



Learning@VIS 

VIS GRADE 11-12 CURRICULUM GUIDE 2023-2025

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The VIS Core

VIS is a diverse community of learners who are inspired to thrive in rapidly changing environments. Our learners are guided by a strong core: a clear mission, a progressive vision, meaningful values, and a research-based set of learning principles.

Our Mission

We challenge, inspire, and empower our learners to develop their unique potential in our changing world.

Our Vision

We will lead the way toward a sustainable future

Our Values

We value balance, respect, resilience, innovation and courage

The VIS Learning Principles

We learn when we build and apply new understandings and skills in a variety of contexts. The following research-based learning principles guide our teaching practice:

- **Learners At The Center:** Recognizing learners as core participants and encouraging active engagement.
- **Learners Are Unique:** Engaging all learners and adapting to individual needs.
- **Learners Have Emotions:** Understanding the role of emotion and being aware of individual motivations.
- **Learners Have Potential:** Embracing challenging expectations while understanding individual variations.

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- **Learners Are Collaborative:** Recognizing the value of social interaction to engage with multiple perspectives.
 - **Learners Make Connections:** Linking understandings and transferring learning to new situations.
 - **Learners Are Reflective:** Having a clear purpose, understanding next steps, and using feedback to support growth

Our definition of learning is further underpinned by how we approach intercultural learning at VIS: by developing students' empathy and respect for different cultures, opinions and perspectives; building an understanding of themselves and others to be engaged citizens both locally and globally.



Section One: Academic Pathways

As an International Baccalaureate Continuum School (PYP, MYP, and DP), our aim 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. We believe the attributes of the IB learner profile and others like them, can help individuals and groups become responsible members of local, national and global communities (Diploma Program: From principles into practice, August 2015).

All learning is grounded in the VIS core and learning principles as well as the IB philosophy, and we seek to provide a meaningful and challenging education to all of our learners. We aim to nurture knowledgeable, inquiring, caring and compassionate learners who demonstrate intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints.

As such, there are three pathways to graduation at VIS:

High School Diploma: Students complete the required subject credits for the high school diploma by enrolling in courses at the High School (HS) level.

High School Diploma + IB Courses: In addition to completing some HS courses, students select specific DP subjects to complete at Higher Level (HL) or Standard Level (SL). Upon completion, students will receive an IB Course Certificate for those subjects.

High School Diploma + IB Diploma: Students complete six DP subjects (3 HL, 3 SL), and complete the Core components: Theory of Knowledge, Extended Essay, and Creativity, Activity, and Service.

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- **High School Diploma + Bilingual IB Diploma:** In addition to completing the above mentioned requirements, students complete two Language A courses.

Subject Levels

In grades 11 and 12, subjects can be undertaken at High School (HS), Standard Level (SL), or Higher Level (HL). The Diploma Programme Coordinator, in conjunction with the University Guidance Counselor, advises students and families on the pathway that is most suitable based on their academic progress and post-secondary goals. Our aim is to ensure all pathways are meaningful and challenging to students and aligned to their goals.

Many classes begin with core content, skills and concepts but as the course progresses, HL subjects explore content, skills and concepts in more depth and detail or additional content, skills and concepts. HL classes often consist of an additional or longer examination paper in the final May exams, an additional expectation in the internal assessment work, and/or an additional external assessment.

Once the school year has begun, students who would like to change from one course to another must communicate with the DP Coordinator and the secondary counselor within the first 4 weeks of the course. The coordinator and/or counselor will work with each request with the student and family.

Subject Choices for the VIS Class of 2024 & 2025

Group 1: Studies in Language and Literature

1. English Language and Literature (HL, SL, HS)
2. Lao Literature (HL, SL, HS)
3. School-Supported Self-taught Literature (SL only)

Group 2 Language Acquisition

1. English B (HL, SL, HS)
2. French B (HL, SL, HS)
3. French ab initio (SL or HS)

Group 3 Individuals and Societies

1. Economics (HL, SL, HS)
2. Geography (HL, SL, HS)
3. Global Politics (HL, SL, HS)
4. History (HL, SL, HS)

Group 4 Sciences

1. Biology (HL, SL, HS)
2. Chemistry (HL, SL, HS)
3. Physics (HL, SL, HS)

Group 5 Mathematics

1. Mathematics: analysis and approaches (HL, SL, HS)
2. Mathematics: applications and interpretation (SL, HS)

Group 6 The Arts

1. Music (HL, SL, HS)
2. Visual Arts (HL, SL, HS)

Requirements for the High School Diploma

All students are required to accumulate at least 23 credits by the end of grade 12, and credit completion begins in grade 9. Students who complete the required subject credits will receive a high school diploma accredited by the Council of International Schools (CIS) and the Western Association of Schools and Colleges (WASC).

Subject Minimum Credits Needed

- English (Language and Literature and/or Language Acquisition) 4
- Language Acquisition or a second Language and Literature 3
- Individuals and Societies 3
- Sciences 3
- Mathematics 3
- Arts 2
- Design 2
- Physical and Health Education 2
- Theory of Knowledge or an additional subject 1

** Students are also required to complete Creativity, Activity, and Service in addition to the above credits.*



Pathway 1 - High School Courses

Some students may decide to pursue all subjects at High School level rather than at DP level. Some High School level subjects are differentiated DP subjects, which include flexibility in the structure and approach to assessments, the application of assessment criteria, and grade boundaries. We also have subjects that are pure High School classes, so the curriculum, assessment and criteria are tailored for our students and local context within the IB framework.

