



Jordan University of Science and Technology
Faculty of Agriculture
Plant Production Department

PP314 Seed Production And Technology

Summer Semester 2019-2020

Course Catalog

3 Credit Hours. Plant reproductive development, seed formation and development, seed maturation, seed chemical composition, seed germination, seed dormancy and methods to overcome seed dormancy, seed standard germination, seed purity, seed vigor testing, tetrazolium test, seed production, seed certification, and quality control program.

Text Book

Title	Principles of Seed Science and Technology.
Author(s)	Copeland L., M. B. McDonald. 1995
Edition	3rd Edition
Short Name	Ref # 1
Other Information	Chapman and Hall, N.Y.

Instructor

Name	Prof. Nezar Samarah
Office Location	C4L2
Office Hours	
Email	nsamarah@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Sun, Mon, Tue, Wed : 13:30 - 14:30
Room: منصة الكترونية

Teaching Assistant

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Prerequisites		
Line Number	Course Name	Prerequisite Type
623110	PP311 Field Crops Production	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Seed reproductive processes	Chapter 1 From Ref # 1
Week 1	Seed formation, development, and maturation:	Chapter 2 From Ref # 1
Week 2	The chemistry of seed	Chapter 3 From Ref # 1
Week 2	Seed germination	Chapter 4 From Ref # 1
Week 3	Seed viability testing	Chapter 5 From Ref # 1
Week 3	Seed dormancy	Chapter 6 From Ref # 1
Week 3	Attributes of seed quality	Chapter 7 From Ref # 1
Week 4	Determinants of seed quality	Chapter 8 From Ref # 1
Week 5	Seed vigor and vigor testing	Chapter 9 From Ref # 1
Week 6	Seed production	Chapter 10 From Ref # 1
Week 7	Seed certification	Chapter 11 From Ref # 1
Week 8	Quality control of seed production	Chapter 12 From Ref # 1

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
To learn about reproductive processes in plants, seed structure, seed morphology and development, and seed maturation. [50PLO1, 50PLO2]	20%	First Exam, Lab Reports, Final Exam
To learn about the important chemical components of seeds and their importance as source of human food and germinating embryo after planting. [50PLO1, 50PLO2]	10%	First Exam, Lab Reports, Final Exam
To understand the seed germination process, seed viability, types of dormancy and how to overcome each type [50PLO2, 50PLO3]	30%	Second Exam, Lab Reports, Final Exam
To learn how to conduct seed quality. [30PLO1, 30PLO2, 40PLO3]	20%	Lab Reports, Final Exam
To learn the main steps in seed production and certification. [35PLO1, 35PLO2, 30PLO7]	20%	Final Exam

Relationship to Program Student Outcomes (Out of 100%)						
PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7
28	43	23				6

Evaluation	
Assessment Tool	Weight
First Exam	20%
Second Exam	20%
Lab Reports	10%
Final Exam	50%

Policy	
Exams	All exams are closed book and notes. The final exam is comprehensive (covering all teaching materials). Incomplete exams need approval from the department chair and the faculty dean.
Cheating	Prohibited; and in case of cheating the student will be subject to punishment in accordance with the university regulations
Attendance	Students are expected to attend all class meetings regularly. If the student is absent for more than 20% of the course, the student will be prevented from taking all subsequent exams and assigned an F (Failure) grade in the course (deprived by absence). This maximum includes both excused and unexcused absences.
Participation	Participation is highly encouraged.
Laboratory	Students will take thirteen labs during the course. Students must submit lab reports and take a final lab exam. Lab attendance is required for passing the class.
Withdraw	The student can withdraw from the course in accordance with the timeline defined by the university regulations

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