| Course title: Satellite Meteorology | | | |
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| **Course code:** NRG 168 | **No. of credits:** 3 | **L-T-P:** 28-10-14 | **Learning hours:** 45 |

| Pre-requisite course code and title (if any): |
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| **Department:** Department of Natural and Applied Sciences | |
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| **Course coordinator(s):** Dr Ayushi Vijhani | **Course instructor(s):** Dr Adil Masood |
| **Contact details:** ayushi.vijhani@terisas.ac.in | |
| **Course type**: Core | **Course offered in:** Semester 1 |

**Course description**

Satellite Meteorology refers to the study of earth's atmosphere and oceans using data obtained from meteorological satellites. The analysis of satellite measurements is critical in weather and climate studies and transforming these observations into information is a current challenge in the developing world. The course will provide an introduction to fundamentals of meteorological remote sensing as well as operational and future satellite missions. It will also deal with strength and weaknesses of infrared, visible and water-vapour imagery and estimation of meteorological parameters. The course will further focus on various applications of satellite-derived parameters in meteorology and weather forecasting.

**Course objectives**

• To provide fundamental understanding about meteorological and atmospheric processes and its associations with coupled human – environment system

• To provide fundamental understanding about current and future satellite missions and numerical weather forecasting

 • To utilize satellite based observations to monitor the environment and various meteorological processes/phenomena