FOUR YEAR UNDERGRADUATE PROGRAM (2024 - 28) **DEPARTMENT OF ZOOLOGY**

COURSE CURRICULUM

Course Code ZOSEC-01 Course Code ZOSEC-01 Course Title Vermiculture and Vermicomposting	1995	A 500 MI			SE CURRICULUM			
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Course Title Vermiculture and Vermicomposting	Program: Bachelor in Life Science (Certificate / Diploma / Degree)				Semester – II/IV/V/VI	Session: 2024-2025	5	
Course Type	1	Co	irse Code	ZOSEC-01	<u> </u>		***************************************	
Course Type Skill Enhancement Course As per Program	2	Cor	urse Title Vermiculture and Vermicomposting					
After successfully completing this course, the students will be able to:	3	Cor	ırse Type					
Course Learning	4	Pro						
Course Learning Outcomes (CLO) Cultivate the skills of vermiculture. Cultivate the skills of vermiculture and vermicomposting. Cultivate the skills of vermiculture. Cultivate the skills of vermiculture and vermicomposting methods. Create entrepreneurial prospects in this field. CreditValue								
Cultivate the skills of vermiculture and vermicomposting.								
Understand the challenges in vermiculture and vermicomposting.			_	vermicomposting.				
Analyze the features of different vermicomposting methods. Create entrepreneurial prospects in this field. 2 CreditValue 2 Credits (1C+1C) 7 Total Marks Max.Marks:50 Min Passing Marks:20 Part - B: Content of the Course Total No. of Teaching-learning Periods: Theory-15 Periods (15 Hrs) and Lab. or Field learning/Training 30 Periods (30 Hours) Topics (Course contents) Topics (Course contents) Popics (Course contents) General Introduction: Distribution and habit, habitat. Food: Phytophagous and Geophagous arithworm. Morphology of earthworm accological categories: Epigeic, Endogeic and Anecic earthworms. Ecological requirements: moisture, temperature, light, pH and, organic matter. Ecosystem services: role played by earthworms in soil ecosystem. Difference between vermiculture and vermicomposting, Role of earthworm and vermicompost in growth of plants. Vermiculture: Definition and features. Selective features of earthworms for vermiculture. Vermiculture: Definition and features. Selective features of earthworms for vermiculture. Vermicomposting: Definition and features. Scientific names and distinguishing features of native and exotic vermicomposting arthworms. (Native Indian earthworms. Perionyx exovatus, Perionyx ceylanensis, European earthworms. Eisenia fetida, Eisenia andrei, South African earthworm biomass (vermiprotein), vermicomposting, physiochemical features and their utility: earthworm biomass (vermiprotein), vermicomposting in Chhattisgarh and India. Ab.Field Key to identify different types of earthworms. Study of divices and instruments of Vermicomposting (NADEP Composting, Bangalore Method, Coimbatore Method & Indoor Method.) Culture of earthworms in Grow Bags. Study of different methods of vermicomposting in (NADEP Composting, Bangalore Method, Coimbatore Method & Indoor Method.) Creation of set up for vermiwash collection. Field Visit to Vermiculture & Vermicomposting sites and interaction with self help groups/personnel engaged in these activities. Projects/ Assignments/ Chart/	5	Ou	tcomes (CLO)	Secretary Control of the Control of				
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PART-C:Learning Resources

Text Books, Reference Books and Others

Text Books Recommended -

- Chauhan, A. (2012) Vermitechnology, Vermiculture, Vermicompost and Earthworms: Vermiculture. Vermicomposting, Vermitechnology and Mirobes, Lambert Academic Publishing, Germany.
- National Institute of Industrial Research, (2010): The Complete Technology Book on Vermiculture and Vermicompost, Published by National Institute of Industrial Research, Delhi-7, India.
- Kumar, A. (2005) Verms and Vermitechnology, APH Publishing.
- Bhatnagar & Patla, 2007. Earthworm vermiculture and vermin-composting, Kalyani Publishers, New Delhi.
- Sultan Ahmed Ismail, 2005. The Earthworm Book, Second Revised Edition. Other India Press, Goa, India.
- Panda Himadri: The Complete Technology Book on Vermiculture and Vermicompost (Earthworm) with Manufacturing Process, Machinery Equipment Details & Plant Layout; Asia Pacific Business Press Inc.
- EIRI Board: Hand Book Of Biofertilizers & Vermiculture.

Online Resources-

- https://agritech.tnau.ac.in/org farm/orgfarm composting.html#:~:text=In%20the%20Banga lore%20method%20of,laid%20over%20the%20moistened%20layer.
- https://www.thepharmajournal.com/archives/2021/vol10issue12/PartAR/11-5-248-926.pdf

Online Resources-

> https://megbrdc.nic.in/publications/fliers-Pamphlets/nadep-composting-english.pdf

PART-D:Assessment andEvaluation

Suggested Continuous Evaluation Methods:

MaximumMarks: 50 Marks

ContinuousInternal Assessment(CIA):15 Marks

EndSemesterExam(ESE):35Marks

Continuous Internal Test / Quiz-(2): 10 & 10 InternalAssessment(CIA)(|Assignment/Seminar + Attendance-05

Better marks out of thetwo Test / Quiz +obtained marks in Assignment shall be

By Course Coordinator)

Total Marks -

considered against 15 Marks Managed by

End Semester Exam (ESE):

Laboratory / Field Skill Performance: On spot Assessment A. Performed the Task based on learned skill - 20 Marks B. Spotting based on tools (written)

C. Viva-voce (based on principle/technology) - 05 Marks

-10 Marks

Coordinator as per skilling

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