

# International Baccalaureate Diploma Program 



## WIS Graduation and Course Requirements

 Grades 11 \& 12Updated January 2024

## Table of Contents

International Baccalaureate (IB) Diploma Program: Overview ..... 1
THE IB DIPLOMA ..... 1
THE IB COURSE CERTIFICATE ..... 1
DP Subject Groups and Courses Offered at WIS ..... 3
Group 1 - Studies in Language and Literature (Language A) ..... 3
Group 2 - Language Acquisition (Language B and Ab initio) ..... 3
Group 3 - Individuals and Societies ..... 3
Group 4 - Sciences ..... 3
Group 5 - Mathematics ..... 3
Group 6 - The Arts ..... 3
RECOMMENDED INSTRUCTIONAL HOURS ..... 4
CORE ELEMENTS ..... 4
WIS ELECTIVE COURSES ..... 4
Diploma Program Grading ..... 5
SUBJECT GRADES ..... 5
Studies in Language and Literature (Language A) ..... 7
Language B: Chinese, French, and Spanish ..... 10
Individuals and Societies: Economics (HL/SL), Geography (HL/SL), History (HL/SL), and Psychology (HL/SL) ..... 12
Economics: Higher and Standard Levels ..... 13
Geography: Higher and Standard Levels ..... 15
History: Higher and Standard Levels ..... 17
Psychology: Higher and Standard Levels ..... 18
Sciences: Biology (HL/SL), Chemistry (HL/SL), Computer Science (HL/SL), Design Technology (HL/SL), Environmental Systems and Societies (SL only), \& Physics (HL/SL) ..... 19
Biology, Chemistry, and Physics: Higher and Standard Levels ..... 19
Computer Science: Higher and Standard Levels ..... 21
Design Technology: Higher and Standard Levels ..... 22
Environmental Systems and Societies: Standard Level ..... 24
Mathematics: Analysis and Approaches (HL/SL); Applications and Interpretation (HL/SL) ..... 25
The Arts: Music (HL/SL), Theatre (HL/SL), and Visual Arts (HL/SL) ..... 27
Music: Higher and Standard Levels ..... 28
Theatre: Higher and Standard Levels ..... 30
Visual Arts: Higher and Standard Levels ..... 32
The Core: Theory of Knowledge, the Extended Essay, and Creativity, Activity, Service ..... 34
Theory of Knowledge ..... 34
The Extended Essay ..... 35
Creativity, Activity, Service ..... 36
Elective Courses during the IB Diploma Years ..... 37

## INTERNATIONAL BACCALAUREATE (IB) DIPLOMA PROGRAM: OVERVIEW

The IB Diploma Program (DP) is a challenging university preparatory curriculum for the final two years of high school. Dating back to the first graduating class in 1977, all WIS graduates have pursued a DP course of study culminating in either an IB Diploma or IB Course Certificates. As one of the first schools in the world to offer the IB Diploma, WIS takes considerable pride in the depth of experience of its faculty and the levels of success they help our students achieve in their DP examinations. The quality of our students' preparation for the Diploma is greatly enhanced by the long and continuing relationship that exists between the school and the International Baccalaureate Organization (IBO), a relationship exemplified by the large number of faculty who hold positions as examiners within the IBO system.

In recent years the IB has experienced rapid growth in public and independent schools in the U.S.A, Canada and elsewhere. There are now over 3,400 IB Diploma Program schools worldwide and the number continues to grow. Increasing numbers of schools around the world are attracted to the IB Diploma Program as one of the most comprehensive, challenging and intellectually stimulating courses of study in the world. The DP provides a balanced educational experience with a global perspective and is designed for committed, academically capable students.

## THE IB DIPLOMA

The Diploma Program is often represented as a wheel with six subject groups surrounding a core (see below). In the second half of the Grade 10 year, students select one subject from each of the six groups which are then studied concurrently in Grades $11 \& 12$. This course structure dictates an overall balance in the students' program and prevents over-specialization; however, it remains flexible enough to allow students to concentrate on areas of interest and to meet special requirements for university entrance. WIS students have a wide range of options among the different DP subject areas and are encouraged to build a personalized program that meets their individual needs as learners.

Diploma candidates must take at least three of their subjects at a more intensive level called Higher Level (HL). Their remaining subjects are taken at Standard Level (SL). A few students may choose to take four HL subjects, but the school typically does not encourage students to "overload" their program.

In addition to their six main subjects, students must also satisfy the three requirements that occupy the core of the curriculum: a major research essay (the Extended Essay), a course in the Theory of Knowledge, and a range of extra-curricular engagements across three strands: Creativity, Activity, and Service (CAS).

## THE IB COURSE CERTIFICATE

Students pursuing the IB Course Certificate pathway can include a proportionally more significant number of SL courses in their program. For example, a Course Certificate student might take two HL courses, four SL courses, or even six SL courses. Students are still expected to select their courses from the six academic areas in a balanced manner. They must also complete the Theory of Knowledge course and the CAS requirement from the program's core; however, they do not have to complete the Extended Essay.

