



**Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore**  
**Shri Vaishnav Institute of Agriculture**  
**Generic Elective course**  
**III semester**

Course Code	Course Name	TEACHING & EVALUATION SCHEME							
		Theory			Practical		Credits		
		END SEM University Exam	Midterm exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	P	Total
<b>GUAGRI PP 302</b>	<b>Introduction to Plant Pathology</b>	<b>60</b>	<b>40</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>4</b>	<b>0</b>	<b>4</b>

**1. Legends: L - Lecture; P – Practical**

**2. \*Teacher Assessment shall be based on following components: Quiz / Assignment / Project / Participation in Class.**

**Objective:**

Basic knowledge of Plant Pathology

**Course Outcomes**

1. Student will be able to understand importance of Plant Pathology for the crop improvement
2. Student will be able to understand different diseases of plant and it`s cause

**THEORY**

**UNIT I**

Introduction: Importance of plant diseases, scope and objectives of Plant Pathology. Terms and concepts in Plant Pathology. Pathogenesis. Causes/ factors affecting disease development: disease triangle and tetrahedron and classification of plant diseases. Symptoms of Plant Diseases.

**UNIT II**

Fungi: general characters, definition of fungus, somatic structures, types of fungal thalli, fungal tissues, modifications of thallus, reproduction (asexual and sexual). General morphological characters of algae and protozoa.

**UNIT III**

Bacteria and mollicutes: general morphological characters. Basic methods of classification and reproduction of bacteria. General morphological characters of phytoplasmas, spiroplasmas. Viruses: nature, structure, replication and transmission. n General morphological characters of viroid.

**UNIT IV**

Study of phanerogamic plant parasites. Nematodes: General morphology and reproduction, classification and symptoms caused by plant nematodes (*Heterodera*, *Meloidogyne*, *Anguina*,

*Radopholus* etc.)

## **UNIT V**

Dispersal and survival of plant pathogens. Principles and methods of plant disease management. Nature, chemical combination, classification, mode of action and formulations of fungicides.

### **Suggested Readings**

- G.N. Agrios (2005) *Plant Pathology, Fifth Edition*. Elsevier Academic Press.
- Dube, H.C. (2013). *An Introduction to Fungi, 4th (Edition)*, Scientific Publishers, Jodhpur, India,
- Das Gupta, M.K. (1987). *Principles of Plant Pathology*, Allied Publ. Pvt. Ltd.
- S.K. Tripathi, M.S. Bhale , V.K. Yadav & Ashish Shrivastava (2024). *Fundamentals of Plant Pathology*. Scientific Publishers, Jodhpur, Rajasthan, India.