



UNIVERSITI TEKNOLOGI MARA

BDY636: GERMLASM AND PLANT TISSUE CULTURE

Course Name (English)	GERMLASM AND PLANT TISSUE CULTURE APPROVED
Course Code	BDY636
MQF Credit	3
Course Description	This course will introduce the students to the concept of germplasm, conservation, techniques and strategies of plant genetic resources. It will also cover the principles, techniques, and applications of plant tissue culture and micropropagation. Students will also be exposed to hands-on skills of aseptic techniques and cryopreservation.
Transferable Skills	On completion of the course, the student will be able to: 1. Apply the proper skills of the principles of plant tissue, cell culture and micropropagation. 2. Apply proper laboratory skill to cultivate different plant species or part in vitro. 3. Communicate effectively with others to solve some given situation and problems.
Teaching Methodologies	Lectures, Small Group Sessions
CLO	CLO1 To describe the concept of germplasm, conservation, techniques and strategies of plant genetic resources CLO2 To understand the principle of plant tissue, cell culture and micropropagation CLO3 To apply and use aseptic conditions to cultivate different plant species or part in vitro and to explain cryopreservation
Pre-Requisite Courses	No course recommendations
Topics	
1. Germplasm conservation 1.1) N/A	
2. Introduction of plant tissue culture 2.1) N/A	
3. Cell, tissue and organ culture 3.1) N/A	
4. Micropropagation 4.1) N/A	
5. Micropropagation 5.1) N/A	
6. Callus culture 6.1) N/A	
7. Cell culture 7.1) N/A	
8. Somatic embryogenesis 8.1) N/A	
9. Embryogenesis 9.1) N/A	
10. Somaclonal variation 10.1) N/A	
11. Genetic variation 11.1) N/A	

12. Cryopreservation 12.1) N/A
13. Cryopreservation 13.1) N/A
14. Freeze preservation technology 14.1) N/A

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Lab Exercise	Practical and written report	10%	CLO3
	Quiz	Quiz	10%	CLO3
	Test	Test 1	15%	CLO1
	Test	Test 2	15%	CLO2

Reading List	This Course does not have any book resources
Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources