

Academic Council Meeting No. and Date : 03 / February 14, 2022

Agenda Number : 6

Resolution Number : 12 / 5.2



**Vidya Prasarak Mandal's
B. N. Bandodkar College of
Science (Autonomous), Thane**



**Certificate Course
in
Solid Waste Management**

**With effect from
Academic Year 2022-2023**

Certificate course on Solid Waste Management

Preamble:

Solid waste is one the major environmental concern in cities. A metropolitan city like Thane, produces 200 tonnes of solid waste everyday, which finally goes to open dumping and resulting in diseases and poor sanitation. Fundamental solution to this problem is to reduce amount at the source itself. VPM's B. N. Bandodkar is a premier institute in Thane which has been actively working in environment education and outreach activities such as E-Waste collection drive, Tetra-pack recycling, Eco-lecture series, Electricity & Water audit of the college campus, butterfly garden etc. This course is a step ahead in the same direction to educate, aware and empower people to manage solid waste from their households or apartment and also get benefited from it. The course includes theory, practical sessions as well as field visits. The module introduces learner to various kinds of solid waste, its segregation & treatment process. It also includes hands-on-demo to prepare household level Biocompost bin along with other practicals. The course will help learners in scientific developing approach and entrepreneurship in the field of solid waste management. This initiative will reduce solid waste in the urban area at source thereby abating the problem of solid waste pollution, making the city clean & green.

Objective

- Developing a scientific perspective about problem of solid waste.
- To educate and aware people about immediate need to manage solid waste, its impacts and treatment.
- To promote and guide learners to be entrepreneur in the field of Solid waste management.

Outcomes

- Decrease the pollution in the area occurring due to unsustainable solid waste disposal practices.
- Create awareness among society about responsibility for sustainable waste management.
- Green manager who by virtue of his knowledge will work to reduce solid waste problem in the society, altogether for sustaining the environment.

Eligibility: B.Sc. or M.Sc. with a degree with any subject in Biological Science. Any personnel with interest can also apply.

Certificate Course Solid Waste Management

CourseCode	Course Title	No. of lectures	Credits
BNBCCWM1T1	Solid Waste Management	6	2
BNBCCWM1P1	Practical	24	

Syllabus Module (30 lectures; 01 Credit)

	Theory	
Unit No.	Topics	No. of Lectures
1	Introduction to Solid Waste and Impact of Solid waste on Humans and Ecosystem. Types and Classification of Solid Waste.	1
2	Biomedical Waste and its management: Classification, Segregation, Transportation, Treatment and Disposal, rules and regulations.	1
3	E-waste: Sources, Classification, Segregation, Treatment and Disposal, Rules and regulations.	1
4	Radioactive Waste: Sources, Segregation, Transportation, Control and management (Disposal) rules and regulations.	1
5	Domestic and Municipal Waste: Sources, Composition, Segregation, Disposal, rules and regulations.	1
6	Case Studies: Solid waste management in major cities (Minimum 03 case studies).	1
	Practical	
1	Demonstration of Biocompost at Society level	4
2	Demonstration of Vermi-compost	4
3	Demonstration of preparation of household Biocompost bin	4
4	Visit to Wet Waste Treatment facility	6
5	Visit to Biomedical Waste Treatment Plant	6

Evaluation

Sr. No	Evaluation Pattern	Marks
1	Theory exam	60
2	Internals	10
2	Presentation based on case studies (Other than those covered in the syllabus) and presentation based on it.	30 (Presentation: 20 + Report: 10)
	Total	100

Students have to pass in both sections separately with minimum 40% marks.

Theory Examination: Suggested Format of Question paper

Duration: 3 Hours

Total

Marks: 75 All questions are compulsory

Q. 1	Based on Unit I	10
Q. 2	Based on Unit II	10
Q. 3	Based on Unit III	10
Q. 4	Based on Unit IV	10
Q. 5	Based on Unit V	10
Q. 6	Based on Unit VI	10

Each question may have following subquestions

Short answer question 5 Marks

Short note questions 5 Marks

Objectives 1 Marks

Internal Assignments have to be submitted in the hard copy format in the department

Course Code	Description	Marks
	Total of Internal Assignments	10
	Total of Theory Examination	60
	Total of Practical Examination	30
Total		100

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