



SULTAN QABOOS UNIVERSITY

COURSE OUTLINE

PROGRAM: Bachelor of Science in Plant Sciences

1. Course Code	PLNT3011	
2. Course Title	Plant Propagation	
3. Credits	3 Cr Hrs , 12 Cr Points, 6 ECTS	
4. Pre-requisite Course(s)	BIOL2101, PLNT2515	
5. Co-requisite Course(s)		
6. Equivalent Course(s)	CROP3011, CROP4011, HORT4011	
7. Incompatible Course(s)		
8. Course Category	<input type="checkbox"/> University Requirement	<input type="checkbox"/> University Elective
	<input type="checkbox"/> College Requirement	<input type="checkbox"/> College Elective
	<input checked="" type="checkbox"/> Department Requirement	<input type="checkbox"/> Department Elective
	<input type="checkbox"/> Specialization Requirement	<input type="checkbox"/> Specialization Elective
	<input type="checkbox"/> Other (specify):	
9. Course Owner	College: CAMS	Department: Plant Sciences
10. Course Type	<input type="checkbox"/> Lecture	<input checked="" type="checkbox"/> Lecture/Lab
	<input type="checkbox"/> Lecture/Seminar	<input type="checkbox"/> Lecture/Studio
	<input type="checkbox"/> Lecture/Tutorial	<input type="checkbox"/> Lecture/Lab/Tutorial or Seminar
	<input type="checkbox"/> Tutorial	<input type="checkbox"/> Laboratory (Practical)
	<input type="checkbox"/> Field or Work Placement	<input type="checkbox"/> Studio
	<input type="checkbox"/> Seminar	<input type="checkbox"/> Internship
	<input type="checkbox"/> Workshop	<input type="checkbox"/> Project
11. Language of Instruction	English	
12. Course Description		
In this course, students will review the structure of plant parts; especially tissues, and organs involved in propagation. The course covers seed development and methods of sexual propagation, and also vegetative propagation, such as grafting, layering, and tissue culture. Propagation facilities and commercial scale post-propagation plant care are also covered.		
13. Teaching/Learning Strategies		
Lectures Field trips Laboratory reports and assignments Presentations		
14. Assessment Components and Weight [%]		
<input type="checkbox"/> Quizzes	<input checked="" type="checkbox"/> Practical 20	<input checked="" type="checkbox"/> Other (specify): 10 lab final
<input type="checkbox"/> Homework assignments	<input checked="" type="checkbox"/> Project 5	
<input checked="" type="checkbox"/> In-term examination(s) 30	<input checked="" type="checkbox"/> Final examination 35	
15. Grading Method		
<input checked="" type="checkbox"/> A-F Scale <input type="checkbox"/> Pass/Not passed		
16. Textbook(s) and Supplemental Material		
Hartmann, H.T., D.E. Kester, F.T. Davies Jr. and R. L. Geneve. 2011. Plant Propagation Principles and Practices, 8 th Edition, .Prentice Hall.		

17. Matching Course Objectives with Program Outcomes and SQU Graduate Attributes		
SQU Graduate Attributes		
A. SQU graduates should be able to: 1. apply the knowledge and skills relevant to the specialization 2. communicate effectively and use information and communication technologies 3. critically analyze complex information and present it in simple clear manner	B. SQU graduates possess 1. interpersonal communication skills and alignment with culture of international labour market to assist them in practical life and in living successfully 2. skills and motivation for independent learning and engagement in lifelong learning and research 3. work ethics and positive values, and intellectual independence and autonomy 4. teamwork skills and display potential leadership qualities	C. SQU graduates should relish good citizenship qualities, be conscious of their national identity and be socially responsible, engage in community affairs and be mindful of contemporary issues.

#	Intended Student Learning Outcome /Course Learning Objective	Relevant Program Outcome(s)	Applicable Attribute(s)
1.	Understand the biology & mechanisms of sexual and asexual plant multiplication.	A.1.1 Graduates will have knowledge and skills in crop sciences	A1
2.	Learn the basic requirements of plant propagation facilities.	A.1.1 Graduates will have knowledge and skills in crop sciences A.1.3 Graduates will have an understanding of elements of the crop farming business	A1
3.	Gain practical experience with different types of plant propagation techniques.	A.1.2 Graduates will have understanding of crop production systems in Oman A.1.3 Graduates will have an understanding of elements of the crop farming business	A1
4.	Learn the structure of plant parts, particularly plant cells, tissues, and organs involved in propagation.	A.1.1 Graduates will have knowledge and skills in crop sciences	A1
5.	Understand seed development and methods of sexual propagation by seed.	A.1.1 Graduates will have knowledge and skills in crop sciences	A1
6.	Gain basic understanding of the requirements and methods of tissue culture.	A.1.1 Graduates will have knowledge and skills in crop sciences	A1
7.	Gain theoretical understanding of the common vegetative propagation methods.	A.1.1 Graduates will have knowledge and skills in crop sciences	A1
8.	Students will have a comprehensive know-how of cutting, grafting and layering methods of propagation.	A.1.1 Graduates will have knowledge and skills in crop sciences	A1
9.	Apply propagation skills in practical, real-world example	B.2 Graduates will be motivated to engage in independent life-long learning B.3 Graduates will understand and follow professional and social norms and ethics. B.4 Graduates will have the ability to build teams and work in team for target oriented tasks.	B2, B3, B4
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

16. Student Responsibilities

It is the student's responsibility to know and comply with all University Academic Regulations relevant to participation in this course. These regulations specifically include attendance requirement and students' academic code of conduct.

For attendance, it is the student's responsibility to be punctual and to attend all classes.

Students are expected to perform their work with honesty and avoid any academic misconduct, which is defined as the use of any dishonest or deceitful means to gain some academic advantage or benefit. This can take many forms, including but not limited to, the following: copying, plagiarism, collusion and forging documents. For full details, please refer to the Undergraduate Academic Regulations and to the Student Academic Misconduct Policy.

Additionally, this course requires that you:

COURSE INFORMATION			
Course Code	PLNT3011	Course Title	Plant Propagation
Semester/ Year	Fall	Section(s)	10, 11
Day, Time, and Place			
Course Coordinator	Rashid AlYahyai		
Office Location	AGR1015	Office Hours	
Office Tel. Ext.	1208	Email	alyahyai@squ.edu.om

Tentative Schedule			
Week	Lecture #	Topic/Material to be covered	Assessment
1	1	Introduction to the course; overview, introduction to plant structures	exam, final
2	2	Plant structure continued; leaf, stem, root flowers, fruits and seeds	exam, final , lab report
3	3	Asexual (vegetative) propagation - stem and leaf cuttings	exam, final
4	4	Asexual (vegetative) propagation cont. - budding and layering	exam, final plus lab reports
5	5	Sexual propagation - seed development	exam, final
6	6	Sexual propagation - seed germination	exam, final, plus lab report
7	7	Tissue culture overview	exam, final
8	8	Biotechnology and micropropagation	field trip report, exam, final, lab report
9	9	Cultivar development,	exam, final
10	10	Rootstocks, scions and grafting	exam, final
11	11	Propagation with specialized tissues; bulbs, corms, etc	exam, final, lab report
12	12	Specialized tissues continued	exam, final
13	13	Current topics in plant propagation I.	exam, final
14	14	Current topics in plant propagation II	Final project presentation and report
15	15	Review of all topics, presentations	exam, final
16			
17			

APPENDIX A: INSTRUCTORS OF MULTIPLE SECTIONS

[illegible]

APPENDIX B: ADDITIONAL INFORMATION