

Marine Ecology is a third-year module led by Matthew Spencer, running in the first semester.

The first half of the module will cover contemporary theory in behavioural and physiological ecology, with reference to marine organisms. Students taking the module will acquire advanced knowledge of the diversity of behavioural, life-history, and phenotypic adaptations that are adopted by a variety of marine organism, and the costs and benefits of these behavioural and life-history strategies in different marine species.

The second half will cover the applications of theoretical ecology to marine systems, with particular focus on the dynamics and diversity of communities and ecosystems. We will learn about mathematical approaches to approximating the complicated dynamics of real communities. We will explore in detail the key ecological concepts of the niche and diversity. Finally, we will study the development of ideas about energy flow in ecosystems. Lectures in all these topics will be supported by computer workshops, in which we will use the software package R to analyze data from real marine communities.

The module is assessed by two coursework assignments and an exam.