Choosing appropriate academic options for Grades $11 \& 12$ is the subject of important meetings held between the college counselors and Grade 10 students. Whichever route a student and his or her family selects, diploma or certificate, the student will concurrently fulfill the graduation requirements necessary to receive the WIS High School Diploma.

## INTERNATIONAL BACCALAUREATE (IB) DIPLOMA PROGRAM



## DP SUBJECT GROUPS AND COURSES OFFERED AT WIS

## Group 1 - Studies in Language and Literature (Language A)

Every WIS student must complete a first language course designated in IB terminology as Language A. There are two courses students can choose from in the Language A realm; both are intended for native or fully bilingual speakers of a language. Language A: Literature focuses on the advanced study of literature while reinforcing oral and written skills. Language A: Language and Literature balances the focus areas of advanced study of literature and advanced study of non-literary texts and genres. Language A courses offered at WIS include English (Literature), and French and Spanish (Language and Literature), at both Higher and Standard Levels. Approximately 50 other Language A options are available through a private tutoring system.

## Students seeking the bilingual diploma may take a combination of two Language $A$ courses.

## Group 2 - Language Acquisition (Language $B$ and $A b$ initio)

WIS students must also take a second language course. Those who are studying a language that is their second language would pursue Language B. Beginners in a language would pursue an Ab Initio course, offered at Standard Level only. Language B courses offered at WIS include Chinese, French, and Spanish at both Higher and Standard Levels. $A b$ initio languages offered at WIS depend upon levels of enrollment.

## Group 3 - Individuals and Societies

WIS students must pursue at least one course from the group of subjects called Individuals and Societies; this group contains the humanities and social sciences. Group 3 subjects offered at WIS include Economics, Geography, History, and Psychology at both Higher and Standard Levels.

## Group 4 - Sciences

WIS students are required to complete at least one course in the sciences. Sciences offered at WIS include Biology, Chemistry, Computer Science, Design Technology, and Physics at both Higher and Standard Levels, and Environmental Systems and Societies at Standard Level.

## Group 5 - Mathematics

All WIS students are required to complete a mathematics course. Two options are available at both Higher and Standard Levels: Mathematics: Analysis and Approaches and Mathematics: Applications and Interpretation. Both courses encompass the same five topics but with different emphases and depth in each area: number and algebra, functions, geometry and trigonometry, statistics and probability, and calculus. The Analysis courses place relatively greater emphasis on conceptual mathematical thinking and abstract problem-solving, and dedicate more overall hours to the algebra and calculus topics. The Applications courses place relatively greater emphasis on modelling, statistics, and using technology, and dedicate more overall hours to the probability and statistics topic. For both courses, the Higher Level option is most suitable for students with a strong background and academic record in mathematics.

## Group 6 - The Arts

To complete their menu of six subjects, students must select either one of the arts subjects offered in Group 6, or they may choose a second subject from any of the Groups 1 through 4. Group 6 subjects offered at WIS include Visual Arts, Music, and Theatre Arts; they all are offered at both Higher and Standard Levels.

Students interested in subjects not listed above may inquire about the possibility of an online course via Pamoja, the IB's approved provider (pamojaeducation.com/ib-diploma)

## DP SUBJECT GROUPS AND COURSES OFFERED AT WIS

## SAMPLE PROGRAMS

Collected below are some sample IB Diploma Program courses of study that illustrate how a student with a particular interest can direct his/her program without losing the overall subject balance demanded by the IB. Again, students must select a subject from each of Groups 1 through 5; however, for their sixth choice they can choose an arts subject or return to Groups 1 through 4 to "double up" in an area of interest. For example:

The budding astronaut might choose:
Mathematics Analysis HL, Physics HL, Chemistry HL, English A: Literature SL, French B SL, Economics SL

## The emerging linguist might choose:

English A: Literature HL, French A: Language and Literature HL, History HL, Chinese B SL, Math Analysis SL, Biology SL

The committed artist might choose:
Visual Arts HL, Geography HL, Spanish B HL, Math Applications SL, Environmental Systems and Societies SL, English A: Literature SL

## RECOMMENDED INSTRUCTIONAL HOURS

The IB recommends a minimum of 240 instructional hours for Higher Level courses and 150 instructional hours for Standard Level courses.

## CORE ELEMENTS

In addition to the six academic subjects, which give both breadth and depth to a student's academic program, the IB has three additional required elements that encompass an intellectual overview of the process and substance of learning: an exercise in original research, and recognition of interests and activities outside of the classroom. These requirements are the Theory of Knowledge (TOK) course, the Extended Essay (EE), and Creativity, Activity, and Service (CAS).

## WIS ELECTIVE COURSES

WIS also offers a range of elective courses for Grades $11 \& 12$. These courses, designed by the school, may be used toward the four semesters of Arts courses required for WIS graduation. Some electives may also be used to satisfy the "creativity" part of the IB's CAS requirement.

