



Certificate of Achievement

Matthias Giger

has completed the following course:

INTRODUCTION TO ECOSYSTEMS THE OPEN UNIVERSITY

An ecosystem is a group of organisms and non-living materials linked by processes of energy transfer and cycling of components. The course uses case studies to show how such links are studied and how the physical properties of a particular habitat interact with the organisms that inhabit it.

6 weeks, 3 hours per week



Jake Yeo
Acting University Secretary
The Open University



The person named on this certificate has completed the activities in the attached transcript. For more information about Certificates of Achievement and the effort required to become eligible, visit futurelearn.com/proof-of-learning/certificate-of-achievement.

This learner has not verified their identity. The certificate and transcript do not imply the award of credit or the conferment of a qualification from The Open University.

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INTRODUCTION TO ECOSYSTEMS THE OPEN UNIVERSITY

94%
AVERAGE TEST
SCORE

Humans have an impact that is felt worldwide. We interact with our environment in a myriad ways, often without thought to the consequences. An ecosystem is a group of organisms and non-living components linked by processes of energy transfer and cycling of components and, unless we understand the links, we cannot limit damage, conserve or restore. This course starts with the challenge of producing a working definition of an ecosystem using simple examples that develop a broad understanding.

STUDY REQUIREMENT

6 weeks, 3 hours per week

LEARNING OUTCOMES

- Identify and be able to define an ecosystem.
- Assess and understand the different ways in which a system can be analysed.
- Apply and use your knowledge of the key features of ecosystems to determine interrelationships between organisms in a simple ecosystem.
- Describe adaptations shown by animals to extreme desert and polar environments.
- Engage with and join the iSpot online community, obtain identifications for animals, plants or fungi you have seen and consider any links between them that you could identify.
- Discuss how small organisms in marine systems contribute to energy flow through ecosystems.
- Explain how humans impact on three examples of fragile ecosystems.

SYLLABUS

- Introduction to the concept of an ecosystem and the problems of scoping a useable definition. Applying the definition to an example of a small ecosystem.
- Following a food chain that links a group of organisms. Exploring those links in specific examples and what these reveal. Studying examples of adaptations to particular habitats and extreme conditions, displayed by animals and plants.
- Investigating the diversity of life within different ecosystems and the small organisms that form the base of food chains.
- Undertaking a small project on observing and identifying organisms in a neighbourhood ecosystem and contributing to an online community.
- Using case studies, exploring the impact that humans can have on ecosystems and whether damaging impacts can be reversed. Examples of conservation and the problem of habitat restoration, illustrated by the conservation efforts to maintain a spider population.
- Conserving lowland gorillas, China's Loess Plateau and the Galápagos world heritage site.
- How the problems of the Galápagos illustrate how fragile ecosystems can become and how important it is to understand such systems if we are to maintain them in balance.