

**PROGRAM AND COURSE OUTCOME OF THE DEPARTMENT OF M.Sc.
ENVIRONMENTAL SCIENCES, SCHOOL OF LIFE SCIENCE**

PROGRAM OUTCOMES

The M.Sc. Environmental Sciences programs impart knowledge of:

- PO1:** Conservation of natural resources,
- PO2:** Socio- ecological aspects,
- PO3:** Pollution of the surrounding natural resources,
- PO4:** Controlling the pollution,
- PO5:** Social issues connected to it,
- PO6:** Impacts of human population on the environment, Public awareness

PROGRAM SPECIFIC OUTCOME:

- PSO1.** Develop skill and capacity of students(post graduate) for industries and task related to environmental management and safeguarding, UGC NET, ASRB NET, UGC GATE, USET and civil services (UPSC, PCS),etc.,

COURSE OUTCOME
M.Sc. ENVIRONMENTAL SCIENCES
Semester I

PAPER NAME: Fundamentals of Environmental Sciences

PAPER CODE: SOLS/EVS-C-001

COURSE OUTCOMES: Students will be able:

1. To gain fundamental knowledge of environmental sciences,
2. To understand the ecosystem population, community, ecological succession, self sustenance of ecosystem,
3. To understand meteorological parameters.

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Man and Environment

PAPER CODE: SOLS/EVS-C-002

COURSE OUTCOMES: Students will be able:

1. To gain knowledge about man and environment, religion, culture and environment,
2. To understand the environmental issues and problems,
3. To understand the politics of ecosystems

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Natural Resource Management

PAPER CODE: SOLS/EVS-C-003

COURSE OUTCOMES: Students will be able:

1. To provides knowledge on Natural resource management,
2. To understand the biodiversity, utilization, conservation, and management,
3. To understand the approaches/ methods and best practices for natural resources management,
4. To understand the sustainable development

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Environmental Chemistry and Instrumentation

PAPER CODE: SOLS/EVS-C-004

COURSE OUTCOMES: Students will be able:

1. To gain Basic knowledge of Environmental chemistry,
2. To understand the chemical composition of air, water chemistry and soil chemistry
3. To understand the toxic chemicals in the environment (air and water)
4. To understand Instrumentation techniques.

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Lab Course-I

PAPER CODE: SOLS/EVS-C-005

COURSE OUTCOMES: Students will be able:

1. To provide practical training related to ecosystem,
2. To provide practical training related to ecological adaptations in extreme environments etc.

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Lab Course-II

PAPER CODE: SOLS/EVS-C-004

COURSE OUTCOMES: Students will be able:

1. To provides practical training related to inventorization of natural resources,
2. To provides practical training related to modern methods/approaches for conservation of natural resources,
3. To provide training related to working and handling of instruments,
4. To determination of dissolved oxygen, Chloride contents, TDS, free CO₂ and heavy metal

Credits: One Lab /practical period of two hour per week over a semester

COURSE OUTCOME
M.Sc. ENVIRONMENTAL SCIENCES
Semester II

PAPER NAME: Environmental Monitoring and Pollution Control

PAPER CODE: SOLS/EVS-C-007

COURSE OUTCOMES: Students will be able:

1. To provides basic knowledge on Environmental Monitoring and Pollution Control
2. To understanding the water pollution, air pollution, noise pollution, radioactive and thermal pollution and solid waste

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Climate Science: Climate Change, Impact, Mitigation and Adaptation

PAPER CODE: SOLS/EVS-C-008

COURSE OUTCOMES: Students will be able:

1. To provides basic knowledge of Climatology
2. To gain basic knowledge of physical and dynamic climatology,
3. To understanding the climatological process
4. To understanding the regional Climatology
5. To understanding the applied Climatology or Responses to Climate Change: Adaptation and Mitigation
6. To understanding the Arctic and Polar Affairs

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Environmental Microbiology, Biotechnology and Environmental Toxicology

PAPER CODE: SOLS/EVS-C-009

COURSE OUTCOMES: Students will be able:

1. To provides basic knowledge of Environmental microbiology,
2. To gain basic knowledge of microbial nutrition,
3. To understanding the microbial ecology, and environmental Biotechnology,
4. To understanding the Imparts knowledge of environmental toxicology,
5. To understanding the toxicity assessment, systemic toxicity,

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Ecology and Ecosystem Services

PAPER CODE: SOLS/EVS-C-010

COURSE OUTCOMES: Students will be able:

1. To gain knowledge of freshwater, terrestrial, Marine and agro ecosystem,
2. To understanding the Goods and services of freshwater, terrestrial ecosystem, Marine ecosystem and agro ecosystem,
3. To understanding the major terrestrial ecosystem in the world
4. To understanding the biomes and Biogeographic realms of worlds