WIS currently offers the following elective courses:

| Advanced Robotics | Journalism | Visual Arts |
| :--- | :--- | :--- |
| Chinese | Narrative Film Production | Vocal Music |
| Design Technology | Theatre Arts | Yearbook |
| Instrumental Music |  |  |

## DIPLOMA PROGRAM GRADING

## SUBJECT GRADES

International Baccalaureate Diploma Program subjects are graded on a 7-point scale as follows:

| Grade or Points | Description |
| :---: | :--- |
| 7 | Excellent |
| 6 | Very Good |
| 5 | Good |
| 4 | Satisfactory |
| 3 | Mediocre |
| 2 | Poor |
| 1 | Very Poor |

An IB Diploma is awarded to candidates who earn a total of 24 points or more in their examined subjects, where each subject grade counts as an equivalent number of points, and students may also earn up to 3 points for their grades in the EE and TOK. In addition to the 24-point threshold, there are several conditions for the awarding of a diploma that ensure the overall points are achieved by an appropriate level of success in the majority of the subject areas.

Examples of a few of these additional provisions are:

- No grade of 1, no more than two grades of 2, and no more than three grades of 3
- A minimum of 12 points in Higher Level subjects
- A minimum of 9 points in Standard Level subjects

A full list of the conditions for the awarding of an IB Diploma is available from the IB Diploma Program coordinator's office.

## CORE ELEMENTS

The core elements of Theory of Knowledge and the Extended Essay are assessed on an A to E scale.

| Grade | Description |
| :---: | :---: |
| A | Excellent |
| B | Good |
| C | Satisfactory |
| D | Mediocre |
| E | Poor |

It is possible to earn additional points from grades achieved in TOK and the Extended Essay; these points are subsequently added to the total of points a candidate has achieved from his/her subject examinations.

The chart on the next page illustrates the basis for awarding bonus points.

## DIPLOMA PROGRAM GRADING

|  |  | Theory of knowledge |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Grade <br> A | $\begin{gathered} \text { Grade } \\ \text { B } \end{gathered}$ | Grade <br> c | $\begin{gathered} \text { Grade } \\ \text { D } \end{gathered}$ | Grade <br> E | № grade <br> N |
|  | Grade <br> A | 3 | 3 | 2 | 2 | Falling condition | Falling condition |
|  | $\begin{gathered} \text { Grade } \\ \text { B } \end{gathered}$ | 3 | 2 | 2 | 1 | Falling condition | Falling condition |
|  | Grade <br> C | 2 | 2 | 1 | 0 | Falling condition | Falling condition |
|  | Grade <br> D | 2 | 1 | 0 | 0 | Falling condition | Falling condition |
|  | Grade E | Falling condition | Falling condition | Falling condition | Falling condition | Falling condition | Falling condition |
|  | No grade <br> N | Falling conalition | Falling condition | Falling conalition | Falling condition | Falling condition | Falling condition |

For example, a student who earns a B in the Extended Essay and an A in TOK would receive 3 points. A student who receives an $E$ in either element would fail the Diploma irrespective of how many points have been awarded in the subject exams. The maximum possible points score for a Diploma candidate is 45 : six subject scores of 7 points plus 3 bonus points.

## IB SUBJECT GROUP ONE: STUDIES IN LANGUAGE AND LITERATURE

## STUDIES IN LANGUAGE AND LITERATURE (LANGUAGE A)

Students at WIS must take a Language A course in English as part of their Diploma Program studies. Many students also take a second Language A courses in French or Spanish (or in another language, with a private tutor). A program that includes two subjects from the Studies in Language and Literature group results in a Bilingual Diploma recognition from the IB. The following courses are regularly offered at WIS:

| Language | Courses |
| :--- | :--- |
| English | Language A: Literature (HL or SL) |
| French | Language A: Language and Literature (HL or SL) |
| Spanish | Language A: Language and Literature (HL or SL) |

## AIMS

The aims of all subjects in Studies in Language and Literature are to enable students to:

- 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 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 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.


## NATURE OF THE SUBJECT \& SYLLABUS OUTLINE

The Literature and Language and Literature courses share a common core structure. Throughout the courses, students engage with three areas of exploration-readers, writers, and texts; time and space; and intertextuality-which are connected via seven concepts-identity, creativity, communication, perspective, transformation, and representation. Each of the three areas of exploration constitutes a third of the course ( 50 hours each at Standard Level, and 80 hours each at Higher Level).

The syllabus is flexible in that teachers may select works from a broad list of prescribed authors, with an emphasis on curating a variety of genres, historical periods, and themes. The following table summarizes the minimum number of works that students must read in each course.

| Literary Works Read | Literature |  | Language and <br> Literature* |  |
| :--- | :--- | :--- | :--- | :--- |
|  | SL | HL | SL | HL |
| Works in translation | 3 | 4 | 1 | 2 |
| Works originally written in the language studied | 4 | 5 | 1 | 2 |
| Free choice works | 2 | 4 | 2 | 2 |
| Total works studied | $\mathbf{9}$ | $\mathbf{1 3}$ | $\mathbf{4}$ | $\mathbf{6}$ |

*In the Language and Literature course, students complement literary texts with several non-literary texts that are equivalent in teaching and learning time.