To offer a more diverse range of high school classes, we also partner with Global Online Academy, which offers over 200 online courses. Students studying these can earn credit towards their High School Diploma, and courses suit a wide range of interests from Bio Ethics to Gender Studies.

The core elements of TOK or the Core Project and CAS must also still be completed. TOK is completed on a Pass/Fail basis, with the same level of differentiation and flexibility.

Pathway 2 - Blended DP & HS Courses

Some students may decide to pursue DP Courses in combination with their HS courses. If this pathway is pursued, students will still take DP classes and complete the full assessment suite of the DP course. They will receive an official certificate of results from the IB certifying the grades they earned in those subjects. This allows students to select where they would like to add more rigor to their program of learning.

Students on this pathway can still choose to complete the Extended Essay and Theory of Knowledge as DP courses. Or, they can opt out of the EE, take TOK for a Pass/Fail high school credit, or complete the Core Project instead of TOK.

Pathway 3 - The IB Diploma

The Diploma Programme is a rigorous and academically challenging program designed to prepare students aged 16 – 19 for success at university and life beyond.

The IB Diploma requires students to enroll in courses from certain subjects, engage in additional service and academic work, and achieve specific point totals.

To be eligible for the full IB Diploma, students must choose at least one subject from each of the following groups;

1. **Group 1:** Language and Literature,
2. **Group 2:** Language Acquisition (or a second Language and Literature)
3. **Group 3:** Individuals and Societies
4. **Group 4:** The Sciences
5. **Group 5:** Mathematics.

Students must choose a sixth subject, which can be from Group 6: The Arts or an additional subject from one of the groups above.

Of these subject selections, three (and not more than four) subjects must be taken at higher level, while the remaining are taken at standard level.

Students must also complete the Core elements of the program:

1. The Extended Essay (EE)
2. Theory of Knowledge (TOK)
3. Creativity, Activity, Service (CAS)

After the completion of the course and the final exams, final grades are awarded externally by the IB based on all the assessment components. Each of the 6 main subjects is graded on a scale from 1 – 7. The Extended Essay and Theory of Knowledge are graded from A to E, and between them, students can

earn up to 3 additional points. Creativity, Activity and Service is graded on a pass or fail basis. This makes a final possible total of 45 points.

In order to be awarded the IB Diploma, students must:

- achieve 12 or more points in their HL subjects
- achieve 9 or more points in their SL subjects
- have no subject with a grade 1
- achieve a minimum D grade for Extended Essay and Theory of Knowledge
- complete CAS satisfactorily

The International Baccalaureate publishes results on July 6 after the final May exams. Students have access directly to these at <https://candidates.ibo.org>. Students can request for these to be forwarded to universities and colleges of their choice. Original copies of the IB Diploma, and documentation of results are sent to VIS in early September and will be available for collection from the VIS Secondary office.

** Please note, fees for the Diploma Programme are paid for by families.*



Section Two: Course Overviews

Studies In Language & Literature

English Language & Literature

Course Overview

In this course, students study a wide range of literary and non-literary texts in a variety of media. By examining communicative acts across literary form and textual type alongside appropriate secondary readings, students will investigate the nature of language itself and the ways in which it shapes and is influenced by identity and culture. Approaches to study in the course are meant to be wide ranging and can include literary theory, sociolinguistics, media studies and critical discourse analysis among others.

Aims

- Engage with a range of texts, in a variety of media and forms, from different periods, styles, and cultures
- Develop skills in listening, speaking, reading, writing, viewing, presenting and performing
- Develop skills in interpretation, analysis and evaluation
- Develop sensitivity to the formal and aesthetic qualities of texts and an appreciation of how they contribute to diverse responses and open up multiple meanings
- Develop an understanding of relationships between texts and a variety of perspectives, cultural contexts, and local and global issues and an appreciation of how they contribute to diverse responses and open up multiple meanings

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- Develop an understanding of the relationships between studies in language and literature and other disciplines
 - Communicate and collaborate in a confident and creative way
 - Foster a lifelong interest in and enjoyment of language and literature.