5. To understanding the physico- chemical aspects of estuaries, marine and mangrove ecosystems
6. To understanding the coral Reef: as a specialized oceanic ecosystem
7. To understanding the drivers of degradation of ecosystems and their conservation and management

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Lab Course–I

PAPER CODE: SOLS/EVS-C-011

COURSE OUTCOMES: Students will be able:

1. To provides practical training related to climatology,
2. To provides practical training related to environmental monitoring and pollution control

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Lab Course–II

PAPER CODE: SOLS/EVS-C-012

COURSE OUTCOMES: Students will be able:

1. To provides practical training related to microbiology, biotechnology and toxicology
2. To provides practical training related freshwater, terrestrial, Marine and agro ecosystem goods and services

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Environment vs Development

PAPER CODE: SOLS/EVS- SS-001

COURSE OUTCOMES: Students will be able:

1. To provides knowledge on Growth and development,
2. To understanding the Resource and development,
3. To understanding the Environment *versus* development and conflicts related to environment and development and conflicts resolution mechanism

COURSE OUTCOME
M.Sc. ENVIRONMENTAL SCIENCES
Semester III

PAPER NAME: Environmental Economics and Sustainable Development

PAPER CODE: SOLS/EVS-C-013

COURSE OUTCOMES: Students will be able:

1. To basic knowledge of environmental economics,
2. To understanding the Economic tools,
3. To understanding the Sustainable Development,
4. To understanding the Social Issues and the Environment

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Biodiversity Conservation and Restoration Ecology

PAPER CODE: SOLS/EVS-C-014

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of biodiversity and its utilization,
2. To gain knowledge of conservation and management,
3. To understanding the ecosystem restoration
4. To understanding the management through ecological approaches

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Lab Course–I

PAPER CODE: SOLS/EVS-C-015

COURSE OUTCOMES: Students will be able:

1. To provides practical training related to environmental economics valuation,
2. To provides practical training related to ecosystem restoration and methods for biodiversity conservation

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Environmental Geosciences and Disaster Risk Reduction

PAPER CODE: SOLS/EVS-E-001

COURSE OUTCOMES: Students will be able:

1. To provides knowledge of environmental geosciences and earth system,
2. To understanding the earth's processes and geological hazards,
3. To understanding the environmental geochemistry and land use planning,
4. To understanding the disaster management, rehabilitation, reconstruction and recovery and disaster

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Traditional Ecological Knowledge

PAPER CODE: SOLS/EVS-E-002

COURSE OUTCOMES: Students will be able:

1. To provides knowledge on local traditional Ecological Knowledge,
2. To understanding the cultural, sacred, myth, rituals and beliefs,
3. To understanding the TEK and natural resources management
4. To understanding the knowledge transfer to new generation
5. To understanding the documentation and promotion of TEK

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Remote Sensing, GIS and Environmental Modeling

PAPER CODE: SOLS/EVS-E-003

COURSE OUTCOMES: Students will be able:

1. To provide basic knowledge of remote sensing
2. To understanding the application of Remote Sensing
3. To understanding the geographic information system (RS/GIS),
4. To understanding the environmental Modelling

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Environmental Toxicology

PAPER CODE: SOLS/EVS-E-004

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of environmental toxicology,
2. To imparts knowledge of toxicity assessment, systemic toxicity,
3. To understanding the biotransformation, bioaccumulation and biomagnifications,
4. To understanding the environmental health and risk assessment

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Lab Course–II

PAPER CODE: SOLS/EVS-E-005

COURSE OUTCOMES: Students will be able:

1. To provides practical training related to environmental geosciences
2. To provides practical training Disaster Risk Reduction,
3. To Understanding the Traditional Ecological Knowledge ,
4. To provides practical training Remote Sensing, GIS and Environmental Modeling ,
5. To provides practical training Environmental toxicology,

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Research Methodology and Environmental Statistics

PAPER CODE: SOLS/EVS- SS-002

COURSE OUTCOMES: Students will be able:

1. Students learn the various steps in the field of research,
2. Use and application of instruments in undertaking experimentation,
3. Analysis and presentation of data using statistical tools,
4. Various other means in environmental research and publication

COURSE OUTCOME
M.Sc. ENVIRONMENTAL SCIENCES
Semester IV

PAPER NAME: Environmental Management: EIA and Environmental Auditing

PAPER CODE: SOLS/EVS-C-016

COURSE OUTCOMES: Students will be able:

