

School of  
Engineering & Technology



**BE WHAT  
YOU WANT  
TO BE**

**NAVRACHANA  
UNIVERSITY**



# MSC

## ENVIRONMENTAL

## SCIENCE & TECHNOLOGY

2018 - 19

The Master of ***Environmental Science & Technology*** equips student with the skills needed to provide an in-depth understanding of methods and technologies required to manage environmental projects.

Our world is facing an ever-increasing number of environmental problems which requires training experts with high level of ethical standards to advice industry, government and community sectors. The skills required to become a specialist in this area include:

- strong understanding of science related to environmental change
- expertise in interpreting data
- knowledge of current and emerging technologies
- capabilities to design and conduct research projects
- communication skills to persuade a wide range of audiences
- ability to function independently and professionally

This program offers these skills and prepares students with a competitive edge necessary to compete in the current core environmental professions.

In final year, a capstone research project will consolidate students' learning.



## Career Outlook

The growing global focus on environmental issues has opened up a large number of environment-related jobs. There is a shortage of qualified *environmental science & technology* professionals who can offer comprehensive service related to challenges confronting to the environment. Therefore, a large number of professionals with a postgraduate qualification in *environmental science & technology* will be needed. Graduates with a multidisciplinary skill set will be better equipped to analyze complex environmental problems and prepare careers in environmental management, research and policy development within the public and private sectors. They will serve as experts in:

- environmental consultancies
- government & semi government agencies
- resource management
- research and academics
- industries

## Industry Connect

The Environmental ***Science & Technology*** program is designed for students to receive real-life education through interaction with industry and community organizations. In several courses, industry partners and government agencies like CPCB and GPCB will deliver lectures and participate in classroom activities like project proposal development, client relations, and risk management.

## Eligibility

*Environmental Science & Technology* program requires candidates to have completed one of the following degrees **B.Sc.** (*Environmental Science, Chemistry, Botany, Zoology, Biochemistry, Biotechnology, Microbiology, Genetics, Bioinformatics, Physics, Applied Sciences, Life Sciences, Geography, Geology, Agriculture and Forestry*) with Chemistry as one of the subsidiary subjects, **B. Pharma, B.Tech. / B.E.** (*Civil, Environmental and Chemical*).



## Program Structure

*Environmental Science & Technology* requires **88** credits to graduate.

Students will receive multidisciplinary education using methods that are based-in interactive and hands-on learning. During the first three semesters, students will follow a sequence of **Knowledge, Comprehension** and **Application**. In the final semester they will focus on higher order of education through skill-based learning that deal with **Analysis, Synthesis and Evaluation**.

### Year 1

Year-1 consists of fourteen compulsory science courses to help understanding of concepts of ecological, physical and environmental science. Student will develop a theoretical perspective on analytical instrumentation and laboratories will focus on behavior of pollutants.

Elective courses will help develop expertise in Social Science / IT / Management / Research Methodology.

### Year 2

Year-2 will focus on approaches to environmental issues through methods that are hands-on and applied problem-solving. It will lay emphasis on technology, mechanics of science and ecosystem, and industrial safety and environmental legislation.

Elective courses will help develop expertise in Environmental Hydraulics and Hydrology / Industrial Psychology.

**Student undertakes a research project in their interest area.**

## Learning Outcomes

Our graduates will become top-notch environmental stewards and offer advice professionally, personally and socially. They will demonstrate:

- Understanding of science related to environmental change and evolution
- Expertise in interpreting complex data related to environmental problems and challenges
- Expertise in knowledge needed to solve current and emerging technologies
- Understanding related to questions they need to ask and in-depth research they need to conduct.
- Expertise in communicating environmental issues to a wide audience
- High level of autonomy in the way they function
- Expertise in solving complex social and ethical problems confronting the industry and the government