External Assessment

Paper 1: Guided textual analysis

The paper consists of two non-literary passages, from two different text types, each accompanied by a question. Students write an analysis of each of the passages. (40 marks HL) (20 marks SL)

Paper 2: Comparative essay

The paper consists of four general questions. In response to one question, students write a comparative essay based on two literary works studied in the course. (30 marks SL & HL)

HL Essay

Students submit an essay on one non-literary body of work, or a literary work studied during the course. The essay must be 1,200–1,500 words in length. (20 marks HL only)

Internal assessment (IA)

Individual Oral

Supported by an extract from both one non-literary body of work and one from a literary work, students will offer a prepared response of 10 minutes, followed by 5 minutes of questions by the teacher, to the following prompt:

Examine the ways in which the global issue of your choice is presented through the content and form of one of the works and one of the bodies of work that you have studied. (40 marks)

Lao Literature

School-Supported Self-Taught Literature

Course Overview

The language A: literature aims at exploring the various manifestations of literature as a particularly powerful mode of writing across cultures and throughout history. The course aims at developing an understanding of factors that contribute to the production and reception of literature—the creativity of writers and readers, the nature of their interaction with their respective contexts and with literary tradition, the ways in which language can give rise to meaning and/or effect, and the performative and transformative potential of literary creation and response. Through close analysis of a range of literary texts in a number of literary forms and from different times and places, students will consider their own interpretations as well as the critical perspectives of others, to explore how such positions are shaped by cultural belief systems and to negotiate meanings for texts.

For students whose mother tongue is not English or Lao, VIS makes every effort to support students in a School-Supported Self-Taught Language A course. This approach allows a student to engage in some independent study of literature in their mother tongue with the support of a tutor. This course can only be taken at the Standard Level.

Aims

- Engage with a range of texts, in a variety of media and forms, from different periods, styles, and cultures

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- Develop skills in listening, speaking, reading, writing, viewing, presenting and performing
 - Develop skills in interpretation, analysis and evaluation
 - Develop sensitivity to the formal and aesthetic qualities of texts and an appreciation of how they contribute to diverse responses and open up multiple meanings
 - Develop an understanding of relationships between texts and a variety of perspectives, cultural contexts, and local and global issues and an appreciation of how they contribute to diverse responses and open up multiple meanings
 - Develop an understanding of the relationships between studies in language and literature and other disciplines Communicate and collaborate in a confident and creative way
 - Foster a lifelong interest in and enjoyment of language and literature.

External Assessment

Paper 1: Guided Literary Analysis

The exam paper will consist of two extracts or texts from different literary forms, each accompanied by a guiding question. Students will have to choose one of them and develop a response that demonstrates an awareness of how meaning is created. (20 marks)

Paper 2: Comparative Essay

Students write an essay in response to a given question concerning a comparative critical discussion of two works studied during the course. Students choose to complete one of four possible questions. (30 marks)

HL Essay

Students submit an essay on a literary work studied during the course. The essay must be 1,200–1,500 words in length. (20 marks HL only)

Internal Assessment

Individual Oral

Supported by an extract from one work written originally in the language studied and one from a work studied in translation, students will offer a prepared response to the following prompt:

“Examine the ways in which the global issue of your choice is presented through the content and form of two of the works that you have studied.” (40 marks)

Language Acquisition

ENGLISH B OR FRENCH B

Course Overview

Language B is a language acquisition course designed for students with some previous experience of the target language. Students further develop their ability to communicate through the study of language, themes and texts. There are five prescribed themes: identities, experiences, human ingenuity, social organization and sharing the planet.

Both language B SL and HL students learn to communicate in the target language in familiar and unfamiliar contexts. The distinction between language B SL and HL can be seen in the level of competency the student is expected to develop in receptive, productive and interactive skills. As English is the language of instruction at VIS the expectations and English B curriculum

have been designed accordingly, challenging students to develop their language skills to the best of their abilities.

Aims

- Develop international-mindedness through the study of languages, cultures, and ideas and issues of global significance.
- Enable students to communicate in the language they have studied in a range of contexts and for a variety of purposes.
- Encourage, through the study of texts and through social interaction, an awareness and appreciation of a variety of perspectives of people from diverse cultures.
- Develop students' understanding of the relationship between the languages and cultures with which they are familiar.
- Develop students' awareness of the importance of language in relation to other areas of knowledge.
- Provide students, through language learning and the process of inquiry, with opportunities for intellectual engagement and the development of critical- and creative-thinking skills.
- Provide students with a basis for further study, work and leisure through the use of an additional language.
- Foster curiosity, creativity and a lifelong enjoyment of language learning.

External Assessment

Paper 1 (productive skills)

One writing task from a choice of three (25%)

Paper 2 (1 hour 45 minutes)

Receptive skills – separate sections for listening and reading (65 marks)

Listening Comprehension (45 Minutes) (25 Marks)

Reading Comprehension (1 Hour) (40 Marks)

Comprehension exercises on three audio passages and three written texts, drawn from all five themes.

Internal Assessment

This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.

Individual Oral Assessment

Students orally react to a stimulus (visual for SL, literary extract for HL), respond to questions and engage in a general conversation. 30 marks (25%)

French Ab. Initio

Course Overview

The IB DP language ab initio course is designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken. This process encourages the learner to go beyond the confines of the classroom, expanding an awareness of the world and fostering respect for cultural diversity. The language ab initio course develops students' linguistic abilities through the development of receptive, productive and interactive skills by providing them opportunities to respond and interact appropriately in a defined range of everyday situations. Language ab initio is available at standard level only.