## IB SUBJECT GROUP ONE: STUDIES IN LANGUAGE AND LITERATURE

Distinctions between the two subjects:

## Language A: Literature

In the Language A: Literature course, students will learn about the various manifestation of literature as a powerful mode of writing across cultures and throughout history. They will explore and develop an understanding of factors that contribute to the production and reception of literature, such as: the creativity of writers and readers; the nature of the interaction with the writers' and readers' 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 literary texts in several forms and from different times and places, students will consider their own interpretations, as well as the critical perspectives of others. In turn, this will encourage the exploration of how viewpoints are shaped by cultural belief systems and how meanings are negotiated within them.
Students will be involved in processes of critical response and creative production, which will help shape their awareness of how texts work to influence the reader and how readers open the possibilities of texts. With its focus on literature, this course is particularly concerned with developing sensitivity to aesthetic uses of language and empowering students to consider the ways in which literature represents and constructs the world and social and cultural identities.

## Language A: Language and Literature

In the Language A: Language and Literature course, students will learn about the complex and dynamic nature of language and explore both its practical and aesthetic dimensions. They will explore the crucial role language plays in communication, reflecting experience and shaping the world. Students will also learn about their own roles as producers of language and develop their productive skills. Throughout the course, students will explore the various ways in which language choices, text types, literary forms and contextual elements all effect meaning. Through close analysis of various text types and literary forms, 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. Students will engage in activities that involve them in the process of production and help shape their critical awareness of how texts and visual and audio elements work independently or together to influence the audience/reader and how audiences/readers open the possibilities of texts. With its focus on a wide variety of communicative acts, the course is meant to develop sensitivity to the foundational nature, and pervasive influence, of language in the world at large.
"Text" in this subject is defined as anything from which information can be extracted, and includes the widest range of oral, written, and visual materials present in society. This range will include single and multiple images with or without text, literary and nonliterary written texts and extracts, media texts (for example, films), radio and television programs and their scripts, and electronic texts that share aspects of a number of these areas (for example, video-sharing websites, web pages, social media messages, blogs, wikis, and tweets). Oral texts will include readings, speeches, broadcasts, and transcriptions of recorded conversation.

## IB SUBJECT GROUP ONE: STUDIES IN LANGUAGE AND LITERATURE

## ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :---: | :---: | :---: |
| External assessment | 70\% | 80\% |
| Paper 1: Guided literary/textual analysis (1h15m SL/2h15m HL) <br> Literature: the paper consists of two literary passages, from two different literary forms, each accompanied by a question. Students write analysis of one of the passages (SL) or both (HL) <br> Language and Literature: the paper consists of two non-literary passages, from two different text types, each accompanied by a question. Students choose one passage and write an analysis of it. | 35\% | 35\% |
| Paper 2: Comparative Essay (1h45m HL \& SL) <br> 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. | 35\% | 25\% |
| HL Essay <br> Literature: Students submit an essay of 1200-1500 words on one work studied during the course. <br> Language and Literature: Students submit an essay of 1200-1500 words on one non-literary body of work, or a literary work studied during the course. | NA | 20\% |
| Internal assessment: <br> Individual Oral (15 minutes) <br> Students offer a prepared response of 10 minutes, followed by 5 minutes of questions by the teacher, examining the ways in which a global issue is presented in the content and form of works/bodies of work studied in the course. In Literature, students select an extract from one work originally in the language studied and one from a work studied in translation. In Language and Literature, students select an extract from one non-literary body of work and one from a literary work. | 30\% | 20\% |

## IB SUBJECT GROUP TWO: LANGUAGE ACQUISITION

## LANGUAGE B: CHINESE, FRENCH, AND SPANISH

## AIMS

The following aims are common to both Language B and Language $A b$ Initio:

- 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 an additional language.
- foster curiosity, creativity and a lifelong enjoyment of language learning.


## NATURE OF THE SUBJECT \& SYLLABUS OUTLINE

Language $B$ is a language acquisition course that targets the development of three fundamental communication skills: receptive skills, productive skills, and interactive skills. The course approaches the learning of language through engagement with topics of personal, local, or global interest, organized around five prescribed themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students explore these themes through the analysis and production of a variety of oral and written text types, drawing from the categories of personal texts, professional texts, and mass media texts. The course aims to hone students' understanding of language through exploring key concepts of language: audience, context, purpose, meaning, and variation.

Distinctions between HL and SL: generally, students taking Language B at Higher Level are expected to demonstrate greater depth and development of receptive, productive, and interactive skills. In addition, students in Higher Level must read two literary texts originally written in the target language.

ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $\mathbf{7 5 \%}$ | $\mathbf{7 5 \%}$ |
| Paper 1: Productive skills—writing (1h15m SL; 1h30m HL) <br> One writing task from a choice of three, each from a different theme, <br> choosing a text type from among those listed in the examination <br> instructions. SL: 250-400 words; HL 450-600 words | $25 \%$ | $\mathbf{2 5 \%}$ |
| Paper 2: Receptive skills—separate sections for listening and reading (1h45m <br> SL; 2hHL) <br> Listening comprehension: 45m SL; 1h HL. Comprehension exercises on <br> three audio passages drawn from all five themes. | $\mathbf{5 0 \%}$ | $\mathbf{5 0 \%}$ |
| Reading comprehension: 1 h SL \& HL. Comprehension exercises on three <br> written texts, drawn from all five themes. | $25 \%$ | $\mathbf{2 5 \%}$ |

## IB SUBJECT GROUP TWO: LANGUAGE ACQUISITION

| Internal assessment <br> Individual Oral |  |  |
| :--- | :--- | :--- |
| A conversation with the teacher followed by a discussion on an additional |  | $25 \%$ |
| theme (SL) or one or more additional themes (HL). The SL oral is based on |  |  |
| a visual stimulus, and the HL oral is based on an extract from one of the |  | $25 \%$ |
| literary works studied in the class. |  |  |

## IB SUBJECT GROUP THREE: INDIVIDUALS AND SOCIETIES

## INDIVIDUALS AND SOCIETIES: ECONOMICS (HL/SL), GEOGRAPHY (HL/SL), HISTORY (HL/SL), AND PSYCHOLOGY (HL/SL)

## AIMS

The aims of all subjects in Group Three: Individuals and Societies, are to:

- encourage the systematic and critical study of human experience and behavior; physical, economic, and social environments; and the history and development of social and cultural institutions.
- develop the student's capacity to identify, analyze critically, and evaluate theories, concepts, and arguments about the nature and activities of the individual and society.
- enable the student to collect, describe, and analyze data used in studies of society, to test hypotheses, and to interpret complex data and source material.
- promote the appreciation of the way in which learning is relevant both to the culture in which the student lives, and the culture of other societies.
- develop an awareness in the student that human attitudes and beliefs are widely diverse and that the study of society requires an appreciation of such diversity.
- enable the student to recognize that the content and methodologies of the subjects in Group 3 are contestable and that their study requires the toleration of uncertainty.


## IB SUBJECT GROUP THREE: INDIVIDUALS AND SOCIETIES

## ECONOMICS: HIGHER AND STANDARD LEVELS

## AIMS

The aims of Economics at both HL and SL are to enable students to:

- 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.


## NATURE OF THE SUBJECT \& SYLLABUS OUTLINE

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-while the world's population has unlimited needs and wants, there are limited resources to satisfy these needs. Therefore, choices have to be made. The economics course, at both SL and HL, uses economic theories 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)
- at an international level where countries are becoming increasingly interdependent through international trade and the movement of labor and capital (the global economy)

The DP economics course allows students to explore economic models and theories and apply them, using empirical data, through the examination of the following six real-world issues which are posed as economic questions:

- How do consumers and producers make choices in trying to meet their economic objectives?
- When can markets not satisfy important economic objectives - and does government intervention help?
- Why does economic activity vary over time and why does this matter?
- How do governments manage their economy and how effective are their policies?
- Who are the winners and losers of the integration of the world's economies?
- Why is economic development uneven?

Throughout the examination of these issues, students engage with nine key concepts in economics: scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence, and intervention. Through the course, students will develop the knowledge, skills, values, and attitudes that will encourage them to act responsibly as global citizens.

| Unit 1: Introduction to <br> Economics | Unit 2: <br> Microeconomics | Unit 3: Macroeconomics | Unit 4: The Global <br> Economy |
| :---: | :---: | :--- | :--- |
| What is economics? <br> How do economists <br> approach the world? | Demand, Supply, and <br> competitive market <br> equilibrium* <br> Limitations of models of <br> maximizing behavior* <br> Elasticity* <br> Role of government in <br> microeconomics* <br> Market failure* | Measuring economic <br> activity <br> Aggregate demand and <br> aggregate supply <br> Macroeconomic <br> objectives* <br> Inequality and poverty* <br> Demand management* <br> Supply-side policies | Benefits of international <br> trade* <br> Types of trade <br> protection* |
| Economic integration <br> Exchange rates* <br> Balance of payments* <br> Sustainable <br> development* <br> Measuring development* |  |  |  |

## IB SUBJECT GROUP THREE: INDIVIDUALS AND SOCIETIES

|  |  |  | Barriers to growth and/or <br> development <br> Strategies for growth <br> and/or development |
| :--- | :--- | :--- | :--- |