1. To provides knowledge on Environmental impact assessment,
2. To imparts knowledge of methodology of EIA,
3. To understanding the public participation in sound environmental decision
4. To understanding the environmental clearance procedures,
5. To understanding the monitoring and auditing of environment,
6. To understanding the environmental management plan for developmental projects

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Environmental Laws, Ethics and Policies

PAPER CODE: SOLS/EVS-C-017

COURSE OUTCOMES: Students will be able:

1. To provides knowledge related to national and international efforts for environmental protection,
2. To imparts knowledge of national laws and policies linked to environment management

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Lab Course–I

PAPER CODE: SOLS/EVS-C-018

COURSE OUTCOMES: Students will be able:

1. To provides practical training related to EIA and EMP,
2. To provides practical training related to Environmental auditing,
3. To provides practical training related to national laws And policies

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Dissertation

PAPER CODE: SOLS/EVS-E-006

COURSE OUTCOMES: Students will be able:

- To the studies on problem identification and data collection, compilation and analysis for designing strategies for conservation/management of environment and socio economic development

PAPER NAME: Mountain Ecology

PAPER CODE: SOLS/EVS-E-007

COURSE OUTCOMES: Students will be able:

1. To provides knowledge on importance of mountain ecosystem services,
2. To imparts knowledge of hazards and natural disaster related to mountain areas,
3. To understanding the livelihood of mountain communities,
4. To understanding the conservation and management of mountains and its precious resources

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Himalayan Wildlife

PAPER CODE: SOLS/EVS-E-008

COURSE OUTCOMES: Students will be able:

1. To provides knowledge of Himalayan wildlife and suggests best possible approaches
2. To understanding the strategies for wildlife conservation and management

Credits: One Theory period of one hour per day over a semester

**PROGRAM AND COURSE OUTCOME OF THE DEPARTMENT OF
PG DIPLOMA IN ENVIRONMENTAL MANAGEMENT**

PROGRAM OUTCOMES

The P. G. Diploma in Environmental Management programs impart knowledge of:

PO1: Course designed for the better understanding of environmental issues and problems,

PO2: Identification of strategies for conservation and management of the natural resources

PROGRAM SPECIFIC OUTCOMES

PSO1. Develop skill and capacity of students (post graduate) for industries

PSO2. Task related to environmental management and safeguarding

COURSE OUTCOME
PG DIPLOMA IN ENVIRONMENTAL MANAGEMENT
Semester I

PAPER NAME: Introduction to Environment

PAPER CODE: SOLS/EVM-C-001

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of environment and its interaction with human being,
2. To understanding the study of various ecosystems, composition
3. To understanding the standards of Air and Water quality measurement
4. To imparts knowledge of meteorological parameters

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Natural Resources Management

PAPER CODE: SOLS/EVM-C-002

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of principles of Natural Resource Management,
2. To imparts knowledge of biodiversity conservation,
3. To understanding the utilization and management,
4. To understanding the approaches/methods and best practices for natural resources management and sustainable Development

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Environmental Economics, Sociology and Sustainable development

PAPER CODE: SOLS/EVM-C-003

COURSE OUTCOMES: Students will be able:

1. To provide basic knowledge of environmental economics,
2. To imparts knowledge of Economic tools,
3. To understanding the Sustainable Development
4. To understanding the social Issues and the Environment

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Environmental Monitoring, Pollution and its Control

PAPER CODE: SOLS/EVM-C-004

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of monitoring of environmental and its pollutants (air, water, noise, radioactive, thermal),
2. To understanding the management of solid waste

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Lab Course-I

PAPER CODE: SOLS/EVM-C-005

COURSE OUTCOMES: Students will be able:

1. To provides practical training related to ecosystem,
2. To provides practical training related to ecological adaptations in extreme environments

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Lab Course-II

PAPER CODE: SOLS/EVM-C-006

COURSE OUTCOMES: Students will be able:

- To provides practical training related to sampling and monitoring of various environmental pollutions

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Mountain Ecology

PAPER CODE: SOLS/EVM-SS-001

COURSE OUTCOMES: Students will be able:

1. To provides knowledge on importance of mountain ecosystem services,
2. To imparts knowledge of hazards and natural disaster related to mountain areas,
3. To understanding the livelihood of mountain communities,
4. To understanding the conservation and management of mountains and its precious resources

COURSE OUTCOME
PG DIPLOMA IN ENVIRONMENTAL MANAGEMENT
Semester II

PAPER NAME: Disaster Management

PAPER CODE: SOLS/EVM-C-007

COURSE OUTCOMES: Students will be able:

1. To gain basic concepts of Disaster and Disaster management,
2. To understanding the rehabilitation, reconstruction and recovery and disaster

