

# TRIPURA UNIVERSITY

(A Central University)  
Suryamaninagar- 799022  
West Tripura

## Four Years Undergraduate Programme (As per NEP- 2020)

### Vocational Courses:

1. Electronics Technology
2. Tourism Transport and Travel Management
3. Company Law and Practice
4. Office Procedure and Practice
5. Desktop Publishing
6. Mushroom Biology and Production
7. Vermiculture and Vermicomposting



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**Syllabus for Vermiculture and Vermicomposting  
(UG Course)**

**Unit – I  
(Vermiculture)**

1. About Earthworm:  
Basic body structure of earthworm (General body plan, Prostomium, Peristomium, Metamerism, Cuticle, Setae, Different body pores, Clitellum, Digestive system).
2. Earthworm Ecology:  
Distribution; Food habit and habitat; Ecological requirements: moisture, temperature, pH, organic matter etc.; Ecological categories: Epigeic, Endogeic and Anecic earthworms; Ecosystem services i.e. role played by earthworms in soil ecosystem.
3. Reproduction:  
Hermaphroditism, Copulation and cocoon formation, Cocoon structure, Incubation period of cocoon in vermicomposting earthworm, Fecundity in surface dwelling (epigeic) and soil dwelling (endogeic and anecic) earthworm.
4. Vermiculture:  
Definition, Difference between vermiculture and vermicomposting, Selective features of earthworms for vermiculture and vermicomposting, Method of vermiculture of phytophagous and geophagous earthworm, Utility of vermiculture (protein source for pisciculture, poultry farming, piggery etc., application in vermicomposting).

**Unit – II  
(Vermicomposting)**

1. Vermicomposting:  
Definition, Habitat of vermicomposting earthworms, Scientific names of native and exotic vermicomposting earthworms (Native Indian earthworms: *Perionyx excavatus*, *Perionyx ceylanensis*, European earthworms: *Eisenia fetida*, *Eisenia andrei*, South African earthworms: *Eudrilus eugeniae*), Selective features of earthworm species for vermicomposting.