*Includes HL-only topics and/or calculations

## ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $70 \%$ | $80 \%$ |
| Paper 1: Extended Response Paper (1h15m HL \& SL) <br> Students answer one question from a choice of three, encompassing all <br> syllabus content. | $30 \%$ | $20 \%$ |
| Paper 2: Data Response Paper (1h45m HL \& SL) <br> Students answer one question from a choice of two, encompassing all <br> syllabus content. Includes some quantitative questions. | $40 \%$ | $30 \%$ |
| Paper 3: Policy Paper (HL only; 1h45m) <br> Students answer two compulsory questions, encompassing all syllabus <br> content. Includes both quantitative and qualitative questions. | NA | $30 \%$ |
| Internal assessment: <br> Portfolio of Three Commentaries <br> Students produce a portfolio of three commentaries, based on different <br> units of the syllabus (excluding the introductory unit) and on published <br> extracts from the news media. Each of the three commentaries should use <br> a different key concept as a lens through which to analyze the published <br> extracts. Maximum of 800 words for each commentary. | $30 \%$ | $20 \%$ |

## IB SUBJECT GROUP THREE: INDIVIDUALS AND SOCIETIES

## GEOGRAPHY: HIGHER AND STANDARD LEVELS

## AIMS

The aims of the Geography syllabus at SL and HL are to enable students to:

- develop a dynamic understanding of the interrelationships between people, places, spaces, and the environment at different scales.
- develop a critical awareness and consider complexity thinking in the context of the nexus of geographic issues, including:
- acquiring an in-depth understanding of how geographic issues, or wicked problems, have been shaped by powerful human and physical processes.
- synthesizing diverse geographic knowledge in order to form viewpoints about how these issues could be resolved.
- understand and evaluate the need for planning and sustainable development through the management of resources at varying scales.


## NATURE OF THE SUBJECT \& SYLLABUS OUTLINE

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. It also investigates the way in which people adapt and respond to change, and evaluates the actual and possible management strategies associated with such change.

Students engage with the subject through six key concepts: scale, spatial interaction, place, process, power, and possibility. Through the course, students refine seven essential skills, which are integrated throughout the whole syllabus:

- Locate and differentiate elements of the Earth's surface
- Interpret, analyze, and, when appropriate, construct tables, graphs, diagrams, cartographic material, and images
- Undertake statistical calculations to show patterns and summarize information
- Research, process, and interpret data and information
- Collect and select relevant geographic information
- Evaluate sources of geographic information
- Produce written material (including essays, reports, and investigations)

Distinction between HL and SL: students in both SL and HL study the core material (Part two below), while students at HL study core extension topics. In addition, students at HL study three of the seven optional themes from Part one, while students at SL study two.

| Part one: Geographic Themes <br> 7 Options: 2 at SL; 3 at HL | Part two: SL/HL Core <br> Geographic Perspectives-global <br> change | Part two HL core extension <br> Geographic Perspectives-global <br> interactions |
| :--- | :--- | :--- |
| Freshwater-drainage basins <br> Oceans and coastal margins | Population distribution-changing <br> population <br> Extreme environments | Power, places, and networks <br> Global climate-vulnerability and <br> resilience |
| Human development and diversity <br> Global risks and resilience |  |  |
| Food and health | Global resource consumption and <br> security |  |
| Urban environments |  |  |

## IB SUBJECT GROUP THREE: INDIVIDUALS AND SOCIETIES

ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :---: | :---: | :---: |
| External assessment | 75\% | 80\% |
| Paper 1: Geographic Themes (1h30m SL; 2h15m HL) <br> Students answer questions on the course options. Two options at SL; Three options at HL. | 35\% | 35\% |
| Paper 2: Geographic perspectives-global change (1h15m HL \& SL) Students answer a range of short answer and extended response questions based on material from the core. | 40\% | 25\% |
| Paper 3: Geographic perspectives—global interactions (HL only; 1h) Students answer extended response questions based on each HL core extension unit. | NA | 20\% |
| Internal assessment: <br> Fieldwork Written Report Students investigate a fieldwork question based on a topic from the syllabus and produce a report showing information collection and analysis with evaluation. | 25\% | 20\% |

## IB SUBJECT GROUP THREE: INDIVIDUALS AND SOCIETIES

## HISTORY: HIGHER AND STANDARD LEVELS

## AIMS

The aims of the History course at SL and HL are to:

- develop and understanding of, and continuing interest in, the past.
- encourage students to engage with multiple perspectives and to appreciate the complex nature of historical concepts, issues, events. and developments.
- promote international-mindedness through the study of history from more than one region of the world.
- develop an understanding of history as a discipline and to develop historical consciousness, including a sense of chronology and context, and an understanding of different historical perspectives.
- develop key historical skills, including engaging effectively with sources.
- increase students' understanding of themselves and of contemporary society by encouraging reflection on the past.


## NATURE OF THE SUBJECT \& SYLLABUS OUTLINE

History is a dynamic, contested, evidence-based discipline that involves an exciting engagement with the past. History is an exploratory subject that fosters a sense of inquiry. It is also an interpretive discipline, allowing opportunity for engagement with multiple perspectives and a plurality of opinions. Studying history develops an understanding of the past, which leads to a deeper understanding of the nature of humans and of the world today.

