



St Leonard's College
An education for life.

IBDP Course Guide

2024



Contents

Foreword	3
Introduction	4
Group 1 Studies in Language and Literature	
Chinese	8
English	9
Group 2 Language Acquisition	
Chinese B	11
English B	12
French B	13
Spanish B	15
Spanish Ab Initio	16
Group 3 Individuals and Societies	
Business Management	17
Economics	18
Geography	19
History	21
Psychology	23
Group 4 Experimental Sciences	25
Biology	27
Chemistry	29
Computer Science	29
Environmental Systems and Societies	31
Physics	33
Sport, Exercise and Health Science	34
Group 5 Mathematics	
Mathematics: Analysis and Approaches SL and HL	36
Group 6 The Arts	
Film	38
Music	39
Theatre	41
Visual Arts	43
IBDP Course Guide Contacts	45

Front cover
Xavier Hall, Year 12, 2022
Xylem
IBDP Visual Arts
Cardboard, perspex, balsa wood, gum leaves, fibreboard

Foreword

This booklet is designed to provide specific information on the studies available in the International Baccalaureate Diploma Programme at year 11 in 2024 and year 12 in 2025.

It helps to provide a reference in the process where students make choices for their final two years of secondary education, laying a foundation for future work or study.

Each of the IBDP subjects offered at St Leonard's College is described in this booklet, including mention of any prerequisites, a description of the subject, some advice on assessment, and examples of some of the possible career options that the subject might support.

Please note that a subject will only run provided that a viable number of students choose it. In cases where a subject will not run due to insufficient numbers, families will be contacted so that an alternative can be selected.

It is important that students ensure that their choices satisfy any prerequisites for courses they may be interested in for future study.

If you have any queries please do not hesitate to contact me at the College.

Susanne Haake, **Director of Academic Development**
susanne.haake@stleonards.vic.edu.au

Craig Rodgers, **IBDP Coordinator**
craig.rodgers@stleonards.vic.edu.au

International Baccalaureate Diploma Programme

Background

The International Baccalaureate Diploma Programme is a two-year, internationally recognised pre-university course. International Baccalaureate Organization (IBO) is an international, non-government body that has responsibility for setting the curriculum utilised by all participating schools.

The IBO emphasises a global perspective. On a practical level, IB Diploma holders are accepted for entry into leading universities throughout the world and at all Australian universities. The course also enables students who are internationally mobile to transfer their studies from one IB World School to another. The IBDP is based on sound educational principles, offering students breadth and depth of study at an approachable level of challenge, and is excellent preparation for tertiary study.

In 1982 St Leonard's College became the first school in Victoria, and the second in Australia, to introduce the International Baccalaureate Diploma Programme.

Curriculum

The IBDP is a two-year course. The curriculum structure is based on a framework of subject choices from six designated groups together with three central compulsory core components: Theory of Knowledge, Extended Essay and CAS (Creativity, Activity, Service).

Subject choices

All of the subjects offered by the IBO for study by Diploma students at St Leonard's College are categorised into six groups:



Group 1	Studies in Language and Literature Language A - Chinese: Literature English: Language and Literature or Literature
Group 2	Language Acquisition Language B – Chinese, English, French, Spanish Language ab initio – Spanish
Group 3	Individuals and Societies Business Management, Economics, Geography, History, Psychology
Group 4	Experimental Sciences Biology, Computer Science, Chemistry, Environmental Systems and Societies, Physics, Sport Exercise and Health Science,
Group 5	Mathematics Analysis and Approaches SL and HL
Group 6	The Arts Film, Music, Theatre, Visual Arts

Students are required to study six subjects. One subject is chosen from each of Groups 1 to 5. The sixth subject may be chosen from Group 6, or another subject from groups 2, 3 or 4.

If a student chooses to study a subject via an external provider, the associated costs will be at the expense of the parents, and would need to be approved by the IBDP Coordinator.

All students elect 6 subjects of which 3 subjects are taken at Higher Level (HL) and 3 at Standard Level (SL). HL subjects include additional content studied in greater depth. HL subjects also have additional assessment components.

The three central core components

Theory of Knowledge (TOK)

TOK is a course about critical thinking, exploring and analysing the nature of knowledge and the process of knowing. The TOK course embraces the exploration of tensions, limitations and challenges relating to knowledge and knowing. TOK discussions encourage students to appreciate and be inspired by the richness of human knowledge and to consider the positive value of different kinds of knowledge. Consideration should be given to reflecting on knowledge and knowing, its potential to help us think more subtly, to be aware of our assumptions, and to promote intercultural understanding. Assessment includes a 1600 word essay and an Exhibition.

Creativity, Activity, Service (CAS)

CAS is at the heart of the Diploma Programme. It is designed to strengthen and extend students' personal and interpersonal learning through participation and reflection on creative pursuits, physical activities and service projects. Through CAS, students develop skills, attitudes and dispositions through a variety of individual and group experiences that provide students with opportunities to explore their interests

and express their passions, personalities and perspectives, responding to seven learning outcomes across two years. CAS complements a challenging academic programme providing opportunities for self-determination, collaboration, accomplishment and enjoyment. Many students include CAS activities in their tertiary applications and in CVs when applying for jobs to demonstrate, interests, leadership and learning.

Extended Essay

The Extended Essay is a 4000 word research essay which promotes academic research and writing skills. It provides students with an opportunity to engage in personal inquiry into a topic of their own choice, in one of their subjects. Each student is supervised by a teacher who advises on appropriate references, research methodology and essay writing. Emphasis is on quality of research analysis and argument, realising the research and academic writing skills desired by universities. Some students share Extended Essays for scholarship applications and interviews.

Assessment

IBDP assessment includes external examinations at the end of year 12 as well as internal assessments including oral examinations, essays, portfolios, field work, science practical reports. Students practise these assessments in year 11.

Teachers moderate all internal assessment. Grades are verified by external examiners. A number of St Leonard's College teachers are IB examiners and workshop leaders.

The Grading System

Each of the six subjects is awarded a grade from 1 (minimum) to 7 (maximum). In addition, up to three bonus points are awarded for the combination of Extended Essay and the Theory of Knowledge grades. The maximum IBDP score is 45. The IB diploma is awarded to candidates who achieve a minimum total of 24 points while satisfying conditions including the satisfactory completion of the Extended Essay, TOK and CAS. Students who do not meet the requirements are awarded a certificate of achievements. Students who do not meet the minimum requirements are ineligible for an ATAR.

All assessments are evaluated against a published criteria applied consistently around the world and from one examination session to the next. Students' results are not influenced by other student grades.

University accreditation

The IB diploma is recognised by all Australian and international universities. Students completing the IBDP in 2024 and tertiary study in 2025 in any Australian State or Territory (except South Australia and the Northern Territory) will receive a Combined Rank measure of overall achievement comparable with the Australian Tertiary Admissions Rank (ATAR). This means that a Combined Rank of 92.45 equals an ATAR of 92.45. This rank is based on the overall result in the IB Diploma, the students score out of 45.

Why choose the IBDP?

The International Baccalaureate offers:

- Breadth: the course structure dictates a selection of English, additional Language, Humanities, Science and Mathematics subjects
- Depth: students pursue 3 subjects at Higher Level. TOK and the Extended Essay also emphasise sustained research and writing.
- International mindedness: the IBDP curriculum values contributions to knowledge from a range of cultural traditions and develops empathy and critical exploration of divergent perspectives.
- Currency: each course within the IB Diploma Programme is reviewed every seven years, and all schools are involved in the process
- Personal growth: the course requires personal reflection and allows students to develop an awareness of the world-wide community of thinkers and learners through all subjects and the CAS program.

Above all, learning does not stop at the completion of year 12. A vast majority of St Leonard's College students go on to tertiary studies as the IB Diploma Programme offers an excellent preparation for the demands of life at university. The academic rigour of the Higher Level subjects, the depth of research in the Extended Essay, the reflective nature of the Theory of Knowledge course and the service component of the CAS program forge an independence that holds students in good stead for whatever studies they pursue in the future.

Additional charges for International Baccalaureate Diploma Programme students

Annual subscription charges for IBDP students are paid to the International Baccalaureate Organization. The additional tuition fee, levied in both years 11 and 12, covers student registration and associated costs for the IBDP exams, as well as the four-day Theory of Knowledge camp in year 11. In year 12, IBDP students are charged to sit the General Achievement Test (GAT). Details of the levy can be found in the Information Handbook available on the College website and STL Link.

