Name of Programme: M. Sc. Applied Geology
Course Code: GEO-626
Title of the Course: Practical of Environmental Geology
No of Credits: 01
Effective from AY: 2023-24

Prerequisites for the course	Students should have undergone M.Sc. Semester I and II.	
Objective	To impart knowledge about distribution of natural hazards in India as well as hazards caused by anthropogenic activity. To study and interpret movement of pollutants.	
Content	Preparation of global and Indian natural hazard maps; Preparation of maps indicating major mountain ranges, rivers, regions affected by contamination of water, mining activity in India. Interpretation of transport of pollutants in the subsurface based on given data. Preparation of local level maps of pollution case studies; Preparation of groundwater flow nets and assessment of probable contaminant movement in the subsurface. Using simple computer assisted models problem solving on movement of pollutants in the subsurface.	30 hours
Pedagogy	Plotting and interpretation, problem solving, case studies, discussions and assignments.	
References/ Readings	1. Keller, E. A. (2012). *Introduction to Environmental Geology* (5th edition). 2. Montgomery, C. W. (2010). *Environmental geology.* (9th Edition) Professor Emerita, Northern Illinois University 3. Montgomery, C. W. (2020). *Environmental geology.* (11th Edition) Professor Emerita, Northern Illinois University 4. Pipkin, B. W., Trent, D. D., Hazlett, R., & Bierman, P. (2013). *Geology and the Environment.* Cengage Learning. 5. Valdiya, K. S. (2013). *Environmental Geology: Ecology, Resource and Hazard Management.* McGraw-Hill Education.	
Course outcomes	1. Students will learn about the concepts of environmental geology. 2. Recognize natural and manmade hazards. 3. Suggest mitigation measures related to different environmental problems related to geology. 4. Students will be able to prepare maps of natural and manmade hazards and trace the movement of pollutants.	