



Course Specifications

Course Title:	Plant Pathology
Course Code:	2014110-3
Program:	Bachelor in Botany
Department:	Biology Department
College:	College of Sciences
Institution:	Taif University

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A. Course Identification

1. Credit hours:	3 hr
2. Course type	
a.	University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b.	Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered:	11 th level / 4 th year
4. Pre-requisites for this course (if any):	Mycology 2013108-3
5. Co-requisites for this course (if any):	None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	6 hr/Week	100 %
2	Blended	-	-
3	E-learning	-	-
4	Distance learning	-	-
5	Other	-	-

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	30
2	Laboratory/Studio	20
3	Tutorial	-
4	Others (specify)	-
	Total	50

B. Course Objectives and Learning Outcomes

1. Course Description:

This course deals with studying plant diseases and their causes (biotic and abiotic agents), direct and indirect losses from plant diseases, symptoms of plant infections, inoculums of microbial infection, environmental conditions that cause spread of microbial infectious, disease cycles and methods used in diagnosis and controlling plant diseases.

2. Course Main Objective:

To recognize different plant diseases, classify plant diseases, be familiar with the different symptoms of diseases in plants, know the principles of etiology and the events that occur during primary and secondary cycles of plant pathogenesis and recognize the principles of plant-disease control.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding:	
1.1	Recognize facts, principles and scientific terminology of plant pathology.	K1

CLOs		Aligned PLOs
1.2	Classify different plant diseases according to relevant biological characters.	K2
2	Skills:	
2.1	Apply concepts and common terms associated with plant pathology.	S1
2.2	Utilize concepts of plant disease control and management.	S2
3	Values:	
3.1	Demonstrate professional responsibilities in using the proper presentation forms and scientific language.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Chapter (1) The history of Phytopathology-Principles of Plant Pathology-Plant disease losses and distribution of pathogens-economic importance.	3L+2P
2	Division of Plant Diseases - Symptoms of plant Diseases-The Diagnosis of plant diseases.	3L+2P
3	Chapter (2) Spread of plant pathology agents – Effect of Environmental conditions on Plant diseases. Causal agent of Plant Pathology (Biotic and abiotic agents) Fungal parasitism- The phases of the disease cycle.	3L+2P
4	Chapter (3) Methods of Plant disease Controlling. Fungal plant diseases: Damping-off diseases, vascular wilt and their disease cycles.	3L+2P
5	Fungal plant diseases: Blights and leaf spots diseases - Post-harvest and storage diseases and their disease cycles.	3L+2P
6	Fungal plant diseases: Downy and Powdery mildews diseases and their disease cycles.	3L+2P
7	Fungal plant diseases: Rusts and Smuts diseases and their disease cycles	3L+2P
8	Chapter (4) Bacterial and Phytoplasma plant diseases (importance, nature) Examples of the most important bacterial and Phytoplasma plant diseases. Plant viral and viroid diseases	6L+4P
9	Chapter (5) Nematode diseases - parasitic flowering plants Ecological factors as causal agents of plant diseases	3L+2P
Total		30L+20P

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding:		
1.1	Recognize facts, principles and scientific terminology of plant	Lectures Open discussion	Paper-based exams

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	pathology.		
1.2	Classify different plant diseases according to relevant biological characters.	Lectures Concept maps	Paper-based exams Practical reports
2.0	Skills:		
2.1	Apply concepts and common terms associated with plant pathology.	Interactive learning Open discussion	Practical reports
2.2	Utilize concepts of plant disease control and management.	Lectures Small group activities	Practical reports Practical exam
3.0	Values:		
3.1	Demonstrate professional responsibilities in using the proper presentation forms and scientific language.	Small group activities Interactive learning	Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Midterm Exam	5 th	20%
2	Semester Activities	Periodic	10%
3	Practical Reports	Weekly	20%
4	Final Practical Exam	11 th	10%
5	Final Exam	12 th	40%
Total			100%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

6 hours per week (as defined in the teaching schedule of the faculty member) for academic advice and consultations.

Teaching staff is also available using Blackboard web site and Taif University “Edugate” System.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	- Agrios, G.N. (2012). Plant Pathology. 3 rd Edition, Academic Press, NY, USA. - محمود موسى أبو عرقوب (٢٠١٨). أمراض النبات، المكتبة الأكاديمية، القاهرة، جمهورية مصر العربية.
Essential References Materials	- مديح محمد علي (٢٠٠٦). أمراض النبات، مكتبة أزوريس للكتب العلمية، القاهرة، جمهورية مصر العربية. - مديح محمد علي (٢٠١٣). قاموس أمراض النبات، دار الكتاب الحديث، القاهرة، جمهورية مصر العربية.

Electronic Materials	Blackboard website Website of Saudi digital Library
Other Learning Materials	Computer-based programs and professional software

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	- Classrooms for 40 students\lecture. - Laboratory for 20 students\ lab activity
Technology Resources (AV, data show, Smart Board, software, etc.)	- Data show.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Preserved samples, glassware

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students	Indirect
Quality of learning resources	Peer Reviewer Students	Direct Indirect
Extent of achieving the course learning outcomes	Peer Reviewer Students	Direct Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Biology Department
Reference No.	Committee number 14 - Academic Year 1442-1443H
Date	22\5\2022G – 21\10\1443H

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