For more information regarding the IBDP please contact Craig Rodgers, IBDP Coordinator.

craig.rodgers@stleonards.vic.edu.au

03 9909 9515

In addition, consider speaking to students currently enrolled in the IBDP at St Leonard's College.

Group 1

Chinese

Language A: Literature

Introduction

Group 1 (first language) subjects aim to introduce students to a range of texts from different periods, styles and genres, and to develop in students the ability to engage in close, detailed analysis of individual texts.

These subjects also aim to develop students' abilities of expression in both oral and written communication. Students are encouraged to recognise the contexts in which texts are written and to understand the different perspectives of people from other cultures. The final aim is to promote an enjoyment of, and lifelong interest in, language and literature.

The Language and Literature course runs over two years and students do not need to decide whether they wish to study at Higher or Standard Level until near the end of year 11.

Syllabus Language A

Part 1 – Language in cultural context

This part focuses on the exploration how language develops in specific cultural context, how it impacts the world, how language shapes both individual and group identity.

Part 2 – Language and mass communication

Exploration of the power of mass media and social media looking at a vast array of text types, such as newspaper articles, propaganda posters, cartoons, websites and social shorthand lingo (SSL).

Part 3 Literature – Texts and contexts

This part covers classical and contemporary literature, some written in Chinese and one translated from another language, such as English, Spanish, Japanese or German.

SL: Three works, **HL:** Three works

Part 4 Literature – Critical study

A close investigation of aspects of literary language, such as metaphors, narrative as figurative language, narrative voice and theories of literary criticism.

SL: Three works, **HL:** Three works

Assessment

External assessment at Standard Level.

1. Paper 1: Guided literary analysis – 20 marks – 35%
2. Paper 2: Comparative essay – 30 marks – 35%

Internal assessment

1. Individual oral – 40 marks – 30%

Assessment for HL

External assessment:

1. Paper 1: Guided literary analysis – 40 marks – 35%
2. Paper 2: Comparative essay – 30 marks – 25%
3. Higher level essay: 20 marks – 20%

Internal assessment:

1. Individual oral 40 marks – 20%

English

Language A: Literature

Language A: Language and Literature

English - Literature

Readers, writers and texts

"Just as the reader participates in the production of the text's meaning so the text shapes the reader."

Shlomith Rimmon-Kenan (2005)

This area of exploration introduces students to the nature of literature and its study. The investigation students will undertake involves close attention to the details of texts in a variety of literary forms to learn about the choices made by authors and the ways in which meaning is created. At the same time, study will focus on the role readers themselves play in generating meaning as students move from a personal response to an understanding and interpretation that is influenced by the community of readers of which they are a part. Their interaction with other readers will raise an awareness of the constructed and negotiated nature of meaning.

Time and space

"The ultimate boundary of world literature is found in the interplay of works in a reader's mind, reshaped anew whenever a reader picks up one book in place of another, begins to read, and is drawn irresistibly into a new world."

David Damrosch (2009)

This area of exploration focuses on the idea that literary texts are neither created nor received in a vacuum. It explores the variety of cultural contexts in which literary texts are written and read across time and space as well as the ways literature itself—in its content—mirrors the world at large. Students will examine how cultural conditions can shape the production of a literary text, how a literary text can reflect or refract cultural conditions, and the ways culture and identity influence reception.

Intertextuality: connecting texts

"Any text is constructed as a mosaic of quotations: any text is the absorption and transformation of another."

Julia Kristeva (1980)

This area of exploration focuses on intertextual concerns or the connections between and among diverse literary texts, traditions, creators and ideas. It focuses on the comparative study of literary texts so that students may gain deeper appreciation of both unique characteristics of individual literary texts and complex systems of connection. Throughout the course, students will be able to see similarities and differences among literary texts. This area allows for a further exploration of literary concerns, examples, interpretations and readings. Students will gain an awareness of how texts can provide critical lenses to reading other texts and of how they can support a text's interpretation by expanding on it or question it by providing a different point of view.

Assessments

Standard Level

External Assessment

- Paper 1 – 35%
- Paper 2 – 35%

Internal Assessment

- Individual Oral – 30%

Higher Level

External Assessment

Higher Level essay (completed over a designated time period and with one draft submitted for feedback) – 20%

- Exams
- Paper 1 – 35%
- Paper 2 – 25%

Internal Assessment

- Individual Oral – 20%

Group 1

English – Language and Literature

1. Area of exploration—readers, writers and texts

This area introduces students to the nature of language and literature and its study. The investigation undertaken involves close attention to the details of texts in a variety of types and literary forms so that students learn about the choices made by creators and the ways in which meaning is communicated through words, image, and sound. At the same time, study will focus on the role receivers play in generating meaning as students move from personal response to understanding and interpretation influenced by the classroom community. Students will learn to understand the creativity of language, the relationship between language and thought and the aesthetic nature of literature. Students will see that texts are powerful means to express individual thoughts and feelings, and that their own perspectives as experienced users of language are integral to the effect and success of a communicative act.

2. Area of exploration—time and space

This area of exploration focuses on the idea that language is a social capacity and as such is intertwined with community, culture and history. It explores the variety of cultural contexts in which texts are produced and read across time and space as well as the ways texts themselves reflect or refract the world at large. Students will examine how cultural conditions can affect language and how these conditions are a product of language. Students will also consider the ways culture and identity influence reception.

3. Area of exploration – intertextuality: connecting texts

This area of exploration focuses on the concerns of intertextuality, or the connections between and among media, text and audience involving diverse traditions and ideas. It focuses on the comparative study of texts so that students may gain deeper appreciation of both unique characteristics of individual texts and complex systems of connection. Throughout the course, students will be able to see similarities and differences

among diverse texts. This area allows for a further exploration of literary and linguistic concerns, examples, interpretations and readings by studying a grouping of texts set by the teacher or set in close conversation with a class or groups of students. Students will gain an awareness of how texts can provide critical lenses to reading other texts and of how they can support a text's interpretation by expanding on it or question it by providing a different point of view.

The learner portfolio

The learner portfolio is a central element of the language A: language and literature course, and is mandatory for all students. It is an individual collection of student work done throughout the two years of the course.

The work carried out for the learner portfolio forms the basis of preparation for the assessment, although the portfolio itself will not be directly assessed or moderated by the IB. However, it is a fundamental element of the course, providing evidence of the student's work and a reflection of their preparation for the assessment components.

Assessment

Standard Level

External Assessment

- Paper 1 – 35%
- Paper 2 – 35%

Internal Assessment

- Individual Oral – 30%

Higher Level

External Assessment

Higher Level essay (completed over a designated time period and with one draft submitted for feedback) – 20%

- Exams
- Paper 1 – 35%
- Paper 2 – 25%

Internal Assessment

- Individual Oral – 20%

Chinese B

Introduction

The 21st Century has been described as “The Asian Century” and in Australia we need to be focused and methodical in how we equip our young people with the essential skills they will need to engage in this globalised environment. Learning Chinese is at the heart of this training and skill set.

Chinese is spoken in a number of Asian countries. Australia has strong trade and cultural ties with China and its neighbouring countries so the language is a useful tool in industrial, commercial, cultural and scientific fields. Through the language students learn about different periods of history, literature, art and music, and are engaged in new modes of expression and different perspectives on current issues. Students learn how languages work, and the study imparts strategies of learning that can be applied in further language studies.

All language learning helps students to engage with new cultural realities and ideas. Language students develop greater intellectual curiosity along with the understanding that there are different ways of presenting reality.

Chinese in the IBDP continues the development of listening, speaking, reading and writing skills. Students work through a variety of themes over the two years of the Diploma Programme including communication

and media, global issues, social relationships, cultural diversity, customs and traditions, health, leisure, and science and technology.

To enter the year 11 course students must have completed year 10 Chinese.

Assessment component Weighting Standard Level

External assessment (3 hours) 75%

- Paper 1 (1 hour 15 minutes) 25%
- Paper 2 (1 hour 45 minutes) 50%

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 25%

Assessment component Weighting Higher Level

External assessment (3 hours 30 minutes) 75%

- Paper 1 (1 hour 30 minutes) 25%
- Paper 2 (2 hours) 50%

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 25%

English B

Introduction

English B provides students the opportunity to study English as an additional language in the Diploma Program. If English B is studied, students will need to study another language as their Language A.

