

# 2023-2025 COURSE OUTLINE

International Baccalaureate
Environmental Systems and Societies
Form 5 and Form 6

The School of the Nations course outline provides parents and students with information about the overall structure of the courses of study, the assessments and expectations.

# **Course Overview**

Environmental Systems and Societies (ESS) is an interdisciplinary course that focus on the scientific exploration of the environmental systems and its interactions with human societies. It explores applications in a wide range of context, founded in atmospheric, terrestrial, aquatic system, issues of energy and population. The course is also complemented by other influences such as economic, historical, cultural, sociopolitical, and scientific factors to provide a holistic approach to environmental issues. Students will look at examples ranging from a variety of scale and in an international context.

In this course, students will:

- Acquire the knowledge and understandings of environmental systems at a variety of scales
- Apply the knowledge, methodologies, and skills to analyse environmental systems and issues and at a variety of scales
- Appreciate the dynamic interconnectedness between environmental systems and societies
- Values the combination of personal, local, and global perspectives in making informed decisions and taking responsible actions on environmental issues
- 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
- Develop awareness of the diversity of environmental value systems
- Develop critical awareness that environmental problems are caused and solved by decisions made by individuals and societies that based on different areas of knowledge
- Engage with the controversies that surround a variety of environmental issues
- Create innovative solutions to environmental issues by engaging actively in local and global contexts

The major units in this course are:

#### Core/Standard Level (120 hours)

- Foundations of Environmental systems and societies
- Ecosystems and Ecology
- Biodiversity and conservation
- Water and aquatic food production systems and societies
- Soil systems and terrestrial food production systems and societies
- Atmospheric systems and societies
- Climate change and energy production
- Human systems and resource use

#### Practical Work (30 hours)

- Practical activities
- Group 4 project
- Individual investigation (internal assessment)

Practical work is an important aspect in the ESS course as many components of this course can only be covered effectively through practical work approaches for students to gain and develop skills and techniques beyond the requirements of the assessment model.

# **IB Approaches to Teaching and Learning**

Approaches to teaching and learning are deliberate strategies, skills and attitudes that permeate the IB teaching and learning environment.

The approaches to learning are:

- Thinking skills
- Communication skills

- Social skills
- Self-management skills
- Research Skills

The approaches to teaching are:

- focused on conceptual understanding
- developed in local and global contexts
- focused on effective teamwork and collaboration
- differentiated to meet the needs of all learners
- informed by formative and summative assessment

# **IB Learner Profile**

The aim of the IB programme is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

IB learners strive to be:

Inquirers

Open-minded

Knowledgeable

Caring

Thinkers

Risk-Takers

Communicators

Balanced

Principled

Reflective

The IB Learner Profile closely reflects the SON Learner Profile, identifying elements of identity which prepares world citizens who will become active, positive and conscientious participants in the advancement of society and in their own development. Each element is composed of a set of attitudes, qualities, understandings, skill and habits. These are incorporated in the teaching and learning process. The details of the SON Learner Profile can be found in the <u>Student and Parent Handbook</u>.

## Grading

The School's grading system for the IB Diploma Programme follows the IBO scale of 1 to 7. A student's performance in individual subjects is graded as follows:

Grade	Interpretation		
7	Excellent		
6	Very Good		
5	Good		
4	Satisfactory		
3	Basic Standard		
2	Poor		
1	Very Poor		

Note: Because of School's internal requirements such as attendance, timeliness and accuracy of homework, special projects, or performance on formative and summative tests in the classroom, students' performance may vary between School assigned grades and IB assessments.

Effort marks are given and recorded in the report cards for Forms 5 and 6 for all subjects.

Grade	Description
5	Consistently demonstrating a high degree of effort in all areas of the subject

4	Frequently demonstrating a high degree of effort in all areas of the subject
3	Generally demonstrating a significant degree of effort in all areas of the subject
2	Occasionally demonstrating effort in some areas of the subject
1	Rarely, if ever, demonstrating effort in some areas of the subject

#### **SON Assessments**

School-based assessments are ongoing and are intended to measure student learning and providing constructive feedback. These assessments include a variety of formative and summative assessments such as quizzes, presentations, field reports, lab reports and end of unit tests.

# **Official IBDP Assessments**

DP assessment procedures measure the extent to which students have mastered advanced academic skills such as analyzing and presenting information, evaluating and constructing arguments, solving problems creatively as well as basic skills such as retaining knowledge, understanding key concepts applying standard methods.