Aims

- Develop international-mindedness through the study of languages, cultures, and ideas and issues of global significance.
- Enable students to communicate in the language they have studied in a range of contexts and for a variety of purposes. Encourage, through the study of texts and through social interaction, an awareness and appreciation of a variety of perspectives of people from diverse cultures. Develop students' understanding of the relationship between the languages and cultures with which they are familiar.
- Develop students' awareness of the importance of language in relation to other areas of knowledge.
- Provide students, through language learning and the process of inquiry, with opportunities for intellectual engagement and the development of critical and creative thinking skills. Provide students with a basis for further study, work and leisure through the use of an additional language.
- Foster curiosity, creativity and a lifelong enjoyment of language learning.

External assessment (2 hours 45 minutes)

Paper 1 (1 hour)

Productive Skills – Writing (30 Marks). Two written tasks of 70 –150 words each from a choice of three tasks, choosing a text type for each task from among those listed in the examination instructions.

Paper 2 (1 hour 45 minutes)

Receptive skills – separate sections for listening and reading (65 marks)

Listening Comprehension (45 Minutes) (25 Marks)

Reading Comprehension (1 Hour) (40 Marks)

Comprehension exercises on three audio passages and three written texts, drawn from all five themes.

Internal Assessment

This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.

Individual Oral Assessment

A conversation with the teacher, based on a visual stimulus and at least one additional course theme. (30 marks).

Individuals & Societies

Economics

Course Overview

Economics is an exciting, dynamic subject that allows students to develop an understanding of the complexities and interdependence of economic activities in a rapidly changing world. At the heart of economic theory is the problem of scarcity. Owing to scarcity, choices have to be made. The economics course, at both SL and HL, uses economic theories, models and key concepts to examine the ways in which these choices are made: at the level of producers and consumers in individual markets (microeconomics); at the level of the government and the national economy (macroeconomics); and at an international level, where countries are becoming increasingly interdependent (the global economy). The DP economics course allows students to explore these models, theories and key concepts, and apply them, using empirical data, through the examination of six real-world issues. Through their own inquiry, students will be able to appreciate both the values and

limitations of economic models in explaining real-world economic behaviors and outcomes. By focusing on the six real-world issues through the nine key concepts (scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence and intervention), students of the economics course will develop the knowledge, skills, values and attitudes that will encourage them to act responsibly as global citizens.

Aims

- Develop a critical understanding of a range of economic theories, models, ideas and tools in the areas of microeconomics, macroeconomics and the global economy.
- Apply economic theories, models, ideas and tools, and analyze economic data to understand and engage with real-world economic issues and problems facing individuals and societies.
- Develop a conceptual understanding of individuals and societies, economic choices, interactions, challenges and consequences of economic decision-making.

External Assessment

Paper 1 (extended response paper)

Students answer one question from a choice of three. The questions are each subdivided into two parts, (a) and (b). (20%)

Paper 2 (Data response paper)

Students answer one question from a choice of two. The questions are each subdivided into seven parts. (30%)

Paper 3 (Policy paper)

Students answer two compulsory questions. The questions are subdivided into parts (a) and (b). (30%)

Internal Assessment

Portfolio

Three commentaries based on different units of the syllabus (except the introductory unit) and from published extracts from the news media, analyzed using different key concepts. (20%)

Global Politics

Course Overview

The Global Politics course explores fundamental political concepts such as power, equality, sustainability and peace in a range of contexts. It allows students to develop an understanding of the local, national, international and global dimensions of political activity and processes, as well as to explore political issues affecting their own lives. The course helps students to understand abstract political concepts by grounding them in real-world examples and case studies. It also invites comparisons between such examples and case studies to ensure a wider and transnational perspective.

The study of global politics enables students to critically engage with different and new perspectives and approaches to politics in order to comprehend the challenges of the changing world and become aware of their role in it as active global citizens.

Aims:

- understand key political concepts and contemporary political issues in a range of contexts

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- develop an understanding of the local, national, international and global dimensions of political activity
 - understand, appreciate and critically engage with a variety of perspectives and approaches in global politics
 - appreciate the complex and interconnected nature of many political issues, and develop the capacity to interpret competing and contestable claims regarding those issues.

External Assessment

Paper One

A stimulus-based paper on a topic from one of the four core units (Power, sovereignty and international relations, Human rights, Development, Peace and conflict).

Paper Two

A conceptual extended response based on the four core units.

Internal Assessment

Engagement Activity:

An engagement on a political issue of personal interest, complemented with research, which culminates in a written report (2,000-word maximum).

HL Extension:

Political issues in two of the following six global political challenges are researched and presented through a case study approach: Environment, Poverty, Health, Identity, Borders, and Security. Students present their work as video-recorded oral presentations (10 minutes maximum each).

The Sciences

Biology

Course Overview

As one of the three natural sciences in the IB Diploma Programme, biology is primarily concerned with the study of life and living systems. Biologists attempt to make sense of the world through a variety of approaches and techniques, controlled experimentation and collaboration between scientists. At a time of global introspection on human activities and their impact on the world around us, developing and communicating a clear understanding of the living world has never been of greater importance than it is today.

Through the study of DP biology, students are empowered to make sense of living systems through unifying themes. By providing opportunities for students to explore conceptual frameworks, they are better able to develop understanding and awareness of the living world around them. This is carried further through a study of interactions at different levels of biological organization, from molecules and cells to ecosystems and the biosphere. Integral to the student experience of the DP biology course is the learning that takes place through scientific inquiry. With an emphasis on experimental work, teachers provide students with opportunities to ask questions, design experiments, collect and analyze data, collaborate with peers, and reflect, evaluate and communicate their findings.