All language learning helps students to engage with new cultural realities and ideas. Language students develop greater intellectual curiosity along with the understanding that there are different ways of presenting reality.

English in the IB DP continues the development of listening, speaking, reading and writing skills. Students work through a variety of themes over the two years of the Diploma including communication and media, global issues, social relationships, cultural diversity, customs and traditions, health, leisure, and science and technology.

Language B SL and language B HL

Language B English is a language acquisition course designed for students with some previous experience of English. In the language B course, students further develop their ability to communicate in English through the study of language, themes and texts. In doing so, they also develop conceptual understandings of how English works, as appropriate to the level of the course.

There are five prescribed themes which provide relevant contexts for study at all levels of language

acquisition in the DP. These themes are identities, experiences, human ingenuity, social organization and sharing the planet.

Assessment component Weighting Standard Level

External assessment (3 hours) 75%

- Paper 1 (1 hour 15 minutes) 25%
- Paper 2 (1 hour 45 minutes) 50%

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 25%

Assessment component Weighting Higher Level

External assessment (3 hours 30 minutes) 75%

- Paper 1 (1 hour 30 minutes) 25%
- Paper 2 (2 hours) 50%

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 25%

French B

Introduction

French is widely spoken throughout the world, from the province of Quebec in Canada, through North, West and Central Africa, and of course to Europe. French is an important language in Belgium, Luxemburg and Switzerland, as well as being the national language of France. French, along with English, is one of the two official languages of the United Nations and its agencies. French is also a key language in many international organisations such as the International Olympic Committee, Doctors Without Borders and the Red Cross.

France plays an important role in international affairs, is an important cultural beacon and is referred to as one of the 'motors' of European integration.

All language learning helps students to engage with new cultural realities and ideas. Language students develop greater intellectual curiosity along with the understanding that there are different ways of presenting reality. French students often find they can learn other romance languages, such as Italian and Spanish, more easily.

French in the IBDP continues the development of listening, speaking, reading and writing skills. Students work through a variety of themes over the two years of the Diploma Programme including communication

and media, global issues, social relationships, cultural diversity, customs and traditions, health, leisure, and science and technology.

To enter the year 11 course students must have completed year 10 French.

Language B SL and Language B HL

Language B French is a language acquisition course designed for students with some previous experience of French. In the language B course, students further develop their ability to communicate in French through the study of language, themes and texts. In doing so, they also develop conceptual understandings of how French works, as appropriate to the level of the course.

There are five prescribed themes which provide relevant contexts for study at all levels of language acquisition in the DP. These themes are identities, experiences, human ingenuity, social organization and sharing the planet.

Group 2

Assessment component Weighting Standard Level

External assessment (3 hours) 75%

- Paper 1 (1 hour 15 minutes) 25%
- Paper 2 (1 hour 45 minutes) 50%

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 25%

Assessment component Weighting Higher Level

External assessment (3 hours 30 minutes) 75%

- Paper 1 (1 hour 30 minutes) 25%
- Paper 2 (2 hours) 50%

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 25%

Spanish B

The study of Spanish develops students' ability to understand and use a language that is spoken by approximately 500 million people across four continents and which is one of the official languages of the United Nations and European Union. The Spanish language is the most widely spoken Romance language, both in terms of the number of speakers and the number of countries in which it is an official language. Pronunciation and usage of the Spanish language naturally vary across countries, these regional differences making the language richer.

As Spanish belongs to the family of Romance languages, derived from Latin, it has many lexical and structural connections with English as well as other European languages. The study of Spanish offers a strong literary and artistic heritage, enhanced by the range of popular cultures it represents and the colloquial expressions used by its speakers.

A knowledge of Spanish will provide opportunities to further explore intercultural connections with the Spanish speaking world and prepare students for further study and employment in areas such as interpreting and translating, the arts, architecture, tourism, community services, overseas aid, business, finance and technology.

Language B SL and language B HL

Language B Spanish is a language acquisition course designed for students with some previous experience of Spanish. In the language B course, students further develop their ability to communicate in Spanish through the study of language, themes and texts. In doing so, they also develop conceptual understandings of how Spanish works, as appropriate to the level of the course.

There are five prescribed themes which provide relevant contexts for study at all levels of language acquisition in the DP. These themes are identities, experiences, human ingenuity, social organization and sharing the planet.

Assessment component Weighting Standard Level

External assessment (3 hours) 75%

- Paper 1 (1 hour 15 minutes) 25%
- Paper 2 (1 hour 45 minutes) 50%

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 25%

Assessment component Weighting Higher Level

External assessment (3 hours 30 minutes) 75%

- Paper 1 (1 hour 30 minutes) 25%
- Paper 2 (2 hours) 50%

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 25%

Spanish Ab Initio

Introduction

The College offers the possibility for students to commence Spanish as a new language from the beginning (known as ab initio). The language ab initio course is designed for students with little or no prior experience of the language, therefore Spanish must be new to the student. If a student has been studying another language up to year 10 level and wishes to continue it into the IBDP it must be taken as a Language B subject.

Ab initio Spanish can only be taken at the Standard Level.

Language ab initio is a language acquisition course 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 is organized into five themes:

- Identities
- Experiences
- Human ingenuity
- Social organization
- Sharing the planet

Each theme has a list of topics that provide the students with opportunities to practise and explore the language as well as to develop intercultural understanding. Through the development of receptive, productive and interactive skills, students should be able to respond and interact appropriately in a defined range of everyday situations. Some of the topics covered include travel, youth issues, leisure activities and future plans.

Assessment

Over the two years students will be preparing for three external assessments and one internally assessed, but externally moderated examination (the oral component).

The assessments are:

External assessments:

- Paper 1 – productive skills (writing) 30 marks – 25%
- Paper 2 – receptive skills: 65 marks – 50%
 - Listening – 25 marks
 - Reading comprehension – 40 marks

Internal assessment:

- Oral – 30 marks – 25%

Business Management

Introduction

Students learn to analyse, discuss and evaluate business activities at local, national and international levels. The course covers a range of organisations from all sectors, as well as the socio-cultural and economic contexts in which those organisations operate.

The Business Management course covers:

- the key characteristics of business organisation
- human resource management
- finance and accounts
- marketing
- operations management.

Through the exploration of six underpinning concepts (change, culture, ethics, globalisation, innovation and strategy), the course allows students to develop a holistic understanding of today's complex and dynamic business environment. The conceptual learning is firmly anchored in business management theories, tools and techniques and placed in the context of real-world examples and case studies.

The Business Management course also encourages the appreciation of ethical concerns at both a local and global level. It aims to develop relevant and transferable skills, including the ability to think critically, make ethical decisions, appreciate the significance of change, think strategically, and undertake long term planning.

Distinction between Higher Level and Standard Level

SL and HL students of Business Management are presented with a common syllabus, with HL extension in some topics. While the skills and underpinning concepts are common to both SL and HL students, the HL student is required to acquire a further body of knowledge in certain topics, often in relation to

the planning process of a business, sometimes with a quantitative component.

In HL Business Management students will also complete an extra paper in their exam which focuses on a social enterprise.

All topics covered in year 11 will include the Higher-Level components. At the end of year 11 students elect to study Business Management at either Higher or Standard Level.

Assessment

Standard Level

External assessment – 70%

- Paper 1: 90 minutes – Based on pre-released statement (35%)
- Paper 2: 105 minutes – Based on unseen stimulus material with a quantitative focus (35%)

Internal assessment – 30%

Students produce a research project about a real business issue or problem facing a particular organisation using a conceptual lens.

Higher Level

External assessment – 80%

- Paper 1: 90 minutes – Based on pre-released statement (25%)
- Paper 2: 105 minutes – Based on unseen stimulus material with a quantitative focus (30%)
- Paper 3: 75 minutes – Based on unseen stimulus material about a social enterprise (25%)

Internal assessment – 20%

Students produce a research project about a real business issue or problem facing a particular organisation using a conceptual lens.

Economics

Introduction

Economics is a dynamic social science that studies the problem of scarcity, resource allocation and the methods and processes by which choices are made in the satisfaction of human wants. As a social science, economics uses scientific methodologies that include quantitative and qualitative elements.

