

## Environmental systems and societies ESS



<http://qsindia.in/iso-14001-environmental-management-system-certi%EF%AC%81cation/>

- interdisciplinary course offered in the Diploma Programme DP
- students can study this course and have it count as either a group 3 course or a group 4 course or as both a group 3 and group 4 course.

### Key features of the curriculum and assessment models

- Available **only at standard level (SL)**
- The minimum prescribed number of **hours is 150**
- Students are assessed both externally and internally
- External assessment consists of two written papers.
- Internal assessment accounts for 20% of the final assessment and is comprised of a series of practical and fieldwork activities.

### Aims

1. acquire the **knowledge and understandings of environmental systems** at a variety of scales
2. **apply the knowledge, methodologies and skills** to analyse environmental systems and issues at a variety of scales
3. appreciate the **dynamic interconnectedness between environmental systems and societies**
4. value the combination of personal, local and global **perspectives in making informed decisions and taking responsible actions on environmental issues**
5. **be critically aware that resources are finite**, and that these could be inequitably distributed and exploited, and that management of these inequities is the key to sustainability
6. develop **awareness of the diversity of environmental value systems**

7. develop critical awareness that **environmental problems are caused and solved by decisions made by individuals and societies** that are based on different areas of knowledge

8. **create innovative solutions** to environmental issues by engaging actively in local and global contexts

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### Assessment objectives

- Paper 1 – case study
- Paper 2 - Section A: answer questions; Section B: two essays from a choice of four
- Internal assessment - Individual investigation

Assessment component	Weighting (%)	Approximate weighting of objectives in each component (%)		Duration (hours)
		1 and 2	3	
Paper 1 (case study)	25	50	50	1
Paper 2 (short answers and structured essays)	50	50	50	2
Internal assessment (individual investigation)	25	Covers objectives 1, 2, 3 and 4		10

### Paper 1

- Students will be provided with a range of data in a variety of forms relating to a specific, previously unseen case study.
- Questions will be based on the analysis and evaluation of the data in the case study.
- All of the questions are compulsory.

### Paper 2

- Paper 2 consists of two sections, A and B.
  - Section A (25 marks) is made up of short-answer and data-based questions.
  - Section B (40 marks) requires students to answer two structured essay questions from a choice of four. Each question is worth 20 marks.
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### Practical activities

Students of ESS are required to spend a minimum of **30 hours** on practical activities (excluding time spent writing up work), with 10 hours for the internal assessment investigation (IA)

## **IA**

Completion of an individual investigation of an ESS research question that has been designed and implemented by the student.

The investigation is submitted as a written report.

- focus on a particular aspect of an ESS issue and apply the results to a broader environmental and/or societal context.
- The investigation is recorded as a written report.
- The report should be 1,500 to 2,250 words long.

## **Core content – topics**

Topic 1— Foundations of environmental systems and societies

Topic 2—Ecosystems and ecology

Topic 3—Biodiversity and conservation

Topic 4—Water and aquatic food production systems and societies

Topic 5—Soil systems and terrestrial food production systems and societies

Topic 6—Atmospheric systems and societies

Topic 7—Climate change and energy production

Topic 8—Human systems and resource use

## **Prerequisites**

Writing skills

Good command of English

Biology IGCSE grade C or higher

## **More info**

**at:**

[https://ibpublishing.ibo.org/ess/apps/dpapp/toc.html?doc=d\\_4\\_ecoso\\_gui\\_15\\_05\\_1\\_e](https://ibpublishing.ibo.org/ess/apps/dpapp/toc.html?doc=d_4_ecoso_gui_15_05_1_e)

or ESS teacher Izabela Wierzbowska i.a.wierzbowska@gmail.com