

Course title: Geoinformatics for atmosphere			
Course code: NRG 184	No. of credits: 3	L-T-P: 15-15-30	Learning hours: 45
Pre-requisite course code and title (if any): Prior knowledge of remote sensing and image processing			
Department: Department of Natural and Applied Sciences			
Course coordinator(s): Dr Ayushi Vijhani		Course instructor(s):	
Contact details:			
Course type: Elective		Course offered in: Semester 3	
Course description The analysis of satellite measurements is critical in weather, climate studies, air quality etc. and transforming these observations into information is a current challenge in the developing world. This course deals with study of earth's atmosphere using data obtained from geostationary and polar orbiting satellites for meteorological and atmospheric science applications. This course will provide fundamental understanding about meteorological and atmospheric remote sensing as well as operational and future satellite missions. It will also deal with satellite image interpretation for identification of several weather phenomena, cloud types, aerosols etc. This course will further focus on various applications of satellite-derived parameters in meteorology, weather forecasting, air quality and climate monitoring.			
Course objectives 1. To provide fundamental understanding about meteorological and atmospheric processes and its association with coupled human – environment system. 2. To provide fundamental understanding about current and future satellite missions and weather forecasting. 3. To utilize satellite-based observations to monitor the environment, meteorological processes/phenomena and air quality.			