The IB Diploma Programme Economics course emphasises the economic theories of:

- Introduction to economics
- Microeconomics, which deal with economic variables affecting individuals, firms and markets
- Macroeconomics, which deal with economic variables affecting governments and societies
- The global economy

The ethical dimensions involved in the application of economic theories and policies underpins the Economics course, as students are required to consider and reflect on human end goals and values.

The Economics course encourages students to develop international perspectives, fosters a concern for global issues, and raises students' awareness of their own responsibilities at a local, national and international level. The course also seeks to develop values and attitudes that will enable students to achieve a degree of personal commitment in trying to resolve these issues, appreciating our shared responsibility as citizens of an increasingly interdependent world.

Distinction between Higher Level and Standard Level

SL and HL students of Economics are presented with a common syllabus, with HL extension in some topics. While the skills and activity of studying economics are

common to both SL and HL students, the HL student is required to acquire a further body of knowledge and develop quantitative skills in order to explain and analyse economic relationships. In addition, HL students are required to recommend appropriate policy responses to proposed economic problems. These skills are specifically assessed at HL in the final examination.

All topics covered in year 11 will include the Higher Level components. At the end of year 11 students elect to study Economics at either Higher or Standard Level.

Assessment

Standard Level

External assessment – 70%

- Paper 1: 75 minutes – extended response (30%)
- Paper 2: 105 minutes – data response (40%)

Internal assessment – 30%

Students keep a portfolio in which they collect short extracts from published news media and comment on them in the light of their understanding of economics at that stage of the course. Three 800 word commentaries are selected for assessment.

Higher Level

External assessment – 80%

- Paper 1: 75 minutes – extended response (20%)
- Paper 2: 105 minutes – data response (30%)
- Paper 3: 105 minutes – HL extension paper (30%)

Internal assessment – 20%

Students keep a portfolio in which they collect short extracts from published news media and comment on them in the light of their understanding of economics at that stage of the course. Three 700 to 800 word commentaries are selected for assessment.

Geography

Introduction

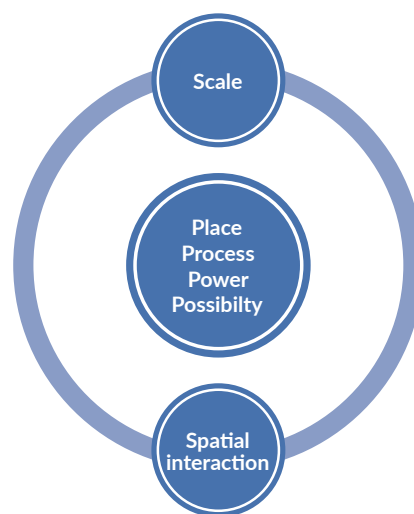
Geography is a dynamic subject that is firmly grounded in the real world and focuses on the interactions between individuals, societies and physical processes in both time and space. It seeks to identify trends and patterns in these interactions and investigates the way in which people adapt and respond to change, and evaluates actual and possible management strategies associated with these changes. Geography helps to describe and explain the similarities and differences between places from a variety of scales and from a variety of perspectives.

The Geography course integrates environmental, physical and human geography, and ensures that students acquire elements of both scientific and socioeconomic methodologies. Geography takes advantage of its position to examine relevant concepts and ideas from a wide variety of disciplines. This helps students develop an appreciation of, and a respect for, alternative approaches, viewpoints and ideas.

The course uses a conceptual and contextual approach which allows for the synthesis of knowledge and ideas and the integration of concepts and contexts through the study of specific and appropriate content. The model shows the six main concepts of the course,

the four key concepts (place, process, power and possibility) being at the center of any discussion whilst spatial concepts and scale provide the connections between the concepts.

The course comprises a core section and options.



Standard Level students must study the core themes and any two optional themes while Higher Level students must study the core themes and three optional themes, as well as three compulsory topics in the HL extension.

Group 3

The core (SL/HL)

The three topics in the core are:

- Population distribution – changing population
- Global climate – vulnerability and resilience
- Global resource consumption and security

The core section provides an overview of the geographic foundation for the core issues of our time. The purpose is to provide a broad factual and conceptual introduction to the geography of population dynamics, climate change and resource consumption issues.

Attention will be given to the positive aspects of change (not just the negative) as well as the responsibility to seek solutions to the demographic, economic and environmental issues and where appropriate, the management strategies adopted to meet these challenges.

The optional themes are a mixture of physical geography and socioeconomic geography. They allow for the development of the key geographic concepts and encompass the integration of human and natural process that combine to shape the world in which we live.

Optional themes (SL/HL)

- A. Freshwater – drainage basins
- B. Oceans and coastal margins
- C. Extreme environments
- D. Geophysical hazards
- E. Leisure, tourism and sport
- F. Food and health
- G. Urban environments

HL extension – global interaction (HL only)

- Power, places and networks
- Human development and diversity
- Global risks and resilience

Fieldwork (SL/HL)

One written report (2,500 words) based on a fieldwork question, information collection and analysis with evaluation.

There are no prerequisites for IB DP Geography, however students may have some background to these topics from Geography in year 10 or earlier.

Assessment

Assessment consists of two final exam papers worth 75% at SL and three final exam papers worth 80% at HL, as well as one internal piece of fieldwork based on a topic from the syllabus.

History

Introduction

History is more than the study of the past. It is the process of recording, reconstructing and interpreting the past through the investigation of a variety of sources. It is a discipline that gives people an understanding of themselves and others in relation to the world, both past and present.

The IB DP History course aims to promote an understanding of history as a discipline, including the nature and diversity of its sources, methods and interpretations. It also helps students to gain a better understanding of the present through critical reflection upon the past.

Syllabus

The courses studied by Higher Level and Standard Level students have certain similarities. All students undertake a source-based examination paper (Paper 1). For this examination students study military expansion from 1931 to 1941 with case studies on Japanese expansion in East Asia, and German and Italian expansion in Europe and Africa.

All students study two World History topics (assessed in Paper 2). Students may investigate the origins and development of 20th Century authoritarian states. Preparation is based on a number of detailed studies chosen from the following:

- Germany – Adolf Hitler
- Italy – Benito Mussolini
- USSR – Vladimir Lenin/Josef Stalin

- Spain – Francisco Franco
- Cuba – Fidel Castro
- China – Mao Zedong

Students may undertake a study of either the causes and effects of 20th Century wars, and/or the Cold War. These topics require students to examine topics such as the causes and practices of wars, or the role of leaders and nations in creating tensions. Various case studies, such as the Cuban Missile Crisis and Berlin Wall are studied to enable this understanding.

All students undertake an in-depth study of an historical subject. This study relates to elements of the coursework addressed when preparing for Paper 1 and Paper 2. This piece will be internally assessed.

Higher Level students will undertake a regional study (assessed in Paper 3) in which they will consolidate and deepen their study and understanding of 20th Century Europe or 20th Century Asia and Oceania. Specific areas of study, building on the work done to prepare for Papers 1 and 2, are chosen within this framework.

Group 3

Assessment

Standard Level

External assessment - 75%

- Paper 1: 1 hour document-based paper (30%)
- Paper 2: 1.5 hour essay paper on 20th Century history (45%)

Internal assessment - 25%

- Historical investigation

Higher Level

External assessment - 80%

- Paper 1: 1 hour document-based paper (20%)
- Paper 2: 1.5 hour essay paper on 20th Century history (25%)
- Paper 3: 2.5 hour essay paper on regional study (35%)

Internal assessment - 20%

- Historical investigation

Psychology

Introduction

Psychology is the rigorous and systematic study of mental processes and behaviour. It is a complex subject which draws on concepts, methods and understandings from a number of different disciplines. There is no single approach that would describe or explain mental processes and behaviour on its own as human beings are complex animals, with highly developed frontal lobes, cognitive abilities, involved social structures and cultures. The study of behaviour and mental processes requires a multidisciplinary approach and the use of a variety of research techniques whilst recognising that behaviour is not a static phenomenon, it is adaptive, and as the world, societies and challenges facing societies change, so does behaviour.

Examined through three approaches and a number of options, Psychology offers the IBDP candidate a field of study that brings together several academic traditions. Psychology's reliance upon the construction and testing of theories through rigorous empirical investigations has enabled it to develop as a social science quite distinct from neighbouring disciplines. The extensive breadth of research interests often presents psychologists with complex theoretical challenges. Through elaborate research designs and rigorous control of experimental variables, psychologists attempt to unravel these complexities. In recent years greater attention is being given to cultural variables and in vogue options such as development and relationships, among others topics.

