

E.M.G.YADAVA WOMEN'S COLLEGE, MADURAI-14.

(An Autonomous Institution - Affiliated to Madurai Kamaraj University)

(Re-accredited with 'A+' Grade by NAAC)

**DEPARTMENT OF ZOOLOGY - UG
CERTIFICATE COURSE
CBCS****VERMITECHNOLOGY**

(w.e.f. 2022-2023 batch onwards)

Course structure

- This course is open to all UG second year.
- Period of study III & IV semester

Duration: 90 hrs**Credits : 2**

S.No	Subject Code	Title of the paper	Exam Duration	Marks Allotted		
				CIA	SE	Total
1.	23ZC1	Theory : Vermitechnology	3Hrs	25	75	100
2.	23ZCP	Lab in Vermitechnology	3Hrs	40	60	100

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CERTIFICATE COURSE

Title of the Paper : Vermitechnology

Contact Hours : 60

Subject Code : 23ZC1

Objective:

1. The course is structured at the basic level for the benefit of the students coming from different discipline having broad scope for employability.
2. In general soil earthworms influence on soil fertility and solid waste management are included.
- 3 some Indigenous methods, role of microbes in increasing the soil fertility by the action of earthworms, their advantages and limitations dealt.
4. Students will be trained on how to maintain a small vermicompost bin as a simple method for converting the Kitchen waste.

Unit-I Introduction-Scope & Importance of Vermitechnology- Classification of earthworms – External morphology of earthworm.

Unit – II Selection of earthworm species for composting - Collection and preservation of earthworms for Vermicomposting - Vermiculture techniques.

Unit – III Raw materials for Vermicomposting- Maintenance of composting- Methods of Vermicomposting –Collection of Vermicompost - vermiwash.

Unit – IV Role of Earthworms in organic farming -Use of Vermicompost for crop production, Land improvement and Reclamation –Recycling of Wastes through Vermicomposting.

Unit – V Large scale manufacture of Vermicompost, Packaging of Vermicompost and its Marketing-Financial supporting- from Government and NGOs for vermiculture works.

Text book:

- 1.M. Seethalekshmy & R.Santhi , “*Vermitechnology*”, Saras Publications 2012

Reference Book:

1. Edwards,C.A.,Bohlen,P.J, Lindon,D.R and Subler,S “*Earthworms in Agroecosystems*. In:Earthworm Ecology and Biogeography in North America” Lewis Publisher,Boca Raton., FL,PP:185-213.1995.
2. Edwards,C.A & Bohlen,P.J.,, “*Biology and Ecology of Earthworms*” 3rd Edition.,Springer Science & Business Media, 1996.
3. Mary Violet Christy ,A., “*Vermitechnology*”, MJP Publishers. 2008.

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CBCS**DEPARTMENT OF ZOOLOGY – UG**

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CERTIFICATE COURSE

Title of the Paper : Lab in Vermitechnology

Contact Hours: 30

Subject Code : 23ZCP

Objective:

1. Key to identify different types of earthworms
2. Field trip- Collection of native earthworms & their identification
3. Study of Systematic position, habits, habitat & External characters of *Eisenia fetida*
4. Study of Life stages & development of *Eisenia fetida*
5. Study of Life stages & development of *Eudrilus eugeniae*
6. Study of Vermiculture technique,
7. Preparation and collection of Vermiwash
8. Preparation of vermibeds and maintenance of vermicompost
9. Harvesting, packaging, transport and storage of Vermicompost and separation
10. Documentation report based on their home Vermicompost unit