DP biology enables students to constructively engage with topical scientific issues. Students examine scientific knowledge claims in a real-world context, fostering interest and curiosity. By exploring the subject, they develop understandings, skills and techniques which can be applied across their studies and beyond.

Through the overarching theme of the nature of science, the course aims to enable students to:

1. develop conceptual understanding that allows connections to be made between different areas of the subject, and to other DP sciences subjects
2. acquire and apply a body of knowledge, methods, tools and techniques that characterize science
3. develop the ability to analyze, evaluate and synthesize scientific information and claims
4. develop the ability to approach unfamiliar situations with creativity and resilience
5. design and model solutions to local and global problems in a scientific context
6. develop an appreciation of the possibilities and limitations of science
7. develop technology skills in a scientific context
8. develop the ability to communicate and collaborate effectively
9. develop awareness of the ethical, environmental, economic, cultural and social impact of science.

Curriculum Model Overview

The DP biology course promotes concept-based teaching and learning to foster critical thinking.

The DP biology course is built on:

- approaches to learning
- nature of science
- skills in the study of biology.

These three pillars support a broad and balanced experimental programme. As students progress through the course, they become familiar with traditional experimentation techniques, as well as the application of technology. These opportunities help them to develop their investigative skills and evaluate the impact of error and uncertainty in scientific inquiry. The scientific investigation then places a specific emphasis on inquiry-based skills and the formal communication of scientific knowledge. Finally, the collaborative sciences project extends the development of scientific communication in a collaborative and interdisciplinary context, allowing students to work together beyond the confines of biology.

External Assessment

Both HL and SL students will sit two examination papers at the end of the two year course. The exam papers account for a total of 80% of the final grade awarded to the student. The exam has a mixture of multiple choice questions and longer, more analytical response questions.

Internal Assessment

The internal assessment accounts for 20% of the students' final grade. The scientific investigation is an open ended task in which the student gathers and analyses data in order to answer their own formulated research question. The outcome of the scientific investigation will be assessed through the form of a written report. The maximum overall word count for the report is 3,000 words.

Chemistry

Course Overview

As one of the three natural sciences in the IB Diploma Programme, chemistry is primarily concerned with identifying patterns that help to explain matter at the microscopic level. This then allows matter's behavior to be predicted and

controlled at a macroscopic level. The subject therefore emphasizes the development of representative models and explanatory theories, both of which rely heavily on creative but rational thinking.

DP chemistry enables students to constructively engage with topical scientific issues. Students examine scientific knowledge claims in a real-world context, fostering interest and curiosity. By exploring the subject, they develop understandings, skills and techniques which can be applied across their studies and beyond.

Integral to the student experience of the DP chemistry course is the learning that takes place through scientific inquiry both in the classroom and the laboratory.

Through the overarching theme of the nature of science, the course aims to enable students to:

1. develop conceptual understanding that allows connections to be made between different areas of the subject, and to other DP sciences subjects
2. acquire and apply a body of knowledge, methods, tools and techniques that characterize science
3. develop the ability to analyze, evaluate and synthesize scientific information and claims
4. develop the ability to approach unfamiliar situations with creativity and resilience
5. design and model solutions to local and global problems in a scientific context
6. develop an appreciation of the possibilities and limitations of science

7. develop technology skills in a scientific context
8. develop the ability to communicate and collaborate effectively
9. develop awareness of the ethical, environmental, economic, cultural and social impact of science.

Curriculum Model Overview

The DP chemistry course promotes concept-based teaching and learning to foster critical thinking.

The DP chemistry course is built on:

- approaches to learning
- nature of science
- skills in the study of chemistry.

These three pillars support a broad and balanced experimental programme. As students progress through the course, they become familiar with traditional experimentation techniques, as well as the application of technology. These opportunities help them to develop their investigative skills and evaluate the impact of error and uncertainty in scientific inquiry. The scientific investigation then places a specific emphasis on inquiry-based skills and the formal communication of scientific knowledge. Finally, the collaborative sciences project extends the development of scientific communication in a collaborative and interdisciplinary context, allowing students to work together beyond the confines of chemistry.

External Assessment

Both HL and SL students will sit two separate examination papers at the end of the two-year course. The exam papers account for a total of 80% of the final grade awarded to the student. The exam has a mixture of multiple-choice questions and longer, more analytical response questions.

Internal Assessment

The internal assessment accounts for 20% of the students' final IB grade. The scientific investigation is an open ended task in which the student gathers and analyzes data in order to answer their own formulated research question. The outcome of the scientific investigation will be assessed through the form of a written report. The maximum overall word count for the report is 3,000 words.

