

This module covers aspects of meteorological processes and analysis of climate records, including sections on the properties of clouds and processes that lead to precipitation formation; the atmospheric boundary layer, which is the lowest part of the atmosphere, in contact with the earth's surface; the formation of hurricanes and their life cycle; the roles of monsoonal systems; UK climate records and the impacts of droughts and floods.

We examine in detail the turbulent exchange of heat, moisture and trace gases between the earth's surface, vegetation and the atmosphere; the urban heat island and dispersion of airborne pollutants; the formation of hurricanes, optical properties of the atmosphere; and variability in the UK climate over the last 350 years.

Four full day practical sessions will use data from the CTL weather station; data other field experiments and historical sources; and a set of optics experiments in the laboratory.

Assessment comprises a series of four practical sessions (50% of total mark) and a two hour, two question exam (50% of total mark).

