



Introduction to Ecosystem (SCIO1241)

Ecosystem is the understanding of organisms in various habitats. This helps us gain insights into ways organisms survive in them, the relationships amongst these organisms and questions about how the activities of human beings affect organisms in these habitats etc. Through the six modules in this online learning programme, students can learn about the main part of the ecosystem, food chains and food webs, recycling of materials, conservation of habitats and knowledge of Hong Kong's local habitats, so as to enhance students' basic understanding of the ecosystem.

Introduction

<p>Module 1: Components of an ecosystem</p> <ul style="list-style-type: none"> Identify the abiotic factors of a habitat and explain their effects Describe the different types of relationships between organisms in a habitat Use food chains, food webs, to represent the feeding relationships of organisms 	<p>Module 2: Nutrient cycling with energy flow through ecosystem</p> <ul style="list-style-type: none"> Understand the efficiency of energy transfer in an ecosystem Understand the cycling of materials in an ecosystem
<p>Module 3: Conservation of ecosystem</p> <ul style="list-style-type: none"> Understand the need for conservation Recognise measures to preserve biodiversity 	<p>Module 4: Effects of urbanization and industrialization on the environment</p> <ul style="list-style-type: none"> Explain the ecological impacts of land clearance and reclamation Recognise strategies for pollution control Recognise and aware the effects of air and water pollution on the environment
<p>Module 5: Effects of rapid human population growth and overexploitation of resources on the environment</p> <ul style="list-style-type: none"> Recognise the impact and control of rapid human population growth Recognise the impacts of malpractices in forestry, fisheries and agriculture 	<p>Module 6: Study of a Local Habitat</p> <ul style="list-style-type: none"> Critically analyse adaptive features of organisms in different habitats Use appropriate instruments and proper techniques for carrying out field study

Programme Type / Level

Online Learning Programme in Science (Level 3) ([Non Token-required](#))

Writer

Mr. Wong Wing Kei (Secondary School Biology Teacher)

Target Participants

➤ S1 – S3 HKAGE student members



* Students who fail the online programme can enrol in it again in the next quarter.
(Quarter ONE: 2 April – 30 June; Quarter TWO: 2 July – 30 Sep;
Quarter THREE: 2 Oct – 30 Dec; Quarter FOUR: 2 Jan – 30 Mar).

Medium of Instruction



English

Intended Learning Outcomes



Upon completion of the programme, participants should be able to:

- Identify the abiotic factors of a habitat and explain their effects;
- Understand the cycling of materials in an ecosystem;
- Recognise measures to preserve biodiversity;
- Explain the ecological impacts of land clearance and reclamation;
- Recognise the impact and control of rapid human population growth;
- Critically analyse adaptive features of organisms in different habitats.

Duration	18 hours
System Requirement	Browser: IE 8 OR above; Firefox 6 OR above; Safari Screen resolution: 1024x768
Application Procedure	 <ol style="list-style-type: none"> 1. Click "HERE" to go to online application platform 2. Complete and submit the online application form 3. You and your parent will receive the Online Application Confirmation email from our system 4. Click "HERE" to access to the moodle platform 5. Use the USERNAME and PASSWORD indicated in the email to login 6. You may start now!
Remarks	<ul style="list-style-type: none"> ● You have to pass the online test in order to complete the course by attempting ONCE only. ● A tick next to an activity name may be used to indicate when the activity is complete. If a box with a solid border is shown, please click it to tick the box when you think you have completed the activity. (Clicking it again removes the tick if you change your mind.)
Enquiries	 For enquiries, please contact us at 3940 0101.

SCIENCES

科學