Six key concepts are prominent throughout the DP history course: change, continuity, causation, consequence, perspectives, and significance.

At both HL and SL, students study one prescribed subject from a choice of five and two world history topics from a choice of twelve. In addition, students at HL study one of four possible regions in depth. WIS students study the "Rights and protest" prescribed subject and, at HL, the Americas regional option. World history topics covered relate to twentieth century history, for example:

| World History Topics | History of the Americas |
| :--- | :--- |
| Authoritarian states (20 ${ }^{\text {th }}$ century) | The Second World War and the Americas (1922-1945) |
| The Cold War: Superpower tensions and rivalries (20 |  |
| th <br> century) | The Cold War and the Americas (1945-1981) <br> Civil Rights and social movements in the Americas <br> post-1945 |

ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $75 \%$ | $80 \%$ |
| Paper 1: Source-based paper (1h HL \& SL) <br> Students answer four structured questions on one prescribed subject. | $30 \%$ | $20 \%$ |
| Paper 2: Essay paper-world history topics (1h30m HL \& SL) <br> Students answer two essay questions on two different topics. | $45 \%$ | $25 \%$ |
| Paper 3: Essay paper-regional option (HL only; 2h30m) <br> Students answer three essay questions on the selected region. | NA | $35 \%$ |
| Internal assessment: <br> Historical investigation <br> Students complete a historical investigation into a topic of their choice. | $25 \%$ | $20 \%$ |

## IB SUBJECT GROUP THREE: INDIVIDUALS AND SOCIETIES

## PSYCHOLOGY: HIGHER AND STANDARD LEVELS

The aims of the Psychology course at SL and at HL are to:

- develop an understanding of the biological, cognitive, and sociocultural factors affecting mental processes and behavior, and to apply that understanding to at least one area of study.
- understand diverse methods of inquiry.
- understand the importance of ethical practice in psychological research in general and observe ethical practice in their own inquiries.
- ensure that ethical practices are upheld in all psychological inquiry and discussion.
- develop an awareness of how psychological research can be applied to address real-world problems and promote positive change.


## NATURE OF THE SUBJECTS \& SYLLABUS OUTLINE

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

Distinction between HL and SL: students at both HL and SL study three core approaches to understanding behavior: the biological, cognitive, and sociocultural approaches. In addition, students at HL study extensions to each of the core approaches as well as more in-depth examination of research methods. Students at SL study one of the four options, whereas students at HL study two.

| Core (HL \& SL, with further extensions at HL) | Options (2 at HL, 1 at SL) |
| :--- | :--- |
| Biological approach to understanding behavior | Abnormal psychology |
| Cognitive approach to understanding behavior | Developmental psychology |
| Sociocultural approach to understanding behavior | Health psychology |
| Approaches to researching behavior | Psychology of human relationships |

ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $75 \%$ | $80 \%$ |
| Paper 1: Core Approaches (2h HL \& SL) <br> Students answer three short answer questions on the core approaches <br> and one long answer question from a choice of three. | $50 \%$ | $40 \%$ |
| Paper 2: Options (1h SL; 2h HL) <br> Students answer long answer questions on the options (one question at <br> SL, two at HL). | $25 \%$ | $20 \%$ |
| Paper 3: Research Methods (HL only; 1h) <br> Students answer three short-answer questions on approaches to research <br> based on a stimulus. | NA | $20 \%$ |
| Internal assessment: <br> Experimental Study <br> A report on a replication of an experimental study undertaken by the <br> student. | $25 \%$ | $20 \%$ |

# SCIENCES: BIOLOGY (HL/SL), CHEMISTRY (HL/SL), COMPUTER SCIENCE (HL/SL), DESIGN TECHNOLOGY (HL/SL), ENVIRONMENTAL SYSTEMS AND SOCIETIES (SL ONLY), \& PHYSICS (HL/SL) 

## BIOLOGY, CHEMISTRY, AND PHYSICS: HIGHER AND STANDARD LEVELS

Within Group Four, the lab sciences of Biology, Chemistry, and Physics share a common set of aims, syllabus structure, and assessment model.

## AIMS (Biology, Chemistry, Physics)

Through studying Biology, Chemistry or Physics, students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes these subjects.
The aims enable students, through the overarching theme of the Nature of Science, to:

- appreciate scientific study and creativity within a global context through stimulating and challenging opportunities.
- acquire a body of knowledge, methods, and techniques that characterize science and technology.
- apply and use a body of knowledge, methods, and techniques that characterize science and technology.
- develop an ability to analyze, evaluate, and synthesize 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 including the use of current technologies.
- develop and apply 21st century 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.
- develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.


## SYLLABUS OUTLINE

In each subject, students and both HL and SL learn the core topics, and HL students also learn the additional higher level content (see below). Students at both HL and SL also study one of the four options, although at HL the options include additional sub-topics for greater depth.

