

FORMAN CHRISTIAN COLLEGE
(A Chartered university)
School of Life Sciences
Spring 2023

Instructor: Dr. Ibatsam Khokhar (Assistant Professor)
E-mail: ibatsamkhokhar@fccollege.edu.pk
Office: S-160
Office hours: TR 8:30 - 9:30am MF 9:00 - 10:00am
OR by an appointment

Course Information: Plant pathology (Biol - 469)
Section: A
Credit hours: 4
Prerequisites: None
Lecture: MWF 10:00 to 10:50am (Room S-109)
Lab: Friday 2:00-3:50pm (S-329)

Text Book:

Essential Plant Pathology 2nd Edition by Schumann and D'Arcy.

Course Objectives:

The goal of BIOL 469 is to prepare students for professional careers in a biological-related field that employs the principles of Plant Pathology. This goal will be achieved through the mastery of the following specific objectives:

- 1- Introduction of major pathogen groups which cause plant diseases.
- 2- Diagnose diseases caused by abiotic factors and their management.
- 3- Symptoms and pathogens description of different plant diseases.
- 4- Helps students understand host pathogen relationships: ecological, physiological, and genetic.
- 5- Effect of plant diseases on humans and their management.

Learning Outcomes:

By the end of the course students will be able to

- 1- Know different pathogens which cause plant diseases.
- 2- explain the significance of abiotic factors in developing diseases.
- 3- identify the symptoms and pathogens of different diseases.
- 4- Understand the effect of diseases on humans and their management.

Course Contents:

The lecture portions of this course begins with introduction to plant diseases, major pathogens groups, diagnose diseases caused by abiotic factors and their management. Students will learn

about symptoms and pathogens of different plant diseases like damping off, canker, galls, root rots and postharvest. Last portion is based on detailed study of post pathogens relationship and how human beings affect plant diseases and are affected by them, and the management of plant diseases.

Course evaluation:

Activity to be Assessed	Weight age (% age)
Final Exam	35
Mid-Term Examination	20
Lab Exam	15
Quizzes	15
Assignment	10
Attendance	5
Total	100

The Grading system for the course is as follows:

Grades	Quality Points	Numeric Value	Meaning
A	4.00	93-100	Superior
A-	3.70	90-92	
B+	3.30	87-89	
B	3.00	83-86	Good
B-	2.70	80-82	
C+	2.30	77-79	
C	2.00	73-76	Satisfactory
C-	1.70	70-72	
D+	1.30	67-69	
D	1.00	60-66	Passing
F	0.00	59 or below	Failing

Course Policies:

Attendance:

80% attendance is required in lectures as well as in lab if a student fail to fulfill the requirement, he/she will not be allowed to appear in final examination. Late comers will not be allowed to attend the lecture. Lab coats and Lab notebooks are required to be completed and signed in each lab class.

Exam: During the semester there will be two exams for lectures and one for the labs. Mid term will be objective and short questions while final term will comprise objective and subjective questions. No tolerance for cheating / plagiarism (student will be dropped from the course).

Assignment:

There will be one assignment. Late submissions will not be graded.

Mobile Phone:

Students are advised to silent their mobiles during lecture and labs.

Course Contents:

Plant Pathology (BIOL 469)

WEEKS	Contents	Laboratory Work
1	What is Wrong with my plant?	Orientation to laboratory and Safety measures
2	What are the causes of plant diseases?	Sterilization techniques
3	Fungi	Media preparation
4	Bacteria	Aseptic techniques
5	Nematodes	Establishing pure Fungal cultures
6	Viruses	Observation of symptoms of fungal disease samples
7	Parasitic flowering plants	Observation of symptoms of bacterial disease samples
8	abiotic factors	Observation of symptoms of viral disease samples
9	What types of plant diseases are there?	Observation of symptoms of nematode disease samples
10	How do plants interact with pathogens?	Observation of symptoms of parasitic flowering plants disease samples
11	How do people influence plant diseases epidemics?	Observation of symptoms of post-harvest disease samples
12	How can we prevent or manage plant diseases epidemics?	Survey to observe different plant diseases
13	Revision	Establishment of Koch's postulates
14	Final Exam	Final Exam