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Environmental Management

PAPER CODE: SOLS/EVM-C-008

COURSE OUTCOMES: Students will be able:

1. To gain basic concepts and overview and methodology of EIA,
2. To understanding the public participation in sound environmental decision
3. To understanding the environmental clearance procedures,
4. To understanding the monitoring and auditing of environmental and developmental projects

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Lab Course-III

PAPER CODE: SOLS/EVM-C-009

COURSE OUTCOMES: Students will be able:

- To provide basic practical work/ field study related to basic environmental procedures

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Environmental Laws and Policies

PAPER CODE: SOLS/EVS-E-001

COURSE OUTCOMES: Students will be able:

1. To provides knowledge related to national and international efforts for environmental protection,
2. To understanding the national laws and policies linked to environment management

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Dissertation

PAPER CODE: SOLS/EVS-E-002

COURSE OUTCOMES: Students will be able:

1. To understanding the studies on problem identification and data collection,
2. To understanding the compilation and analysis for designing strategies for conservation/management of
3. To understanding the environment and socio economic development

**PROGRAM AND COURSE OUTCOME OF THE DEPARTMENT OF
ADVANCE P. G. DIPLOMA IN ENVIRONMENTAL ECONOMICS**

PROGRAM OUTCOMES

The Advance P.G. Diploma in Environmental Economics programs impart knowledge of:

- PO1:** Course designed for the better understanding of environmental procedures
- PO2:** Evaluation of natural resources
- PO3:** Environmental assets, identification of economic and ecological impact on society,
- PO4:** Development of best-practices for environmental conservation and management.

PROGRAM SPECIFIC OUTCOME

- PSO1.** Trained and develop skill of post-graduates' students for industries and other task related to environmental management and safeguarding

COURSE OUTCOME
ADVANCE P.G. DIPLOMA IN ENVIRONMENTAL ECONOMICS
Semester I

PAPER NAME: Fundamentals of Environmental Sciences

PAPER CODE: SOLS/EVEE-C-001

COURSE OUTCOMES: Students will be able:

1. To gain Fundamental knowledge of environmental sciences,
2. To understanding the ecosystem population, community,
3. To understanding the ecological succession, self sustenance of ecosystem,
4. To imparts knowledge of Meteorological parameters.

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Natural Resources Management and Sustainable Development

PAPER CODE: SOLS/EVEE-C-002

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of principles of Natural Resource Management,
2. To understanding the Biodiversity conservation,
3. To understanding the utilization and management,
4. To understanding the approaches/methods and best practices for natural resources management and sustainable Development

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Environmental Impact and Risk Assessment and Environmental Auditing

PAPER CODE: SOLS/EVEE-C-003

COURSE OUTCOMES: Students will be able:

1. To understanding the basic concepts and overview and methodology of EIA,
2. To understanding the assessment of risk related to natural ecosystem,
3. To imparts knowledge of monitoring and auditing of environmental and developmental projects

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Energy Resources and their Development

PAPER CODE: SOLS/EVEE-C-004

COURSE OUTCOMES: Students will be able:

1. To understanding the study of various renewable and non-renewable energy resources
2. To imparts knowledge of sustainable utilization and management of energy resources

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Lab Course-I

PAPER CODE: SOLS/EVEE-C-005

COURSE OUTCOMES: Students will be able:

- To provides practical training related to basic environmental ecosystem and environment

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Lab Course-II

PAPER CODE: SOLS/EVEE-C-006

COURSE OUTCOMES: Students will be able:

- Lab oriented work related to introduction of energy resources,
- To provides practical training related to techniques and sound utilization and practices

Credits: One Lab /practical period of two hour per week over a semester

COURSE OUTCOME
ADVANCE P.G. DIPLOMA IN ENVIRONMENTAL ECONOMICS
Semester II

PAPER NAME: Environmental Economics, Sociology and Sustainable development

PAPER CODE: SOLS/EVEE-C-007

COURSE OUTCOMES: Students will be able:

1. To basic knowledge of environmental economics,
2. To understanding the economic tools,
3. To understanding the sustainable Development
4. To understanding the social Issues and the Environment

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Green Business, IPRs and International Agreements

PAPER CODE: SOLS/EVEE-C-008

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of IPRs and patents,
2. To understanding the green techniques,
3. To understanding the international agreements related to environment,
4. To understanding the applied environmental economics

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Lab Course-III

PAPER CODE: SOLS/EVM-C-009

COURSE OUTCOMES: Students will be able:

