

Syllabus of MDC for FYUGP 1st semester
Title of the paper: PUBLIC HEALTH AND ENVIRONMENT
Course code: MDCN 101
Category of course: MDC

Course Objectives

The objective of this course is to help students understand that being healthy is not just the absence of disease, but a state of complete mental, physical, and social well-being. The course also provides students with an understanding of how environmental factors such as air, water, and climate directly affect human health.

Course learning outcomes

Students will gain a comprehensive understanding of how environmental factors, including air, water, and climate, impact human health. Additionally, the curriculum addresses waste management protocols and sustainable practices adopted by rural communities.

Course Structure & Credit Distribution

- **Total Credits:** 3 Credits
- **Hours of Teaching:** 45 Hours
- **Total Marks:** 30 (Internal Assessment)+ 70 (End-Semester Examination) = 100

Course Content

THEORY

Unit 1: Introduction: WHO definition of Health, Environmental Hazards: Sources & Identification, Fate of toxic and persistent substances in the environment. (9 Lectures; 15 Marks)

Unit 2: Greenhouse gases and global warming, acid rain, ozone layer destruction, effect of climate change on public health; Traditional practices of rural communities regarding water conservation, and sustainable living. (13 Lectures; 20 Marks)

Unit 3: Air, water, soil and noise pollution, sources and control of pollution, Waste Management; Sources, types and characteristics, solid waste disposal, biomedical waste handling and disposal, nuclear waste handling and disposal, waste from thermal power plants, case histories on Bhopal gas tragedy, Chernobyl disaster. (13 Lectures; 20 Marks)

Unit 4: Diseases in relation to environmental conditions: Causes, symptoms and control of asthma, cholera, minamata, typhoid. (10 Lectures; 15 Marks)

Text/References

1. Vasudevan, N. (2006). *Essentials of Environmental Science*. Narosa Publishing House, New Delhi
2. Singh, J. S., Singh, S.P. and Gupta, S. (2006). *Ecology, Environment and Resource Conservation*. Anamaya Publications, New Delhi.
3. Frumkin, H. (2016). *Environmental Health: From Global to Local*. Jossey-Bass / Wiley, San Francisco.
4. Rogers, P.P., Jalal, K.F. and Boyd, J.A. (2008). *An Introduction to Sustainable Development*. Prentice Hall of India Private Limited, New Delhi.
5. Bharucha, E. (2005). *Textbook of Environmental Studies for Undergraduate Courses*. Universities Press, Hyderabad.