

Crop Breeding

Module Information

2022.01, Approved

Summary Information

Module Code	5502YAUBIO
Formal Module Title	Crop Breeding
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Yunnan Agricultural University

Learning Methods

Learning Method Type	Hours
Lecture	32

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-PAR	PAR	September	12 Weeks

Aims and Outcomes

Aims	Crop breeding is a science to study the theory and method of crop breeding, and it is one of the main professional courses of agronomy. This module aims to provide students with an opportunity to master the basic theory, general principles and breeding methods of crop breeding, and lay a foundation for future work related to the breeding of good varieties of crops.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Describe the principles of crop breeding.
MLO2	2	Apply basic knowledge of crop breeding for scientific research, breed selection and reproduction.
MLO3	3	Apply crop breeding knowledge to solve specific problems in production practice.

Module Content

Outline Syllabus	The module provides an understanding of crop breeding including methods and variety types, germplasm resources, breeding objectives, introduction and selection breeding, cross breeding, backcross breeding, mutation breeding, distant cross breeding, ploidy breeding, heterosis utilisation, male sterility and their hybrids. Variety breeding, resistance to pest and disease breeding, resistance breeding, population improvement and recurrent selection, cell engineering and crop breeding, transgenic technology and crop breeding, molecular marker-assisted selection breeding, rice breeding, maize breeding, wheat breeding, Yunnan Road Medicinal herbs breeding, flower breeding, and vegetable breeding.
Module Overview	
Additional Information	The module is designed to allow students to master the basic theory, general principles and breeding methods of crop breeding, and provides an opportunity to apply knowledge to solve specific problems in production practice.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Exam	Exam	50	2	MLO1, MLO2, MLO3
Artefacts	Test	20	0	MLO1, MLO2, MLO3
Report	Report	30	0	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Katie Evans	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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