1. To provides practical training related to inventory and survey of natural resources,
2. To provides practical training related to economic valuation,
3. To understanding the traditional knowledge and environmental movements,
4. To understanding the environmental rules and regulations,
5. To provides practical training related to IPRs and Patents

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Environmental Laws and Policies

PAPER CODE: SOLS/EVEE-E-001

COURSE OUTCOMES: Students will be able:

1. To provides knowledge related to national and international efforts for environmental protection,
2. To imparts knowledge of national laws and policies linked to environment management

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Dissertation

PAPER CODE: SOLS/EVS-E-002

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of studies on problem identification and data collection,
2. To understanding the compilation and analysis for designing strategies for conservation/management of
3. To understanding the environment and socio economic development

PAPER NAME: Disaster management

PAPER CODE: SOLS/EVEE-SS-001

COURSE OUTCOMES: Students will be able:

1. To provide basic concepts of Disaster and Disaster management,
2. To understanding the rehabilitation, reconstruction and recovery and disaster

Credits: One Theory period of one hour per day over a semester

**PROGRAM AND COURSE OUTCOME OF THE DEPARTMENT OF
Ph.D. ENVIRONMENTAL SCIENCES**

PROGRAM OUTCOMES

The Ph.D. in Environmental Sciences programs impart knowledge of:

- PO1:** Fundamentals of Environmental Sciences
- PO2:** Research Methodology and Publication Ethics,
- PO3:** Ecology and Ecosystem Services,
- PO4:** Natural Resource Management,
- PO5:** Traditional Ecological Knowledge,
- PO6:** Impacts of human population on the environment, Public awareness,
- PO7:** Climate Change and the Himalayas

PROGRAM SPECIFIC OUTCOMES:

- PSO1.** Develop skill and capacity of students (Ph.D.) for industries and task related to environmental management and safeguarding, High Impactful research
- PSO2.** Analyze the relationship among various physical parameter and their measurement and control

COURSE OUTCOME
Ph.D. ENVIRONMENTAL SCIENCES

PAPER NAME: Fundamentals of Environmental Sciences

PAPER CODE: SOLS/EVS-C/Ph.D. -101

COURSE OUTCOMES: Students will be able:

1. To provide Fundamental knowledge of environmental sciences,
2. To understanding the ecosystem processes,
3. To understanding the biodiversity: Basic principles,
4. To understanding the natural Resources: General Principle.

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Research Methodology and Publication Ethics

PAPER CODE: SOLS/EVS-C/Ph.D.- 102

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of scientific process,
2. To understanding the sampling Designs and Data collection,
3. To understanding the computer applications and Statistics,
4. To understanding the research Ethics and Ethical Issues and Safety Measures

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Ecology and Ecosystem Services

PAPER CODE: SOLS/EVS-C/Ph.D. -103

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of fundamentals of freshwater ecology,
2. To understanding the terrestrial Ecology,
3. To understanding the agro-ecosystem and their management,

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Natural Resource Management

PAPER CODE: SOLS/EVS-E/ Ph.D.-104

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of principles of natural resource management,
2. To understanding the forest and wildlife resources and their management,
3. To understanding the water resources and their management,

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Environmental Impact Assessment

PAPER CODE: SOLS/EVS-E/Ph.D.-105

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of Environmental Impact Assessment (EIA),
2. To understanding the statutory clearance procedure and public consultation
3. To understanding the post-project monitoring and environmental auditing
4. To understanding the environmental management and management plan

Credits: One Lab /practical period of two hour per week over a semester

PAPER NAME: Mountain Ecology

PAPER CODE: SOLS/ EVS-E/Ph.D.106

COURSE OUTCOMES: Students will be able:

1. To provides knowledge on importance of mountain ecosystem services,
2. To understanding the hazards and natural disaster related to mountain areas,
3. To understanding the livelihood of mountain communities,
4. To understanding the conservation and management of mountains and its precious resources

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Traditional Ecological Knowledge

PAPER CODE: SOLS/EVS- C/Ph.D.-107

COURSE OUTCOMES: Students will be able:

1. To provides knowledge on local traditional Ecological Knowledge,
2. To understanding the cultural, sacred, myth, rituals and beliefs,
3. To understanding the TEK and natural resources management
4. To understanding the knowledge transfer to new generation
5. To understanding the documentation and promotion of TEK

Credits: One Theory period of one hour per day over a semester

PAPER NAME: Climate Change and the Himalayas

PAPER CODE: SOLS/EVS- E/Ph.D.-108

COURSE OUTCOMES: Students will be able:

1. To imparts knowledge of Himalayan Climate,
2. To understanding the regional Climatology,
3. To understanding the responses to climate change: adaptation and mitigation

Credits: One Theory period of one hour per day over a semester