Syllabus

Standard Level

The course of study must include:

- All three compulsory approaches
- One option from a choice of four
- One simple experimental study

Higher Level

The course of study must include:

- All three compulsory approaches
- Two options from a choice of four
- Qualitative and quantitative research methodology
- One simple experimental study

Core (SL/HL) - Part 1

- The biological approaches
- The cognitive approaches
- The sociocultural approaches

Options (SL/HL) - Part 2

- Abnormal psychology
- Developmental psychology
- Health psychology
- Psychology of human relationships

Research methodology (HL only) - Part 3

- Theory and application in qualitative and quantitative research methods

Group 3

Simple Experimental Study (HL/SL)

Introduction to experimental research methodology.

Assessment

Standard Level

External assessment - 75%

- Paper 1: 2 hours on Part 1 (50%)
- Paper 2: 1 hour on Part 2 (option) (25%)

Internal assessment - 25%

A 2,000 word report of a simple experimental study conducted by the student.

Higher Level

External assessment - 80%

- Paper 1: 2 hours on Part 1 (40%)
- Paper 2: 2 hours on Part 2 (options) (20%)
- Paper 3: 1 hour on Part 3 (20%)

Internal assessment - 20%

A 2,000 word report of a simple experimental.

Experimental Sciences

The experimental science subjects offered at St Leonard's College are Biology, Chemistry, Computer Science, Environmental Systems and Societies, Physics and Sport, Exercise and Health Science. In each of these subjects Higher and Standard Level students share a common internally assessed year 11 course, after which they choose which level to study in year 12.

It is the intention of all experimental science programs that students should be able to:

- Demonstrate an understanding of:
 - scientific facts and concepts
 - scientific methods/techniques
 - scientific terminology
 - methods of presenting scientific information
- Apply and use:
 - scientific facts and concepts
 - scientific methods/techniques
 - scientific terminology to communicate effectively
 - appropriate methods to present scientific information
- Construct, analyse, and evaluate:
 - hypotheses, research questions and predictions
 - scientific methods/techniques and procedures
 - scientific explanations
- Demonstrate the personal skills of cooperation, perseverance and responsibility appropriate for effective scientific investigation and problem solving
- Demonstrate the manipulative skills necessary to carry out scientific investigation with precision and safety

Course organisation

In each science, both HL and SL students complete a common, compulsory, subject-specific core (150 hours over two years). Higher Level students also cover a further 90 hours of additional HL material.

All year 11 Science (Physics, Chemistry, SEHS and Biology) students will also spend 10 hours on the Group 4 project.

Assessment for all science subjects

Standard Level

External assessment – 80%

- Paper 1: 1 hour and 30 minutes (36%)
 - Paper 1A: multiple choice questions
 - Paper 1B: data based questions
- Paper 2: 1 hour and 30 minutes (44%)
 - Short answer and extended response questions

Internal assessment – 20%

Practical work totalling at least 30 hours, including a 10-hour assessed practical investigation and a Group 4 project.

Group 4

Higher Level

External assessment – 80%

- Paper 1: 2 hours (36%)
 - Paper 1A: multiple choice questions
 - Paper 1B: data based questions
- Paper 2: 2 hours and 30 minutes (44%)
 - Short answer and extended response questions

Internal assessment – 20%

Practical work totalling at least 50 hours, including a 10-hour assessed practical investigation and a Group 4 project.

Biology

Introduction

Biology is the scientific study of living organisms. Biologists investigate the living world at all levels using many different approaches and techniques.

At one end of the scale is the cell, its molecular construction and complex metabolic reactions. At the other end of the scale biologists investigate the interactions that make whole ecosystems function. Many discoveries remain to be made and great progress is expected in the 21st Century.

The Biology course shares the experimental science subjects aims. In addition the program aims to:

- Inculcate in the student a respect for all forms of life through an understanding of the interaction between organisms and the unique position of humankind within such an interacting system
- Inculcate in the student a respect for the uniqueness of an individual organism
- Develop in the student the ability to evaluate biological knowledge with respect to those problems that are facing humankind at present and are likely to become more acute in the future
- Develop in the student an appreciation of the impact of biology upon issues of ethical, philosophical and political importance

There are four basic biological concepts which run throughout the Biology course:

- Unity and diversity
- Form and function
- Interaction and interdependence
- Continuity and change

Syllabus

The Biology course contains specific core topics for SL and HL, as well as additional HL topics. The aim is to integrate concepts, topic content and the nature of science through inquiry.

Core topics (HL and SL)

- Water and nucleic acids
- Cell structure
- Diversity of organisms
- Evolution and speciation
- Conservation of biodiversity
- Carbohydrates and lipids
- Proteins
- Membranes and Membrane transport
- Organelles and compartmentalization
- Cell specialization
- Gas exchange
- Transport
- Adaptation to environment
- Ecological niches
- Enzymes and metabolism
- Cell respiration and photosynthesis
- Neural signalling
- Integration of body systems
- Defence against disease
- Populations and communities
- Transfers of energy and matter
- DNA replication
- Protein synthesis
- Mutations and gene editing
- Cell and nuclear division
- Water potential
- Reproduction

Group 4

- Inheritance
- Homeostasis
- Natural selection
- Stability and change
- Climate change
- Homeostasis
- Natural selection
- Stability and change
- Climate change

Additional HL topics

HL students study the above in more detail, as well as the additional topics:

- Origins of cells
- Viruses
- Classification and cladistics
- Muscle and motility
- Chemical signalling
- Gene expression

Chemistry

Introduction

Chemistry is an experimental science combining academic study with the acquisition of practical and investigational skills. It is often called the central science as chemical principles underpin both the physical environment in which we live and all biological systems. Apart from being a subject worthy of study in its own right, chemistry is often a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science.

The Chemistry course is designed to increase the student's understanding of theoretical and physical concepts in chemistry through experimentation, discussion and application of ideas through worked problems.

Chemistry is a demanding course and requires a very good knowledge and understanding of chemistry work covered in year 10, particularly descriptive chemistry and reactions and equations. Some students who complete Units 1 and 2 Chemistry in year 10 find that this gives them an opportunity to reinforce ideas that are common to the IB course. This can be quite repetitive, however, if the student does not go on to HL Chemistry.

Syllabus

The Chemistry course contains specific core topics for SL and HL, as well as additional HL topics. The aim of the syllabus is to integrate concepts, topic content and nature of science through inquiry.

Core topics (HL and SL)

- Structure: Nature of matter from simple to more complex forms
- Models and the particulate nature of matter
 - Particulate nature of matter
 - The nuclear atoms
 - Electron configurations
 - The mole
 - Ideal gases
- Models of bonding and structure
 - The ionic model
 - The covalent model
 - The metallic model
 - From models to materials
- Classification of matter
 - The periodic table of elements
 - Functional groups of organic compounds
 - Reactivity: how and why chemical reactions occur
- What drives chemical reactions?
 - Measuring enthalpy changes
 - Energy cycles in reactions
 - Energy from fuels
 - Entropy and spontaneity
- How much, how fast and how far?
 - The amount of chemical change
 - The rate of chemical change
 - The extent of chemical change
- What are the mechanisms of chemical change?
 - Proton transfer reactions
 - Electron transfer reactions
 - Electron sharing reactions
 - Electron-pair sharing reactions

Additional HL topics

These topics are a continuation and extension of what has been studied in the core topics. HL treats each area in a much more rigorous and detailed manner, and includes more topics in each area, than SL. Chemistry students will not need to choose between SL and HL until late in year 11.

Computer Science

Standard Level only

Introduction

Computer science requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate.

The Diploma Programme computer science course is engaging, accessible, inspiring and rigorous. It has the following characteristics:

- Draws on a wide spectrum of knowledge
- Enables and empowers innovation, exploration and the acquisition of further knowledge
- Interacts with and influences cultures, society and how individuals and societies behave
- Raises ethical issues
- Is underpinned by computational thinking

Computational thinking involves the ability to:

- Think procedurally, logically, concurrently, abstractly, recursively and think ahead
- Utilize an experimental and inquiry-based approach to problem-solving
- Develop algorithms and express them clearly
- Appreciate how theoretical and practical limitations affect the extent to which problems can be solved computationally

During the course the student will develop computational solutions. This will involve the ability to:

- Identify a problem or unanswered question
- Design, prototype and test a proposed solution
- Liaise with clients to evaluate the success of the proposed solution and make recommendations for future developments

Syllabus

The Computer course contains specific core topics for SL. Students are also required to select one option topic.

