

Understanding the hydrological cycle is fundamental to physical geography. All life is supported by water and all earth systems incorporate fluxes of water to some extent. The study of catchment hydrology is concerned with water above and below the land surface and its circulation and distribution in time and space within drainage catchments. The module investigates the main hydrological processes operating in drainage catchments in terms of their measurement, operation and controlling factors. The module provides 'hands-on' experience of both observing hydrology and modelling hydrological systems, with an emphasis on applied learning, which might be useful in a vocational sense in the future.

The module comprises foundation lectures that are supported by four practical exercises to develop themes in more detail, and to develop observational, analytical and modelling skills. Each practical is completed in a single day and comprises a problem to be solved by students working in small groups. The practicals examine flood risk in river catchments, runoff and flood routing to reservoirs, river hydraulics and thermal stratification and mixing in lakes. Students record procedures, measurements, and perform data analysis during the practicals.

Students are assessed by four practical reports.

