**NATIONAL EDUCATION POLICY-2020**

**Skill Enhancement Course (NEW)**

**Geology (**Environmental Geology**)**

**(2023-24)**

**DEPARTMENT OF GEOLOGY FACULTY OF SCIENCE**

**SRI DEV SUMAN UTTARAKHAND**

**VISHWAVIDYALAYA, BADSHAHITHAUL,**

**TEHRI GARHWAL**

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| S.No.  | Name  | Designation  | Signature  |
| 01  | Prof. G. K. Dhingra  | Dean Science  |   |
| 02  | Dr. S. K. Nautiyal  | HOD Geology  |   |
| 03  | Prof. Yashpal Sundriyal  | Subject Expert  |   |
| 04  | Prof. Pushpa Negi  | PG Principal  |   |
| 05  | Prof. Pankaj Pant  | PG Principal  |   |
| 06  | Prof. Kuldeep Singh Negi  | PG Principal  |   |
| 07  | Prof. Anita Rawat  | Director USERC  |   |
| 08  | Dr Pramod Kumar Anthwal  | Faculty Member  |   |
| 09  | Dr Biraj Borgohain  | Faculty Member  |   |

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|  |  | **List of Semester-wise Titles of the Papers in** **Geology (**Environmental Geology**)** **(Skill Enhancement Course)**  |  |  |
| **Year**  | **Sem.**  | **Course Code**  | **Paper Title**  | **Theory/** **Practical**  | **Credits**  |
|  |  | **CERTIFICATE COURSE IN SCIENCE**  |  |  |
| FIRST YEAR | **I**  |  |  Level1: Elementary Environmental Geology  | **Theory**  | **3**  |
| **II**  |  |  Level 2: Natural Resources  | **Theory**  | **3**  |
| SECOND YEAR  | **III**  |  |  Level 3: Earth Processes and Disasters  | **Theory**  | **3**  |
| **IV**  |  |  Level 4: Environmental Problems and Mitigation  | **Theory**  | **3**  |

**Semester I**

**Skill Enhancement Course in Geology**

# Vocational Course (SEC): Environmental Geology

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| UG First Semester: Level1: Elementary Environmental Geology  |
| **Course type,** **paper &** **Credits**  | **Content**  | **Teaching hours**  |
| UG First Semester: Level1: Elementary Environmental Geology   | Unit I: Concept and classification of environmental geology.  | 15  |
| Unit II: Earth system and biosphere, man and environment, Ecosystem, Concept of biodiversity.   | 15  |
| Unit III: Environmental problems, spectrum of environmental geology.   | 15  |

**Semester II**

**Skill Enhancement Course in Geology**

# Vocational Course (SEC): Environmental Geology

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|  | UG Second Semester: Level 2: Natural Resources  |
| **Course type,** **paper &** **Credits**  | **Content**  | **Teaching hours**  |
| UG Second Semester: Level 2: Natural Resources   | Unit I: Natural Resources: forests, land and land use, soils, water.   | 15  |
| Unit II: Elementary idea about non renewable energy resources: economic minerals, coal and Petroleum.   | 15  |
| Unit III: Elementary idea about renewable energy resources. Wind Energy, Solar energy, geothermal Energy, Hydropower, Biomass energy.   | 15  |

**Semester III**

**Skill Enhancement Course in Geology**

# Vocational Course (SEC): Environmental Geology

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| UG Third Semester: Level 3: Earth Processes and Disasters  |
| **Course type,** **paper &** **Credits**  | **Content**  | **Teaching hours**  |
| UG Third Semester: Level 3: Earth Processes and Disasters   | Unit I: Elementary idea of Lithosphere and Plate Tectonics. Brief idea of Earth processes.    | 15  |
| Unit II: Hazards: earthquakes, volcanoes, instability of hill slopes, snow avalanches, floods, coastal hazards.   | 15  |
| Unit III: Natural hazards and their mitigation,   | 15  |

**Semester IV**

**Skill Enhancement Course in Geology**

# Vocational Course (SEC): Environmental Geology

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| UG Fourth Semester: Level 4: Environmental Problems and Mitigation  |
| **Course type,** **paper &** **Credits**  | **Content**  | **Teaching hours**  |
| UG Fourth Semester: Level 4: Environment al Problems and Mitigation   | Unit I: Problems of pollution and wastes, urbanization and climate of cities, waste management.   | 15  |
| Unit II: Biogeochemical factors in environment, human health, disease induced by environment.   | 15  |
| Unit III: Wasteland management, rural development.   | 15  |