Physics

Course Overview

As one of the three natural sciences in the IB Diploma Programme, physics is concerned with an attempt to understand the natural world; from determining the nature of the atom to finding patterns in the structure of the universe. It is the search for answers from how the universe exploded into life to the nature of time itself. Observations are essential to the very core of the subject. Models are developed to try to understand observations, and these themselves can become theories that attempt to explain the observations. Besides leading to a better understanding of the natural world, physics gives us the ability to alter our environments. DP physics enables students to constructively engage with topical scientific issues. Students examine scientific knowledge claims in a real-world context, fostering interest and curiosity. By exploring the subject, they develop understandings, skills and techniques which can be applied across their studies and beyond. Integral to the student experience of the DP physics course is the learning that takes place through scientific inquiry both in the classroom and the laboratory.

Through the overarching theme of the nature of science, the course aims to enable students to:

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1. develop conceptual understanding that allows connections to be made between different areas of the subject, and to other DP sciences subjects
 2. acquire and apply a body of knowledge, methods, tools and techniques that characterize science
 3. develop the ability to analyze, evaluate and synthesize scientific information and claims
 4. develop the ability to approach unfamiliar situations with creativity and resilience
 5. design and model solutions to local and global problems in a scientific context
 6. develop an appreciation of the possibilities and limitations of science
 7. develop technology skills in a scientific context
 8. develop the ability to communicate and collaborate effectively
 9. develop awareness of the ethical, environmental, economic, cultural and social impact of science.

Curriculum Model Overview

The DP physics course promotes concept-based teaching and learning to foster critical thinking.

The DP physics course is built on:

- approaches to learning
- nature of science
- skills in the study of physics.

These three pillars support a broad and balanced experimental programme. As students progress through the course, they become familiar with traditional experimentation techniques, as well as the application of technology. These opportunities help them to develop their investigative skills and evaluate the impact of error and uncertainty in scientific inquiry. The scientific investigation then places a specific emphasis on inquiry-based skills and the formal communication of scientific knowledge. Finally, the collaborative sciences project extends the development of scientific communication in a collaborative and interdisciplinary context, allowing students to work together beyond the confines of physics.

External Assessment

Both HL and SL students will sit two separate examination papers at the end of the two year course. The exam papers account for a total of 80% of the final grade awarded to the student. The exam has a mixture of multiple choice questions and longer, more analytical response questions.

Internal Assessment

The internal assessment accounts for 20% of the students' final IB grade. The scientific investigation is an open ended task in which the student gathers and analyzes data in order to answer their own formulated research question. The outcome of the scientific investigation will be assessed through the form of a written report. The maximum overall word count for the report is 3,000 words.

Mathematics

Mathematics: Analysis & Approaches

Course Overview

This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of

mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series at both SL and HL, and proof by induction at HL. The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: analysis and approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments and is recommended for students interested in mathematics, engineering, physical sciences, and some economics.

Aims

- Develop a curiosity and enjoyment of mathematics, and appreciate its elegance and power
- Develop an understanding of the concepts, principles and nature of mathematics
- Communicate mathematics clearly, concisely and confidently in a variety of contexts
- Develop logical and creative thinking, and patience and persistence in problem solving to instill confidence in using mathematics
- Employ and refine their powers of abstraction and generalization
- Take action to apply and transfer skills to alternative situations, to other areas of knowledge and to future developments in their local and global communities
- Appreciate how developments in technology and mathematics influence each other

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- Appreciate the moral, social and ethical questions arising from the work of mathematicians and the applications of mathematics
 - Appreciate the universality of mathematics and its multicultural, international and historical perspectives
 - Appreciate the contribution of mathematics to other disciplines, and as a particular “area of knowledge” in the TOK course
 - Develop the ability to reflect critically upon their own work and the work of others
 - Independently and collaboratively extend their understanding of mathematics.

External Assessment

Paper 1: No Technology Allowed

Section A: Compulsory short-response questions based on the syllabus.

Section B: Compulsory extended-response questions based on the syllabus.

Paper 2: Technology Required

Section A: Compulsory short-response questions based on the syllabus.

Section B: Compulsory extended-response questions based on the syllabus.

Paper 3: HL Only

Two compulsory extended response problem-solving questions.

Internal Assessment

Mathematical Exploration

Internal assessment in mathematics is an individual exploration. This is a piece of written work that involves investigating an area of mathematics.

Mathematics: Applications & Interpretation

Course Overview

This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modeling. To give this understanding a firm base, this course also includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics. The course makes extensive use of technology to allow students to explore and construct mathematical models. Mathematics: applications and interpretation will develop mathematical thinking, often in the context of a practical problem and using technology to justify conjectures. This course is offered as a Standard Level course only.

Aims

- Develop a curiosity and enjoyment of mathematics, and appreciate its elegance and power. Develop an understanding of the concepts, principles and nature of mathematics
- Communicate mathematics clearly, concisely and confidently in a variety of contexts
- Develop logical and creative thinking, and patience and persistence in problem solving to instill confidence in using mathematics
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- Appreciate the universality of mathematics and its multicultural, international and historical perspectives
 - Appreciate the contribution of mathematics to other disciplines, and as a particular “area of knowledge” in the TOK course
 - Develop the ability to reflect critically upon their own work and the work of others
 - Independently and collaboratively extend their understanding of mathematics.

Internal Assessment

Mathematical Exploration

Internal assessment in mathematics is an individual exploration. This is a piece of written work that involves investigating an area of mathematics.