Core topics (SL)

- System fundamentals
- Computer organisation
- Networks
- Computational thinking, problem solving and programming

Options (SL)

- E. Databases
- F. Modelling and simulation
- G. Web science
- H. Object Orientated programming (OOP)

Environmental Systems and Societies

Introduction

Environmental Systems and Societies (ESS) is grounded in both a scientific exploration of environmental systems in their structure and function and in the exploration of cultural, economic, ethical, political, and social interactions of societies with the environment. Students will become equipped with the ability to recognize and evaluate the impact of our complex system of societies on the natural world. The interdisciplinary nature of the course requires a broad skill set and includes the ability to perform research and investigations and to participate in philosophical discussion. Through the exploration of cause and effect, the course investigates how values interact with choices and actions, resulting in a range of environmental impacts. Students develop an understanding of how the connections between environmental systems and societies are diverse, varied and dynamic.

Syllabus

ESS is an interdisciplinary group 3 and 4 course that is offered only at standard level (SL). As an interdisciplinary course, ESS is designed to combine the methodology, techniques and knowledge associated with group 4 (sciences) with those associated with group 3 (individuals and societies). Because it is an interdisciplinary course, students can study ESS and have it count as either a group 3 or a group 4 course, or as both. If students choose the

latter option, this leaves the opportunity to study an additional subject from any other group, including an additional group 3 or group 4 subject.

Students will study eight topics across the two years. These range from foundations of environmental systems and societies, to biodiversity and conservation and climate change and energy production. As a part of their studies, students will cover, amongst many other topics, the following across the course:

- Significant historical influences on the development of the environmental movement that have come from literature, the media, major environmental disasters, international agreements and technological developments
- The laws of thermodynamics and how they govern the flow of energy in a system and the ability to do work
- How populations change and respond to interactions with the environment
- Evolution as a gradual change in the genetic character of populations over many generations
- Soil systems and how the quality of soil influences the primary productivity of an area
- Pollution management strategies
- How climate change has been a normal feature of the Earth's history, but human activity has contributed to recent changes
- Human population growth rates

Practical work is an important aspect of the ESS course, whether in the laboratory, classroom, or out in the field. Students of ESS are required to spend a minimum of 30 hours on practical activities, this time includes 10 hours for the internal assessment investigation. These practice activities can include:

- short labs or projects extending over several weeks
- computer simulations
- using databases for secondary data
- developing and using models
- data-gathering exercises such as questionnaires, user trials and surveys
- data-analysis exercises
- fieldwork.

Assessment

Standard Level

External assessment - 75%

- Paper 1: 1 hour case study examination (25%)
- Paper 2: 2 hour short answer and structured essays examination (50%)

Internal assessment - 25%

- Individual investigation report of 1,500 to 2,250 words length

Physics

Introduction

Physics seeks to explain the basic features of the natural world primarily in terms of the interactions between matter and energy. It presumes to describe the world using such elementary concepts as mass, time, distance and charge, as well as more subtle constructions such as momentum, force, energy, field, waves, relativity and quantisation. There is also the technological side of physics that complements this conceptual view, in which physical principles have been applied to construct various devices and machines that affect our daily lives.

Physics requires both confidence in mathematical skills and the ability to apply knowledge to interpret patterns and solve problems. Typically, students that do Units 1 and 2 Physics in year 10 perform very well in IB Physics and are in an excellent position to extend their knowledge and understanding with Higher Level Physics.

Syllabus

The Physics course contains specific core topics for SL and HL, as well as additional HL topics. The aim of the syllabus is to integrate concepts, topic content and the nature of science through inquiry. Skills in the study of physics are integrated into the teaching of the syllabus content. Five areas of physics are covered which include:

- Space, time and motion
- The particulate nature of matter
- Wave behaviour
- Fields
- Nuclear and quantum physics

Core topics (HL and SL)

- Kinematics
- Forces and momentum
- Work, energy and power
- Thermal energy transfers
- Greenhouse effect
- Gas laws
- Current and circuits
- Simple harmonic motion
- Wave model
- Wave phenomena
- Standing waves and resonance
- Doppler effect
- Gravitational fields
- Electric and magnetic fields
- Motion in electromagnetic fields
- Structure of the atom
- Radioactive decay
- Fission
- Fusion and stars

Additional HL topics

These topics are a continuation and extension of what has been studied in the core topics. HL treats each area in a much more rigorous and detailed manner, and includes more topics in each area, than SL. Physics students will not need to choose between SL and HL until late in year 11. Additional topics studied at HL include:

- Rigid body mechanics
- Galilean and special relativity
- Thermodynamics
- Induction
- Quantum physics

Sport, Exercise and Health Science

Introduction

The IBDP course in Sport, Exercise and Health Science involves the study of the science that underpins physical performance. The course incorporates the traditional disciplines of anatomy and physiology, biomechanics, psychology and nutrition.

Students cover a range of topics and carry out practical (experimental) investigations in both laboratory and field settings. This provides an opportunity to acquire the knowledge and understanding necessary to apply scientific principles and critically analyse human performance. Where relevant, the course will address issues of international dimensions and ethics by considering sport, exercise and health relative to the individual in a global context.

The aims of the sports, exercise and health sciences course are to:

- Appreciate scientific study and creativity within a global context through stimulating and challenging opportunities
 - Acquire a body of knowledge, methods and techniques that characterise science and technology
 - Apply and use a body of knowledge, methods and techniques that characterise science and technology
 - Develop an ability to analyse, evaluate and synthesise scientific information
 - Develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities
- Develop experimental and investigative scientific skills
 - Develop and apply 21st-century information and communication skills in the study of science
 - Become critically aware, as global citizens, of the ethical implications of using science and technology
 - Develop an appreciation of the possibilities and limitations of science and technology
 - Encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.

Assessment objectives

1. Demonstrate knowledge and understanding of: facts, concepts and terminology; methodologies and techniques; communicating scientific information.
2. Apply: facts, concepts and terminology; methodologies and techniques; methods of communicating scientific information.
3. Formulate, analyse and evaluate: hypothesis, research questions and predictions; methodologies and techniques; primary and secondary data; scientific information.
4. Demonstrate the appropriate research to carry out insightful and ethical investigations.

Group 4

Core Topics

There are six compulsory topics in the core.

Topic 1: Anatomy

Topic 2: Exercise physiology

Topic 3: Energy systems

Topic 4: Movement analysis

Topic 5: Skill in sport

Topic 6: Measurement and evaluation of human performance

Additional higher level

There are seven additional topics for higher level.

Topic 7: Further anatomy

Topic 8: The endocrine system

Topic 9: Fatigue

Topic 10: Friction and drag

Topic 11: Skill acquisition and analysis

Topic 12: Genetics and athletic performance

Topic 13: Exercise and immunity

Options

There are four options.

Students are required to study any two options.

A. Optimising physiological performance

B. Psychology of sport

C. Physical activity and health

D. Nutrition for sport, exercise and health

Assessment

External assessment – 80%

- Paper 1: 45 minutes- (20%)
 - 30 Multiple Choice questions on the core syllabus (30 marks)
 - Assessment objectives 1 and 2
- Paper 2: 1 hour 15 minutes- (35%).
 - Section A: Students answer one data-based question and several short-answer questions on the core (30 marks)
 - Section B: Students answer one extended-response question on the core. (20 marks)
 - Assessment objectives 1-3
- Paper 3: 1 hour- (25%)
 - Several short-answer questions in each of the two options studied. (40 marks)
 - Assessment objectives 1-3

Internal assessment/individual investigation – 20%

Assessment objectives 1-4. (24 marks)

This component is internally assessed by the teacher and externally moderated.

Mathematics

Introduction and aims

St Leonard's College offers two different courses in mathematics. These are two-year courses, and at all levels the courses are designed to enable students to:

- Enjoy mathematics and develop an appreciation of the elegance and power of mathematics
- Develop an understanding of the principles and nature of mathematics
- Develop logical, critical and creative thinking, and patience and persistence in problem-solving
- Appreciate the contribution of mathematics to other disciplines

Each course is designed to meet the needs of a particular group of students, therefore great care should be taken to select the course that is most appropriate for each individual student. In making this selection, students are advised to take account of the factors outlined in the course descriptions.

