Module Title:	Agroforestry Production Systems
Language of Instruction:	English

Credits:	5

NFQ Level:	7

Module Delivered In	2 programme(s)

Teaching & Learning Strategies:	Formal lectures will be complemented by practical field sessions, guest lectures, and site visits to farms where agro-forestry is being practiced. This will allow for a balance of theory and hands on learning activities and expose the student to a variety of production systems. Classroom activities will focus on the key performance indicators for the system and the management of a complex relationship between woody plants, forages, edible crops and animals. While field trips will be used to develop practical skills in crop management, plant identification and pasture management.

Module Aim:	This module will focus on the key management practices that underpin agro-forestry production. The learner will be exposed to the principals of agro-forestry, the day to day management of agroforestry as a silvo-pastoral as well as a silvo-arable system. Management considerations for the conversion of pasture and arable land will also be covered including species choice relative to market demand, plant spacing, and post establishment care for the trees. Lastly, the role of agro-forestry in enhancing biodiversity and other ecosystem services of this system of farming will be explored.

Learning Outcomes
On successful completion of this module the learner should be able to:

LO1	Demonstrate an understanding of the principals underpinning silvo-pastoral production systems on conventional and organic farms
LO2	Demonstrate an understanding of the principals underpinning silvo-arable production systems on conventional and organic farms
LO3	Demonstrate an understanding of the wider economic, biodiversity and ecosystem services where agro-forestry is utilised

Pre-requisite learning
Module Recommendations   *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules   *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements   *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
No requirements listed

Module Content & Assessment

Indicative Content
Silvo-pasture The conversion of pasture land to silvo-pasture will examined including the choices of tree and the management of the establishment process. The learner will gain an insight to the most appropriate forage species and livestock species to use in silvo-pasture systems and how these can work together to enhance the profitability of the farm
Silvo-arable The conversion of arable land to silvo-arable will examined including the choices of tree and the management of the establishment process. The learner will gain an insight to the management that is required to maintain the yield of arable crops while also taking a yield of biomass from the trees.
Economic and ecosystem benefits from agro-forestry The learner will critically assess the choice of species that is most suited to the system of production on the farm with due consideration plants which are indigenous to the area where possible. Economic considerations such as the costs of establishment, financial support and the sale value of biomass generated will be examined. The wider ecosystem services of agro-forestry will also be explored in the context of benefits for soil, water and air quality, shelter and food for vertebrate and invertebrate animals and the management of the system to be beneficial to the wider environment.

Assessment Breakdown	%
Continuous Assessment	100.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Written Report	Students will be expected to produce written reports based on field practicals, case studies and guest lecturers.	1,2,3	30.00	Every Second Week
Project	Students should complete a plan for the conversion of farm land into agro-forestry production based on case studies provided.	1,2,3	20.00	n/a
Examination	Students will complete practical skills evaluations, written and oral examinations on the learning outcomes.	1,2,3	50.00	Ongoing

No Project

No Practical

No End of Module Formal Examination

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Written Report	Students will be expected to produce written reports based on field practicals, case studies and guest lecturers.	1,2,3	30.00	n/a
Project	Students should complete a plan for the conversion of farm land into agro-forestry production based on case studies provided.	1,2,3	20.00	n/a
Examination	Students will complete practical skills evaluations, written and oral examinations on the learning outcomes.	1,2,3	50.00	n/a

No Project

No Practical

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time

Workload Type	Frequency	Average Weekly Learner Workload
Lecture	12 Weeks per Stage	2.00
Practicals	12 Weeks per Stage	1.00
Independent Learning Time	12 Weeks per Stage	3.00
	Total Hours	72.00

Workload: Part Time

Workload Type	Frequency	Average Weekly Learner Workload
Lecture	12 Weeks per Stage	2.00
Practicals	12 Weeks per Stage	1.00
Independent Learning Time	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	4	Mandatory
CW_SWOAG_D	Bachelor of Science in Organic Agriculture	4	Mandatory

Programme Code	Programme	Semester	Delivery
CW_SWOAG_B	Bachelor of Science (Honours) in Organic Agriculture	4	Mandatory
CW_SWOAG_D	Bachelor of Science in Organic Agriculture	4	Mandatory