Royal Agricultural University

Module Overview

Module Title	Crop Production Technology and Innovation

Module Code	CU4013 (EPU6)	Module Type	Taught Module

Subject Area	Agricultural Science and Practice (ASP)

Module Leader	Andriy Melnyk

Location	SNAU Ukraine	Semester	Semester 2 (SNAU)

FHEQ Level	Level 7	Credits	15 credits

QAA Subject Benchmark Statement	Master's Degrees - Business and Management

Module Description

Students taking this module will develop an understanding of the theoretical and practical aspects of modern technologies, while critically evaluating the production efficiencies that could be achieved with the adoption of these technological innovations. The module will cover guidance systems, telematics, remote sensing, Big-Data, IoT, specific crop and robotics and analytics.

Intended Learning Outcomes

ILO1	Critically analyse how the latest technologies and innovative solutions contribute to UK and World agricultural production systems, safe food supply, and the environment.
ILO2	Critically analyse the operation and function of a range of agricultural technologies and innovative solutions used in UK and world production systems
ILO3	Interpret and develop critical responses to how digital agriculture, and data collection can be used to increase the efficiency of on farm crop production systems
ILO4	Discuss the relevant considerations relating to a variety of complex sensors and automation in relation to agricultural and horticultural production systems.

Learning, Teaching and Assessment

Approach to Learning and Teaching

Critical Written and oral skills: ICT including PowerPoint and bibliographic databases; sourcing evaluation and synthesizing information; critical evaluation and decision-making; group working and team skills. Teaching Methods: The course will consist of a series of lectures provided through a blended learning approach. This will include online pre-recorded lectures combined with regular

face-to-face classes for tutorials, field activities and Q&A's to help reinforce learning. Students will be required to prepare seminar presentations, to prepare individual group written reports, and also to conduct formative practical assessments. evaluation and presentation

Approach to Assessment
LO's 1 and 2 will be addressed by a critical review of a topic related to the module. This written assessment will help students to improve their synthesis skills and encourage the critical thinking required at level 7. The second assessment will address LO's 3 and 4 in form of a presentation. This will give students the opportunity to research a topic at a deeper level. It will also help to improve public speaking and knowledge transfer skills.

Scheduled Learning and Teaching Hours (seminars)	24
Scheduled Learning and Teaching Hours (field-based)	0
Scheduled Learning and Teaching Hours (lab-based)	0
Scheduled Learning and Teaching Hours (computer-based)	0
Scheduled Learning and Teaching Hours (online learning)	12
Independent Study Hours	0
Placement Learning Hours	0
Total Study Hours	150

Assessment Components

Component	Type	Weight	Acc' Req?	Submission Week	ILOs Assessed				
					1	2	3	4	5
Essay (critical review) (2500 words)	Coursework	70%	☐	Week 27	☒	☒	☐	☐	☐
Presentation (15 minutes)	Practical	30%	☐	Week 35	☐	☐	☒	☒	☐

Associated Programmes

Programme Title	Designation
MSc Sustainable Agriculture and Food Security	Optional

Resources

Reading list	https://rau.rl.talis.com/index.html