Hindi Vidya Prachar Samiti's

RAMNIRANJAN JHUNJHUNWALA COLLEGE (AUTONOMOUS)

(Also known as R. J. College of Arts, Science & Commerce as per UGC Notification)

Affiliated to UNIVERSITY OF MUMBAI II Recognized by UGC under 2f & 12B
NAAC Accredited 'A GRADE' with CGPA 3.50

Knowledge is all Ambrosia

CERTIFICATE COURSE IN

ENVIRONMENTAL SCIENCE

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Opposite Railway Station, Ghatkopar (W),
Mumbai 400 086, Maharashtra, INDIA.

CERTIFICATE COURSE IN **ENVIRONMENTAL SCIENCE**

ABOUT US

Hindi Vidya Prachar Samiti was incepted on the auspicious day of Shri Krishna Janmashtami, 15th August 1938. A brain child of a visionary Late Shri Nandkishore Singh Jairamji, samiti was established with the objectives of catering to the educational needs of the Hindi speaking community. Ramniranjan Jhunjhunwala College came into existence in 1963, enabling a larger section of the society to take advantage of the facilities provided for higher education.

From 1999-2000 the College has added a number of self-financing courses like B.M.S., B.B.I., B.Sc. in Computer Science, Information Technology, Biotechnology, M.Sc. in Computer Science, Biotechnology and Information Technology as well as add on courses, which further hone the special skills of the students.

The college has been reaccredited with 'A' Grade by NAAC in 2014 with a CGPA 3.50 and received the Best College Award (2007-2008) of the University of Mumbai. The College has been bestowed with IMC "Ramkrishna Bajaj Performance Excellence Trophy", 2010.

The Principal of the college was awarded "Best Teacher" by Government of Maharashtra in 2011.

Government of Maharashtra conferred the college with "JAAGAR JAANIVANCHA" (First in Mumbai Suburban- in 2013 and Second in Mumbai Suburban- in 2014) for safety of girls.

Course Code: RJCHEC04

Duration: 30 hours

Credits : 02

LEARNING OUTCOME

At the end of this course student will be able to

- Understand the various factors responsible for environmental pollution
- Learn about the analytical techniques to monitor and control air, water, soil and noise pollution.
- Uses of Green Chemistry and its applications

COURSE CONTENT

Module 1: General Perspectives, environmental components, Resources, Ecosystem & Pollution

1. Soil pollution, solid waste generation, management and waste disposal and processing techniques, waste reduction, product Introduction to environmental science, an overview of atmosphere.
2. Natural resources, ecosystem, material cycles
3. Environmental Pollution, Pollution monitoring, Pollutant stability and Pollution reduction.
4. Air pollution: Air pollutant, photochemical smog. Effects of air pollution, effects of indoor air pollutants, Urban air quality management and national ambient air quality status.
5. Monitoring and remediation of air pollution.
6. Water pollution, Water chemistry, nature of water pollutants, quality degustation, monitoring and remediation of water pollution, marine pollution, oil pollution, oil spill-clean-up options.
7. Soil pollution, solid waste generation, management and waste disposal and processing techniques, waste reduction, product recovery and recycling.
8. Noise pollution, concept of sound, noise and hearing problems, effect of noise pollution, noise mapping and abatement of noise pollution.

Module 2: Current Environmental Issues, Health and environment, Environmental Planning Management, Green Chemistry & quality assessment

1. Global warming, greenhouse effect, global ozone problem, acid rain, global CO_2 rise and impact on biosphere.
2. Vehicular pollution, radiation hazards, energy management, Toxicology, Natural disasters.
3. Health and environment, World health report, Immunology and human diseases, allergies due to environmental impacts.
4. Environmental planning, Managing the natural resources, Land use policy in India.
5. An introduction to Green Chemistry and its applications.
6. Analytical techniques: Monitoring techniques for the quality of air, water and soil.

English

MEDIUM OF INSTRUCTION

EVALUTION **Continuous evaluation**

100 MARKS

PASSING 40

WHO SHOULD DO IT?

Any student and teaching staff from Science faculty