



UNIVERSITI TEKNOLOGI MARA

BDY411: BOTANY

Course Name (English)	BOTANY APPROVED
Course Code	BDY411
MQF Credit	3
Course Description	Botany is the study of plant life. Botany is a branch of biology that deals with plants of all shapes and sizes. This course will give much base information for student about plant taxonomy, plant ecology, and plant cell. Medicinal plant act. There are different approaches to the study of plants and as there are over 500,000 different species to study, so this course will give provide knowledge to the students about different characters for every species of plant: roots, stem, leaf, flowers, fruits, and other modification on the their tissues.
Transferable Skills	Skills and how they are developed and assessed, project and practical experience and Internship 1. Apply the knowledge and information acquired from the study of botany. 2. Able to clearly explain the basic information related to botany.
Teaching Methodologies	Lectures, Lab Work, Case Study, Discussion, Presentation
CLO	CLO1 Explain and understand botany CLO2 Write and explain the difference between botany with other branch biology CLO3 State, write and identifying the basic information story of botany, importance of botany in sciences, sub disciplines in botany.
Pre-Requisite Courses	No course recommendations
Topics	
1. Introduction to Botany Part 1 1.1) • Definition 1.2) • Scope and importance 1.3) • History and notable botanist 1.4) • Discipline and other branches of botany 1.5) • Overview of evolutionary concept	
2. Introduction to Botany Part 2 2.1) • Twelve phylum in kingdom of plantae 2.2) • Plant in two major ecosystem 2.3) • Other related kingdom	
3. Plant Morphology Part 1 3.1) • Development of body plan 3.2) • basic plant structure	
4. Plant Morphology Part 2 4.1) • Plant cell (eukaryotic cell) 4.2) • Overview of plant tissue	
5. Plant Reproductive 5.1) • Plant life history pattern 5.2) • Natural reproduction	
6. Plant Taxonomy 6.1) • History of taxonomy 6.2) • Classification system 6.3) • Plant nomenclature 6.4) • Taxonomy studies	

7. Angiospermae 7.1) • Structure and function of flower organ 7.2) • Production of gametophytes 7.3) • Double Fertilization 7.4) • Dispersal 7.5) • seed 7.6) • Differentiation between Dicot and monocot
8. Pollination 8.1) • Concept of pollination 8.2) • Pollinator agent and co-evolution
9. Bryophyta and Tracheophyta 9.1) • Introduction to Bryophytes 9.2) • Early Tracheophytes
10. Internal Organization of Plants 10.1) • Component of Protoplast cell 10.2) • Component of outer cell 10.3) • Component of permanent tissue
11. Primary structure of root, stem and leaf of monocot and dicot plants 11.1) • Overview Root 11.2) • Overview Stem 11.3) • Overview Leaves
12. Plant Ecology 12.1) • Introduction to plant ecology
13. Economic Botany Part 1 13.1) • Ethnobotany: culture and civilization 13.2) • Crop plant (agriculture) 13.3) • herb and medicinal plant
14. Economic Botany Part 2 14.1) • Plant biotechnology (plant breeding) 14.2) • plant conservation

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Discussion	Field dialogue is entire class discussion during online video watching session , where the student and lecturer engage with Q&A throughout the mock forum which the assessment will be evaluated individually	20%	CLO3
	Lab Exercise	lab report consist of compilation lab practical (objective, method, discussion etc) will be evaluated individually	15%	CLO3
	Presentation	video presentation based on the any chapter in botany, relevant issue or study creativity regarding this subject in which submission be will evaluated individually.	15%	CLO3

Reading List	Reference Book Resources
	<ul style="list-style-type: none"> • William Nike 2017, <i>Concepts in plant physiology</i>, Intelliz Press LLC new york [ISBN: 9781682] • Walter S. Judd, Michael J. Donoghue 2015, <i>Plant Systematics</i>, Sinauer Associates Sunderland, MA [ISBN: 9781605353890] • James D. Mauseth 2014, <i>Botany: an introduction to plant biology</i>, Jones & Bartlett Publishers Burlington, MA [ISBN: 9781449665807] • R. K. Sinha 2014, <i>Modern Plant Physiology</i>, Alpha Science International Ltd oxford,uk [ISBN: 9781842658161] • Lalit Kumar Dwivedi 2013, <i>The DBS Handbook of Botany</i>, DBS Imprints new delhi [ISBN: 9788192372808]
Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources