronically, etc. This guidance will be available on the relevant VLE page. **Further** and wider reading is encouraged for this module with relevant material indicated in lectures, lecture notes, seminar preparation instructions and on the relevant VLE. ***Access and skills*** Formal opportunities for students to develop their library and information skills are provided within the induction period and study 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.
Indicative Reading List	The following list is offered to provide 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. Books British Crop Production Council (BCPC) (Current Edition) *The UK pesticide guide (The Green Book)*. Bracknell: BCPC. Carlile, W.C. (Current Edition) *Control of crop diseases*. Cambridge: Cambridge University Press. Copping, L.G. (Current Edition) *The manual of biocontrol agents: a world compendium*. Bracknell: BCPC. Department for Environment Farming and Rural Affairs (DEFRA) (Current Edition*) Code of practice for the safe use of pesticides on farms and holdings: Green Code*. London: MAFF Publications. Dent, D. (Current Edition) *Insect pest management*. Wallingford: CAB International. Finch, H.J.S., Samuel, A.M. and Lane, G.P.F (Current Edition). *Lockhart and Wiseman's Crop Husbandry.* 8th ed. Woodhead. Cambridge. Gratwick, M. ed (Current Edition*) Crop pests in the UK*. London: Chapman & Hall. Hance, R.J. and Holly, K. eds. (Current Edition) *Weed control handbook: principles*. Bracknell: BCPC. Muller, F. ed. (Current Edition) *Agrochemicals: composition, production, toxicology applications.* Weinheim: Wiley-VCH. Van Emden, H.F. and Peakall, D.B. (Current Edition) *Beyond silent spring; Integrated pest management and chemical safety.* London: Chapman & Hall. Webster, J.P.G. and Bowles, R.G. (Current Edition) *The costs and benefits of pesticide usage*. London: Wye College. Websites and databases: Agriculture Research: http://www.rothamsted.ac.uk/ Farmers Weekly: http://www.fwi.co.uk/ Home Grown Cereal Association: https://cereals.ahdb.org.uk/ National Institute for Agricultural Botany: http://niab.com/ Journals

	Journal of Crop Improvement Agronomy and Crop Science

Part 3: Assessment	
Assessment Strategy	The module is assessed through a skills assessment portfolio and a poster defence. The portfolio will provide a summary of student progress. This may be centred on practical achievement of vocationally relevant skills, short answer questions, short projects or reflective logs and will be submitted electronically. Students will be exposed to industry relevant research and how this informs current and future practice during lectures, seminars and industry engagement. During these sessions students will be expected to engage in questioning and debate which will prepare them to defend their poster. Throughout the module and skills assessment there will be opportunities for students to receive formative feedback to support them in their development and allow them to reflect effectively on their performance and whether it meets industry requirements. Additional opportunities for reflection will occur within groups during visits and project completion. Portfolios will be constructed throughout the course of the module and must be completed by the submission date. In line with the Institution'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 the VLE.

Identify final assessment component and element	**Skills Assessment Portfolio**	
% weighting between components A and B (Standard modules only)	**A:** **30%**	**B**: **70%**

First Sit	
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. Poster Defence (15 minutes)	30%
Component B (Uncontrolled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. Skills Assessment Portfolio (equivalent to 3,000 words)	70%

Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. Poster Defence (15 minutes)	30%
Component B (Uncontrolled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. Skills Assessment Portfolio (equivalent to 3,000 words)	70%
If a student is permitted a retake of the module under the Academic Regulations and Procedures, the assessment will be that indicated by the Module Specification at the time that retake commences.	