

M.Sc. Environmental Science (Credit System)

Goal of the syllabus : To impart the thorough knowledge of Environmental Science, capability of self thinking, self study, identifying the problems and develop the problem solving attitude. To make the student globally competent.

SEMESTER I

Objective :

To introduce the student of the sufficient knowledge of various broad areas of Environmental Sciences , to improve the Scientific communication skills and to orient the students coming from discipline of Science, to Environmental Sciences.

101	Introduction to Environmental Sciences	5 Credit
102	Introduction to Environmental Biology	5 Credit
103	Introduction to Geosciences	5 Credit
104	Introduction to Atmospheric Science	5 Credit
105	Introduction to Environmental Chemistry	5 Credit
106	Practical based on 101 to 105	5 Credit
		30 Credits

SEMESTER II

Objective :

Students should be familiar with principle components of Environment, environmental problems and solutions available to these problems.

201	Environmental Pollution	5 Credit
202	Environmental Economics	5 Credit
203	Statistical Techniques	5 Credit
204	Computer Techniques	5 Credit
205	GIS and Remote sensing	5 Credit
206	Practical based on 201 to 205	5 Credit
207	Summer Training + Seminars + Term paper (Summer Vacation between 1 st & 2 nd Year)	3 Credit
		33 Credits

Note :

1. Seminars will be held on various topics allotted by the department in second, third and fourth semesters.
2. Term papers : Every students must submit 1st term paper at the end of 3rd semester. It should consist of any specific topics related to Environmental Science. Term paper should be selected upon the consultation with the senior faculty members of the department. Term paper should address the following.
 - a. History of the topics
 - b. Practical relevance
 - c. Techniques used (Historical and Current)
 - d. Case study (If applicable)
 - e. Current development.

Presentation on term paper should be given at the end of 3rd semester.

SEMISTER III

Objective :

To make students competent to manage various crucial areas of environment

301	Environmental law , Ethics & policies	5 Credit
302	Environmental management : EIA & Environmental auditing	5 Credit
303	Biodiversity conservation and Restoration Ecology	5 Credit
304	Solid Waste and Waste water Engineering and management	5 Credit
305	Water shade Management	5 Credit
306	Practical based on 301 to 305	5 Credit
		30 Credits

SEMISTER IV

Objective :

To equip the student with skill and knowledge required to start the career of his /her own choice in Environmental Sciences

01	Dissertation or Internship or Course work Other Suggestion :	7 Credit
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Assigning minimum and maximum lectures for each topics .

Reserving lectures on current developments in each course .

Standardized format of internal assessment :

Term paper and seminar (on assigned topic) - 30 Marks

Test - 20 Marks (One objective type paper per course)

Standard guidelines for practicals.

Out of total credits, up to 25 Credits from other department may be accepted .

Philosophy of Science, research Methodology, Scientific writing and Communication skills should be dealt in the introduction to environmental Sciences Courses.

Attend courses to improve job opportunities of the students may be designed by the faculty from time to time. The faculty should design the syllabus and provide reference material in the beginning of the semester. Each course may be updated by the concern faculty to include current topics.

Guidelines for internship, dissertation and Course work from other departments /institutions

Internship : Students should contact the industry of his/her choice in second semester with the consent of HOD . Students will join the approved industry as trainee and will work in the industry till the end of 4th semester. Such students will give to seminars i.e. 1st in the mid of training and 2nd at the end of training, also student will submit the report about his work carried out in the industry. 40 % assessment would be done by the supervisor from the industry and 60% assessment will be done by the department considering the seminars given and submitted report.

Course Work: Students may opt for courses being offered by other university departments or institutions outside the university e.g. ISO 14000, 9000 etc. Assessment will be carried out either by university department (100%) and 40% by course work agency (if out of the university) and 60% by the department by way of presentation and report.

Note:

- 1 Expense for such courses will be borne by the student himself
- 2 Students can join the course work outside the university that are approved and recognized the University of Pune/government and semi government institutions.
- 3 While selecting course work department will consider the total number of contact hours (actual teaching clock hours) while deciding the credits (i.e. 15 lectures=1 credit)