Title of Course:	Integrated Plant Protection
Nodal Department of HEI to run course	
Broad Area/Sector	Plant Protection
Sub Sector	Plant Health Management
Nature of Course-Independent/Progressive	Independent
Name of suggestive Sector Skill Council	Agriculture Skill Council of India [ASCI]
Aliened NSQF level	4
Expected fees of the course- Free/Paid	
Stipend to student expected from industry	
Number of Seats	
Course Code:	Credits: 03 (1 Theory, 2 Practical)
Max. Marks: 100	Min Marks:
Name of proposed Skill Partner (Please specify Name of Industry, Company etc. for Practical/Training/internship/OJT)	
Job prospects-Expected Fields of occupation where student will be able to get job after completing this course (Please specify name/type of industry)	Agripreneurs, Organic Farming, Plant Health Consultancy

Syllabus

Unit	Topics	General/Skill component	Theory/Practical/OJT/Internship/Training	No of Theory Hrs (Total-15 Hrs=1 Credit)	No of Skill Hrs (Total-60 Hrs=2 Credits)
I	**Need for Plant Protection: Threat and Economic significance**		Theory - 01	1 hr	--
II	**Insect and Non-insect Pests. Pest management: Physical, Chemical and Biological Control**		Theory - 03 Practical- 08	3 hrs	16 hrs
III	**Plant diseases and symptoms; Common diseases of Horticultural crops- pathogen, symptoms, etiology and management**		Theory - 05 Practical- 16	5 hrs	32 hrs
IV	**Defence mechanisms in plants - Morphological, Anatomical and Physiological**		Theory - 01 Practical- 02	1 hr	4 hrs
V	**Weed management**		Theory - 02 Practical- 02	2 hrs	4 hrs
VI	**Good Practices for Plant Health Management**		Theory - 03 Practical- 02	3 hrs	4 hrs
			TOTAL	15 hours	60 hours

Suggested Readings:

1. Gupta V K, Paul T S, 2004. *Fungi & Plant diseases*. Kalyani publishers, New Delhi 6.
2. Kerruish, R M, Unger, P W. *Plant protection 1: Pests, Diseases and Weeds*, 4th edition, Root Rot Press 22 Lynch Street, Hughes, Canberra, ACT, Australia (e-book available)
3. Verma L R, Verma A K, Goutham D C, 2004. *Pest Management in Horticulture Crops: Principles and Practices*. Asiatech Publ., New Delhi.
4. Susheela, K., Satyanarayana N. *Illustrative Guide on Weed Regulation*, NIPHM, Hyderabad, (ebook).
5. Chaube H S, Ramji S, 2001. *Introductory Plant Pathology*. International Book Distributing Co. Lucknow.
6. Plants Health Newsletter, NIPHM, Hyderabad, India.

Suggested Digital Platforms/Web Links for Reading: www.niphm.gov.in

Suggested OJT/ Internship/Training/Skill Partner):

Suggested Continuous Evaluation Methods: Projects/Assignments from the topics of the course.

Course Pre-requisites: **To study this course, a student must have the subject <u>BIOLOGY</u> in class 12th/Certificate/Diploma.**
Suggested equivalent online courses: Plant Pathology and Soil Health on SWAYAM portal
Any remarks/suggestions:
Notes: ***Number of units in Theory/Practical may vary as per need.** ***Total Credits/semester-3 (There can be more credits, but student will get only 3 credits/semester or 6 credits/year)** ***Credits for Theory = 01 (Teaching Hours = 15)** ***Credits for Internship/Training/Practical = 02 (Training Hours = 60)**

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