The two-year course consists of five topics:

- Number and Algebra
- Functions
- Geometry and Trigonometry
- Statistics and Probability
- Calculus

Equipment

IBDP students must have a non-CAS Texas

Instruments TI-nSpire CX calculator or if students had the TI-nspire CX II CAS calculator in year 10 (blue frame) this can be retained as it has the functionality to turn CAS off.

Mathematics: Analysis and Approaches

This course is for students who enjoy developing their mathematics to become fluent in the construction of mathematical arguments and develop strong skills in mathematical thinking. It will benefit students interested in studying mathematics, engineering, physical science and some economics at university.

The standard level course caters for students with a solid background in mathematics who are competent in a range of analytical and technical skills and have a good interest in mathematics. Students taking this course will be interested in exploring real and abstract applications with and without technology.

The higher level course caters for students who have studied Mathematics 10A (and achieved very high results across all topic areas) or more commonly Mathematical Methods Units 1 and 2 in Year 10. They will have excellent algebraic skills and enjoy exploring new concepts that challenge them. These students will be expecting to include mathematics as a major component of their university studies, either as a subject in its own right or within courses such as physics, engineering and technology. As such there is a stronger focus on calculus within the higher level course.

Group 5

Assessment

External assessment – 80%

- Paper 1: 1.5 hours, no calculator allowed (40%)
 - Section A: Compulsory short-response questions based on the whole syllabus.
 - Section B: Compulsory extended-response questions based on the whole syllabus.
- Paper 2: 1.5 hours, calculator required (30%).
 - Section A: Compulsory short-response questions based on the whole syllabus.
 - Section B: Compulsory extended-response questions based on the whole syllabus.

Internal assessment – 20%

Mathematical exploration - a piece of written work that involves investigating an area of mathematics.

Assessment

Higher Level

External assessment – 80%

- Paper 1: 2 hours, no calculator allowed (30%)
 - Section A: Compulsory short-response questions based on the whole syllabus.
 - Section B: Compulsory extended-response questions based on the whole syllabus.
- Paper 2: 2 hours, calculator required (30%).
 - Section A: Compulsory short-response questions based on the whole syllabus
 - Section B: Compulsory extended-response questions based on the whole syllabus.
- Paper 3: 1 hour, calculator required (20%)
 - Two compulsory extended response problem solving questions based on the whole syllabus.

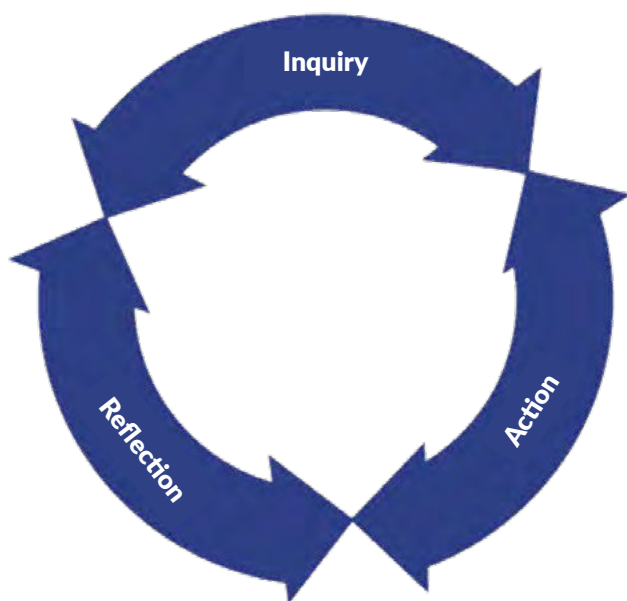
Internal assessment – 20%

Mathematical exploration - a piece of written work that involves investigating an area of mathematics.

Film

Film is a powerful and stimulating art form and practice.

The DP film course aims to develop students as proficient interpreters and makers of film texts. Through the study and analysis of film texts, and through practical exercises in film production, the film course develops students' critical abilities and their appreciation of artistic, cultural, historical, and global perspectives in film. Students examine film concepts, theories, practices and ideas from multiple perspectives, challenging their own viewpoints and biases in order to understand and value those of others. The film course is intended to be taught through dynamic cycles of inquiry, action and reflection. There is no exam for IB DP Film.



Overview

Film Portfolio

Students at SL and HL undertake a variety of film-making exercises in three film production roles, led by clearly defined filmmaker intentions. They acquire and develop practical skills and techniques through participation in film exercises, experiments and the creation of at least one completed film.

SL 40%, HL 25%

Textual Analysis

Students at SL and HL demonstrate their knowledge and understanding of how meaning is constructed in film. They do this through a written analysis of a prescribed film text based on a chosen extract (lasting no more than five minutes) from that film.

SL 30%, HL 20%

Comparative Study

Students at SL and HL carry out research into a chosen area of film focus, identifying and comparing two films from within that area and presenting their discoveries as a recorded multimedia comparative study.

SL 30%, HL 20%

Collaborative Film Project (HL only)

Bringing together all they have encountered during the film course, students at HL work collaboratively in a core production team to plan and create an original completed film.

HL 35%

Music

Students are expected to be having private music lessons when they are studying the IB Music subject.

Introduction

This practical course fosters students' musicianship and shapes their musical identities as researchers, creators and performers. Students develop their knowledge and understanding of music through the practical processes of exploring, experimenting and presenting.

Students are required to engage with the diverse nature of music, looking to explore music with which they are both familiar and unfamiliar. This will broaden their cultural and musical perspectives, fostering international-mindedness as they explore music from a personal context, local context and global context.

Aims

- Enjoy lifelong engagement with the arts
- Develop as informed, perceptive and analytical musicians
- Explore a range of musical contexts and make links to different musical practices, conventions and forms of expression
- Evaluate and develop critical perspectives on their own music and the music of others
- Express ideas creatively and competently in music, both individually and in collaboration with others
- Explore and value the diversity of the Arts across time, place and cultures

Syllabus

Exploring Music in Context

Students will learn how to engage with a diverse range of music that will broaden their musical horizons and provide stimuli to expand their own music-making. Students will demonstrate diversity and breadth in their exploration by engaging with music from the areas of inquiry in personal, local and global contexts.

Experimenting with Music

When experimenting with music, students connect theoretical studies to practical work and gain a deeper understanding of the music they engage with. Through this theoretical and practical work as researchers, creators and performers, students will learn to experiment with a range of musical material and stimuli from the areas of inquiry across local and global contexts.

Presenting Music

Students learn to practice and prepare finished pieces that will be performed to an audience. In working towards completed musical works, students expand their musical identity, demonstrate their level of musicianship, and learn to share and communicate their music as researchers, creators and performers.

The Contemporary Music Maker (HL only) Music at HL builds on the learning of musical competencies and challenges students to engage with the musical processes in settings of contemporary music-making. Students plan and collaboratively

Group 6

create a project that draws on the competencies, skills and processes in all aspects of the Music course and is inspired by real-life practices of music-making.

Assessment

Exploring Music in Context

External assessment: SL 30% HL 20%

Students maintain a music journal during the course. They select samples of their work for a portfolio submission of:

- a. Written work demonstrating engagement with, and understanding of, diverse musical material
- b. Practical exercises including one creating exercise and one performance adaptation for the students' own instrument

Experimenting with Music

Internal assessment: SL 30% HL 20%

Students submit an experimentation report with evidence of the musical processes in creating and performing in two areas of inquiry in a local and/or global context. Students submit:

- a. Written report providing a rationale and commentary supporting the experimentation process
- b. Practical musical evidence of the experimentation process including three related excerpts of creating and three related excerpts of performing

Presenting Music

External assessment: SL 40% HL 30%

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

- a. Presenting as a Researcher: Program notes (max 600 words) introducing the performance program and justifying the musical selection
- b. Presenting as a Creator: Composition and/or improvisation (maximum 6 minutes)
- c. Presenting as a Performer: Solo and/or ensemble program (maximum 12 minutes) and excerpts of individual parts as applicable (maximum 2 minutes)

The Contemporary Music-maker

Internal assessment: HL only - 30%

Students submit a multimedia presentation (15 minutes) documenting their real-life project.