#### **Internal Assessments**

Internal assessment is an integral part of the course and is compulsory for students. It enables students to demonstrate the application of their skills and knowledge, and to pursue their personal interests, without the time limitations and other constraints that are associated with written examinations.

The internal assessment requirements at SL recommend that a total of approximately 10 hours of teaching time to be allocated to the work. The internal assessment, worth 25% of the final assessment, consists of one environmental systems and societies research question that students have designed themselves. The internal assessment will be submitted as an individual written report.

## **Internal Assessment Criteria**

Identifying context	Planning	g Analysis	Evaluation	Application	Communication	Total
6 (20%)	6 (20%)	6 (20%)	6 (25%)	3(10%)	3(10%)	30 (100%)

## **External Assessments**

## **Core/Standard Level**

Component	Overall weighting (%)	Approximate weighting of objective (%)		Duration (hours)
		1+2	3	
Paper 1	25	50	50	1
Paper 2	50	50	50	2
Internal assessment	25	Covers objectives 1,2, 3 and 4		10

## External Assessment Details—SL

Paper 1

Duration: 60 minutes Weighting: 25%

- One resource booklet containing case studies
- One answer booklet for short answer questions with 1 extended question

• The use of a calculator is permitted

#### Paper 2

**Duration: 120 minutes** 

Weighting: 50%

- Section A: Short answer questions each on specific topics
- Section B: Two essays from a choice of four
- No calculator is required

## **SON Term and Exam Mark Weightage:**

The following represents the percentage weight for each academic year:

	Term 1	Term 2	Mid-Year Assessment	Term 3	Final Exam
Form 5	28%	28%	Mid-Year Project* See passing criteria	28%	16%
Form 6	30%	30%	Mid-Year Exam 15%	N/A	25%

# **Passing Criteria:**

F5 Students whose total score is 23 points or above in the six IB Subject Groups will be promoted to the next level, along with:

- satisfactory completion of the Extended Essay requirements for DP year 1
- a final mark of a C or higher in Theory of Knowledge for year 1
- satisfactory completion of CAS (Creativity, Action & Service) activities for year 1
- a total of 12 HL points for students who are on the full diploma track
- no grade 2 or lower in any Higher Level (HL) subject

To graduate from Secondary at the end of F6, students must gain 23 points or above in the six IB Subject Groups, along with:

- completion of the Extended Essay
- a final mark of a C or higher in Theory of Knowledge
- completion of CAS (Creativity, Action and Service) activities
- a total of 12 HL points for students who are on the full diploma track
- no grade 2 or lower in any Higher Level (HL) subject

Should a student's academic performance falls below standard, the School reserves the rights of not registering a student for the full diploma track.

Mid-Year Project\* (Mid-Year Assessment for F5 only)

- Grade must be a 3 or higher
- Assessment will be based on the following criteria:
  - Collaboration
  - Organisation
  - Critical thinking
  - Presentation
  - Reflection

# **Academic Integrity**

Students are expected to uphold a high standard of academic honesty and integrity. All homework, assignments, tests, and exams are expected to represent the student's own effort. All forms of cheating or copying on assignments, tests or exams, plagiarism and other forms of deception to obtain credit are universally recognized as improper and dishonest conduct. Such behaviour is not acceptable and marks will not be awarded for work that does not represent the students' personal effort. Details of the policy regarding academic honesty is outlined in the Students and Parents Handbook.

# **Late Submission of Work**

Assignments and homework are an important component of the teaching-learning process and are expected to be completed with quality and submitted on time. Assignments and homework tasks will be posted on Edmodo.

The following policy will apply for late work submission:

#### **SON Assessments**

Assignments/Projects/ Papers/ Essays/ Presentations

Late submission of work will result in lower grades for Approaches to Learning

#### **IB Official Assessments**

Students may receive a zero for a given component of work if it is not submitted by the assigned deadline.

## **Classroom Materials and Procedures**

Students will need to bring assigned textbooks, study guides and a folder to their lessons. They will need a pen, pencil, eraser, ruler, and a highlighter. The students will be informed in advanced if any additional items are expected to be purchased.

## **Attachments:**

Excerpts or the full version of the IB Subject Guide
Excerpts or the full version of the Internal Assessment Guides
Excerpts or the full version of the IB Grade Descriptors