External Assessment (80%)

Paper 1: Technology Required

Compulsory short-response questions based on the syllabus.

Paper 2: Technology Required

Compulsory extended-response questions based on the syllabus.

The Arts

Music

Course Overview

In Music students are encouraged to engage with music that is familiar and unfamiliar to them, from a range of times, places and cultures. During their study of the various parts of the course students will be supported into developing their understanding of music as a whole. Students will need substantially more guidance on the content of the course during the early

stages. However, throughout the teaching of the course they will be encouraged to develop critical thinking and participate in inquiry-based learning. Students should work both individually and collaboratively, working towards informed engagement.

Aims

The aim of the music course at SL and HL is to enable students to develop their knowledge and potential as musicians, both personally and collaboratively. A varied range of activities will be introduced to encourage students to engage with music from different times, places and cultures, critically appraise music and use appropriate musical terminology, develop techniques for comparative analysis, develop investigative and thinking skills, learn to create music, learn to perform music, work both independently and collaboratively and develop reflection techniques for monitoring their work over time.

Assessment

Exploring Music in Context

Students select samples of their work for a portfolio submission (maximum 2,400 words).

Experimenting with Music

Students submit an experimentation report with evidence of their musical processes in creating and performing focused through at least two areas of inquiry in a local and/or global context. The report provides a rationale and commentary for each process.

Presenting Music

Students submit a collection of works demonstrating engagement with diverse musical material from four areas of inquiry.

The Contemporary Music-Maker (HL only)

Students submit a continuous multimedia presentation documenting their real-life project.

Visual Arts

Course Overview

The visual arts course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.

Aims

Enable students to:

- Develop perceptual and analytical skills make artwork that is influenced by personal and cultural contexts.
- Become informed and critical observers and makers of visual culture and media.
- Develop skills, techniques and processes in order to communicate concepts and ideas.

External Assessment (SL)

Comparative Study

10-15 screens – 20%

Process Portfolio

9-18 screens- 40%

External Assessment (HL)

Comparative Study

10 to 15 screens- 20%

3-5 screens analytical connection to personal studio work.

Process Portfolio

13-25 screens including three different mediums.-40%

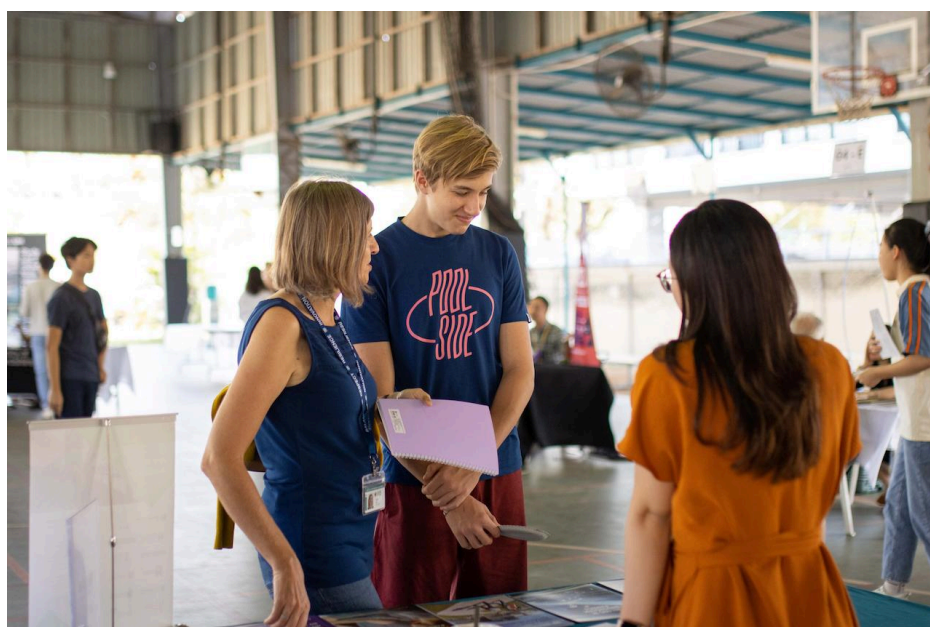
Internal Assessment (SL)

Exhibition

Artist rationale, 4-7 art works and exhibition text- 40%

Internal Assessment (HL)

Exhibition Artist rationale, 8-11 art works and exhibition text- 40%



Online Opportunities

Online Opportunities

Overview

Students at VIS also have the opportunity to select from a range of other DP subject choices also offered through Pamoja Education.

Pamoja education works in close cooperation with the International Baccalaureate. For further details relating to Pamoja online learning please visit www.pamojaeducation.com or drop in and chat to the DP Coordinator at VIS. Some of the courses offered by Pamoja are:

Group 2: Language Acquisition

- Mandarin – Language B or ab initio
- Spanish – Language B or Language ab initio

Group 3: Individuals and Societies

- Business Management
- Information technology in a global society
- Philosophy
- Psychology

The Core Elements

Creativity, Activity And Service (CAS)

Overview

CAS stands for three specific areas of personal development; Creativity, (physical) Activity and Service. CAS requires participating students to spend a fairly significant amount of time engaging with each of the three areas over an eighteen month period. Participation and completion of all the CAS requirements is a prerequisite for completion of both the International Baccalaureate Diploma and the VIS Diploma. The CAS Program is essentially experiential learning designed to provide real, challenging, achievable experiences for students to engage in thoughtful planning, reporting and reflection.

