

Teaching Health and Environment Science

Grade XII

FM 50

PM 18

Teaching hrs: 75

Introduction:

This course is an introduction to the teaching Health and Environment Science curriculum at lower secondary schools and it is designed to impart basic skills and knowledge essential for Environment Science teachers at lower secondary level. Health and Environment Education has become topics of increasing concern to individuals and community. In order to maintain good health, people should get opportunities to understand the importance of knowledge on Health and Environment. This course is designed for students of higher secondary level, class XII in order to make them familiar both with teaching skill and the subject matter related to the school level Health and Environment science curriculum. This course will develop competencies in preparing teaching aids and identifying strategies/approaches for teaching different concept of school level Health and Environment Science for young learners.

General Objectives

The general objectives of the course are to enable the prospective lower secondary teachers who will:

- learn to motivate pupils to study Health and Environment Science.
- able to teach Health and Environment Science subject in primary and lower secondary levels.
- understand and develop skills in Health and Environment Science.

Specific Objectives

On completion of the course, the students will be able to:

- state meaning and importance of Health and Environment Science;
- study primary and lower secondary level of Health and Environment Science curriculum;
- select appropriate teaching methods and techniques for Health and Environment Science teaching in primary and lower secondary levels;
- prepare and use of different teaching aids related to Health and Environment Science;
- study the communicable and non-communicable diseases and their preventive measures;
- explain the source, effect and mitigation measures of different types of pollution;
- describe the concept and effect of environmental degradation;

- explain the eco-system with emphasis on inter-relation between human beings and environment;
- plan and evaluate teaching Health and Environment Science; and
- list and describe the agencies involved in Environmental Education in Nepal.

.Content

Unit I Nature and Philosophy of Health and Environment Science 20 periods

A. Concept and importance of Health and Environment Science in society

- Philosophical aspects of teaching Health and Environment Science
- Nature of Health and Environment Science
- Significance of teaching Health and Environment Science

B. Curriculum

- Study of Health and Environment Science curriculum in lower secondary school level.
- Interrelation of curriculum, textbook and teacher guide.
- Review and analysis of present Health and Environment Science curriculum of lower secondary school level.

C. Selective teaching methods and techniques

- Field trip, observation problem-solving, experimentation, case study, project method.

D. Planning for teaching Health and Environment Science

- Concept, meaning and importance of planning.
- Micro-teaching and practice teaching.
- Classroom management.

E. Instructional materials

- Concept, and importance of teaching materials in Health and Environment Science.
- Importance of textbook and supplementary reading materials for students.
- Technique and procedure of use and preparation of locally available teaching materials.

F. Evaluation

- Introduction
- Continuous Assessment System (CAS)
- Other devices of student evaluation rather than examination.
- Concept,, construction and use of specification chart and item analysis.
- Marking scheme for answer sheet checking and result analysis.

Unit II Teaching Health and Sanitation**15 periods**

- Communicable diseases and their preventive measures
- Tuberculosis, Pneumonia, Gonorrhoea and Syphilis
- Common cold, Measles, Jaundice, Rabies and HIV positive
- Dysentery and Diarrhea
- Some non-communicable diseases and their preventive measures
- Diabetes, Cancer and Heart disease
- Drug Abuse and Addiction
- Adverse effect of tobacco and alcohol on human health
- Meaning and concept of sanitation
- Causes and effect of poor sanitation

Unit III Teaching Source, Effect and Mitigation Measures:**15 periods**

- Air pollution
- Water pollution
- Soil pollution
- Noise pollution
- Radiation/Nuclear pollution
- Pesticide pollution

Unit IV Teaching Natural Environment**15 periods**

- Concept, of Environment
- Ecosystem and its types
- Food chain and food web
- Natural resources (Renewable and non-renewable)
- Bio-geochemical cycle (carbon, nitrogen and water)
- Concept, impact and mitigation measures of environmental degradation

Unit V Teaching Environmental Issues and Agencies**10 periods**

- Global environmental issues (Greenhouse effect, Acid rain, Ozone layer depletion, climate change, deforestation, degradation of bio-diversity)
- Agencies working in the field of environment (Ministry of Environment, Science & Technology, Ministry of Forest & Soil Conservation, United Nations Environment Programme, International Center of Integrated Mountain Development World Conservation Union IUCN (International Union for Conservation of Nature), Worldwide Wildlife Fund, Nepal, Forum For Environmental Journalists)

Evaluation Scheme

The scheme of the evaluation will be as follows:

- Short questions – 8, should attempt any 6
- Long questions – 3, should attempt any 2

Short questions – $6 \times 5 = 30$ marks

Long questions – $2 \times 10 = 20$ marks

Note: Questions should cover all the units included in the course proportionately.

Reference Materials:

1. Panta, R. R.; Environmental Education, Sujata Prakashan, 2065.
2. Gurung, J.B.; Concept of Environmental Education, Bishnu Kumari Prakashika, 2064
3. Neupane, I. P.; Batabaran Sikshya, Taleju Prakashan, 2061.
4. IUCN; Source Book of Environmental Education, The World Conservation Union, 2000.
5. Plumber, J. and Phillip, N.; The Hand Book of Environmental Education, London, 1994.
6. Pandit, C.N. – Methods of Teaching Health and Environment Science, Bidur Prakashan, Kathmandu, 2066