This includes evidence of:

- a. The project proposal
- b. The process and evaluation
- c. The realized project or appropriate selections

Theatre

Introduction

Theatre is a dynamic, collaborative and live art form. It is a practical subject that encourages discovery through experimentation, the taking of risks and presentation of ideas to others. It results in the development of both theatre and life skills, and the building of confidence, creativity and working collaboratively.

The IB DP Theatre course is a multifaceted theatre-making course of study. It gives students the opportunity to make theatre as creators, designers, directors and performers. The course emphasises the importance of working both individually and collaboratively as part of an ensemble, and offers the opportunity to engage actively in the creative process, transforming ideas into actions as inquisitive and productive artists.

Syllabus

Staging play texts

This area of the syllabus addresses the transformation of play texts into action. Students examine the ways in which ideas are articulated in texts by playwrights and the ways in which performance and production elements can be used to effectively fulfill theatre-maker intentions.

Exploring world theatre traditions

This area of the syllabus addresses the students' exploration of world theatre traditions through academic and practical research and exploration.

Students inquire into and physically explore world theatre traditions, performance conventions and material from those traditions to gain a deeper understanding and appreciation of the traditions through body and or voice.

Collaboratively creating original theatre

This area of the syllabus addresses the collaborative development and performance of original theatre as part of an ensemble of theatre makers. Students formulate intentions for theatre-making and examine ways in which these intentions can be effectively realized through the creation of original performance work inspired by a starting point.

Performing theatre theory (HL only)

This area of the syllabus addresses the exploration of aspects of theatre theory and the ways in which theory can inform performance. Students research at least one theatre theorist, identify an aspect of their work, and apply this to create and present work that demonstrates this theory in performance.

Theatre journal

Students keep a theatre journal throughout the two-year theatre course which charts their development and their experiences of theatre as a creator, designer, director, performer, and spectator. They follow an inquiry cycle, developing, presenting, and evaluating their work and live performances.

Group 6

Assessment

Solo theatre piece

Students at HL research a theatre theorist they have not previously studied, identify an aspect(s) of theory, and create and present a solo theatre piece (lasting 4 to 7 minutes maximum) that demonstrates the practical application of this theory to a theatre piece for an audience. A report of 2500 words maximum and a video recording of the piece is externally assessed.

HL 35% (Not undertaken in SL)

Production proposal

(Internally assessed)

Students at SL and HL choose a published play text that they have not previously studied and formulate a vision for the design and theoretical staging of the entire piece for an audience. The ideas are presented in the form of a proposal. Each student submits the following:

1. A production proposal, (maximum 12 pages of written text and images, with written text not exceeding 4000 words, plus a list of sources used.)

SL 30%, HL 20%

Research presentation

Students at SL and HL plan and deliver and video record an individual presentation, (15 minutes maximum) in which they provide evidence of their academic and practical exploration and learning of a world theatre tradition they have not previously studied. A video recording of the live presentation with sources cited is externally assessed.

SL 30%, HL 20%

Collaborative project

Students at SL and HL collaboratively create and present an original piece of theatre (lasting 7-10 minutes) created from a starting point of their choice. The piece is presented to an audience as a full realised production, created from a starting point of their choice. A project report of 4000 words maximum and a list of sources is also submitted.

SL 40%, HL 25%

Visual Arts

Introduction

IBDP Visual Arts is for students who are interested in Visual Communication Design, Art, Textiles and Media. Art forms can include but are not limited to painting, drawing, printmaking, sculpture, film, video, ceramics, sound, photography, performance, textiles, fashion, digital artworks, interdisciplinary practices, installations and street art. The course is designed for students who want to go on to study visual arts/design in higher education as well as for those who are seeking lifelong enrichment through visual arts, problem-solving and divergent thinking. The visual arts are an integral part of everyday life, permeating all levels of human creativity, expression, communication and understanding.

They may have sociopolitical impact as well as ritual, spiritual, decorative and functional value; they can be persuasive and subversive in some instances, enlightening and uplifting in others. The IB Diploma Programme 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 and design-makers. There is no exam in IBDP Visual Arts

Year 11: Students participate in a series of studio-based workshops, where they gain experience in a variety of processes, techniques and materials looking at both traditional and contemporary practices.

These cover all three art making forms. During the exploration of techniques students will begin a contextual investigation in their Process Portfolio to develop their own distinctive style. Students will complete an independent critical and contextual investigation/comparative study exploring artworks, objects and artifacts from differing cultural contexts.

Year 12: Students will develop an independent exhibition including theoretical and curatorial practice which will be carefully documented in their Process Portfolio. Class activities are an important source for gathering information. Field trips, gallery visits and workshops play a significant role in enhancing IBDP Visual Arts studies.

Two-dimensional forms

Graphics: such as illustration and design

Drawing: such as charcoal, pencil, ink

Painting: such as acrylic, oil, watercolour

Printmaking: such as relief, intaglio, planographic, chine collé

Three-dimensional forms

Sculpture: such as ceramics, found objects, wood, assemblage

Designed objects: such as fashion, architectural, vessels

Site specific/ephemeral: such as land art, installation, mural

Textiles: such as fibre, weaving, printed fabric

Lens-based, electronic and screen-based forms

Time-based and sequential art: such as animation, graphic novel, storyboard

Lens media: such as still, moving, montage

Digital/screen based: such as vector graphics, software generated

Group 6

Syllabus and assessment

Visual Arts is a two-year course and consists of three tasks, all of which are compulsory.

Comparative study – external assessment (20%)

Students analyse and compare artworks by different artists. This independent critical and contextual investigation explores artworks, objects and artifacts from differing cultural contexts. (SL/HL: 10 to 15 pages).

HL students are also required to reflect on the extent to which their work and practices have been influenced by any of the art/artists examined in this presentation (three to five pages).

Process portfolio – external assessment (40%)

Students submit carefully selected materials that evidence their experimentation, exploration, manipulation and refinement of a variety of visual arts activities during the two-year course. The work submitted should be in at least three different art-making forms. (SL: 9 to 18 pages, HL: 13 to 25 pages).

Exhibition – internal assessment (40%)

Students submit for assessment a selection of resolved artworks from their exhibition. The selected pieces should show evidence of their technical accomplishment during the visual arts course and an understanding of the use of materials, ideas and practices appropriate to visual communication.

This assessment comprises finished works (SL 4 to 7 works, HL 8 to 11 works) and curatorial rationale (SL 400 words, HL 700 words).

IBDP Course Guide

Contacts

Commerce

George Katris, Head of Learning - Commerce

George.Katris@stleonards.vic.edu.au

Business Management

Economics

Drama

Brendan Carroll, Head of Learning - Drama

Brendan.Carroll@stleonards.vic.edu.au

Theatre

English

Maggie Walsh, Head of Learning - English

Maggie.Walsh@stleonards.vic.edu.au

Language & Literature

Literature

English B

Digital Technologies

Vaughan Anderson, Head of Learning - DigiSTEM

Vaughan.Anderson@stleonards.vic.edu.au

Computer Science

Health, Sport and Exercise Sciences

Jason Kam, Head of Learning

- Health, Sport and Exercise Sciences

Jason.Kam@stleonards.vic.edu.au

Sport, Exercise and Health Science

Humanities

Bianca Crawford, Head of Learning - Humanities

bianca.crawford@stleonards.vic.edu.au

Environmental Systems and Societies

History

Geography

Languages

Elvira Caballero, Head of Learning - Languages

Elvira.caballero@stleonards.vic.edu.au

Chinese A

Chinese B

French B

Spanish B

Spanish Ab initio

Mathematics

Sara Woolley, Head of Learning - Mathematics

Sara.Woolley@stleonards.vic.edu.au

Mathematics: Analysis and Approaches (SL/HL)
(Year 11 and Year 12)

Music

Nicole Hutchinson, Head of Music - Education

Nicole.Hutchinson@stleonards.vic.edu.au

Music

Science

Lauren Binge, Head of Learning - Science

Lauren.Binge@stleonards.vic.edu.au

Biology

Chemistry

Physics

Psychology

Visual Art

Margot Anwar, Head of Learning - Visual Arts

Margot.Anwar@stleonards.vic.edu.au

Film

Visual Arts



St Leonard's College

An education for life.