CAS Experiences should be appropriately adapted to the students' circumstances, and take into account personal aptitudes and preferences. The experiences should reward and enrich all stakeholders involved (when applicable). When students are highly engaged in the CAS Program, they build self-esteem, self-confidence, and collaborative skills.

Learning Outcomes

Judgment on successful completion in CAS is achieved by the student supplying evidence of:

- Identifying own strengths and develop areas for growth
- Demonstrating that challenges have been undertaken, developing new skills in the process
- Demonstrating how to initiate and plan a CAS experience
- Showing commitment and perseverance in CAS experiences
- Demonstrating recognizing the benefits of working collaboratively
- Demonstrating engagement with issues of global significance

-
- Recognizing and considering the ethics of choices and actions

This focus on learning outcomes emphasizes that it is the quality of a CAS Experience that is of most importance. There is no set amount of hours to determine a student's completion of a learning outcome, nor is there a set number of CAS Experiences required to complete the program. However, students must be able to demonstrate that each learning outcome has been achieved at a level that suits individual aptitudes and circumstances. Likewise, students must be able to demonstrate that they can achieve an equitable balance of experiences between the three areas of Creativity, (physical) Activity, and Service.

Monitoring Progress

CAS Coordinator

Each student will record their activities and projects for approval, keep track of progress, and complete evaluations and submit the finished work for final approval. The CAS coordinator has access to all students' accounts whereby they can monitor progress and achievement toward learning outcomes. The CAS coordinator also provides opportunities for student achievement through both the VIS Activities Program as well through connections with the wider community.

CAS Adviser

Each student is assigned a CAS adviser. The CAS adviser at VIS is their Sabaidee mentor. The adviser assists each student in the successful completion of their CAS commitments through monitoring progress and ensuring quality of activities and journal entries. Through regular meetings students can be encouraged to maintain steady progress toward their eventual goal.

CAS and Graduation

Completing CAS is a graduation requirement for all students. In order to be awarded their VIS Diploma, students must meet all learning outcomes by the end of Grade 12.

Extended Essay

Course Overview

The Extended Essay is an independent research project that enables students to deeply explore a topic of their choice within a selected subject. It provides skills in independent research, critical thinking, and academic writing.

Through the EE, students gain in-depth knowledge of their chosen subject, develop the ability to formulate and investigate research questions, and experience the full cycle of conducting and presenting independent research.

Process

The Extended Essay process begins in September of the 11th grade and ends in August of the 12th grade. The Extended Essay is student-directed. While students do have sessions with the EE coordinator throughout the process, there is no work time provided during the school day. All work on the EE happens outside of class time. Students are encouraged to devote regular time to their Extended Essay throughout this period to ensure the essay is completed by the due date.

Students choose the subject they will do their Extended Essay in, and with the guidance of their Supervisor and the EE Coordinator, create their research question. Students are strongly encouraged to choose a topic that is of genuine interest to them and is of a scope that is not too wide or too narrow to research.

Monitoring Progress

The EE Coordinator will support all students through the process by providing check points and support sessions with academic honesty and research skills. The EE Coordinator has access to all students' essays whereby he/she can monitor progress.

Each student is assigned an EE supervisor that is a teacher at the school. The supervisor assists each student in the successful completion of their EE through monitoring their progress and ensuring quality of research, writing and academic honesty.

Assessment

The Extended essay is compulsory for IB Diploma candidates. Students are given a predicted grade by their supervisor based on the assessment criteria. However, the essays are sent to IB examiners to be externally assessed for their official grade.

Students must achieve at least a D in order to receive the IB Diploma.

Theory Of Knowledge

Course Overview

The TOK course encourages critical thinking about knowledge itself, to try to help young people make sense of what they encounter. Students will develop an awareness of how knowledge is constructed, critically examined, evaluated and renewed. They will be encouraged to reflect on their experiences as learners and to make connections between academic disciplines and between thoughts, feelings and actions. They will be asked to examine their own personal, ideological and cultural assumptions. The ethical responsibilities associated with knowledge will be considered and students will be

encouraged to recognize the need to act responsibly in an increasingly interconnected world.

Aim

The TOK program is composed of questions, the most central of these questions are:

- How do we acquire knowledge?
- How do we use that knowledge?
- How can we be certain that what we know is true?

Through the critical examination of knowledge students will develop an appreciation for the quest for knowledge, in particular its importance, its complexities, and its human implications. TOK encourages students to gain and apply their own knowledge with greater awareness and responsibility.

Assessment

The assessment model in TOK comprises two components:

The Essay

Students respond to one of six prescribed titles, (1600 words).

The Exhibition

Students will create an exhibition of three objects that show how TOK manifests in the real world.

Students must achieve at least a D in order to receive the IB Diploma.



Section Three:

Contact Us

QUESTIONS?

If you have any questions or information requests, please do not hesitate to contact the DP Coordinator or Secondary School Principal.

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