In addition to the topics summarized below, students engage in a practical scheme of work, including practical activities such as labs ( $20 \mathrm{~h} \mathrm{SL} / 40 \mathrm{~h} \mathrm{HL}$ ), the individual investigation (IA), and the interdisciplinary and collaborative Group Four project.

| Area | Biology | Chemistry | Physics |
| :--- | :--- | :--- | :--- |
|  | Cell biology | Stoichiometric relationships | Measurements and |
|  | Molecular biology | Atomic structure | uncertainties |
|  | Genetics | Periodicity | Mechanics |
|  | Ecology | Chemical bonding and | Thermal physics |
| Core | Evolution and biodiversity | Wuman physiology | Energetics/thermochemistry <br> Chemical kinetics |
|  |  | Electricity and magnetism <br> Acids and bases <br> Redox processes <br> Organic chemistry motion and gravitation |  |
|  |  | Atomic, nuclear and particle <br> Measurement and data <br> processing | Energy production |

## IB SUBJECT GROUP FOUR: SCIENCES

| Additional <br> Higher Level | Nucleic acids <br> Metabolism, cell respiration <br> and photosynthesis <br> Plant biology <br> Genetics and evolution <br> Animal physiology | Atomic structure <br> The periodic table-the transition metals <br> Chemical bonding and structure <br> Energetics/thermochemistry <br> Chemical kinetics <br> Equilibrium <br> Acids and bases <br> Redox processes <br> Organic chemistry <br> Measurement and analysis | Wave phenomena <br> Fields <br> Electromagnetic induction <br> Quantum and nuclear physics |
| :---: | :---: | :---: | :---: |
| Options | Neurobiology and behavior Biotechnology and bioinformatics Ecology and conservation Human physiology | Materials <br> Biochemistry <br> Energy <br> Medicinal chemistry | Relativity <br> Engineering physics <br> Imaging <br> Astrophysics |

## ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $80 \%$ | $80 \%$ |
| Paper 1: Multiple Choice Questions (45m SL; 1h HL) <br> Students answer multiple choice questions on core, and AHL material at <br> HL (30 questions SL; 40 questions HL). | $20 \%$ | $20 \%$ |
| Paper 2: Short-answer and extended response (1h15m SL; 2h15m HL) <br> Students answer questions on the core and AHL material at HL. | $40 \%$ | $36 \%$ |
| Paper 3: Data-based, short-answer, and extended response (1h SL; 1h15m HL) <br> Students answer questions on core, AHL (at HL), and option material. | $20 \%$ | $24 \%$ |
| Internal assessment: <br> Individual Investigation <br> A report on one scientific investigation on a topic commensurate with the <br> level of the course of study. | $20 \%$ | $20 \%$ |

## IB SUBJECT GROUP FOUR: SCIENCES

## COMPUTER SCIENCE: HIGHER AND STANDARD LEVELS

## AIMS

DP Computer Science students should become aware of how computer scientists work and communicate with each other and with other stakeholders in the successful development and implementation of IT solutions. While the methodology used to solve problems in computer science may take a wide variety of forms, the group 4 computer science course emphasizes the need for both a theoretical and practical approach.

It is in this context that the DP computer science course should aim to:

- provide opportunities for study and creativity within a global context that will stimulate and challenge students developing the skills necessary for independent and lifelong learning.
- provide a body of knowledge, methods, and techniques that characterize computer science.
- enable students to apply and use a body of knowledge, methods, and techniques that characterize computer science.
- demonstrate initiative in applying thinking skills critically to identify and resolve complex problems.
- engender an awareness of the need for, and the value of, effective collaboration and communication in resolving complex problems.
- develop logical and critical thinking as well as experimental, investigative, and problem-solving skills.
- develop and apply the students' information and communication technology skills in the study of computer science to communicate information confidently and effectively.
- raise awareness of moral, ethical, social, economic, and environmental implications of using science and technology.
- develop an appreciation of the possibilities and limitations associated with continued developments in IT systems and computer science.
- encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.


## SYLLABUS OUTLINE

Students at both HL and SL study four core topics, and students at HL study an additional three topics and an annually issued case study as part of the HL extension. Students at both levels study one of four possible options, although at HL the options include additional sub-topics.

| SL/HL Core | HL Extension | Options |
| :--- | :--- | :--- |
| System fundamentals | Abstract data structures | Databases |
| Computer organization | Resource management | Modelling and simulation |
| Networks | Control <br> Computational thinking, problem- <br> Colving and programming | Web science <br> IB) |

## ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $70 \%$ | $80 \%$ |
| Paper 1: Core (1h30m SL; 2h10m HL) | $45 \%$ | $40 \%$ |
| Paper 2: Option (1h SL; 1h20m HL) | $25 \%$ | $20 \%$ |
| Paper 3: Case Study (HL only; 1h) | NA | $20 \%$ |
| Internal assessment: <br> Solution <br> Students develop a solution and product for a specified problem or <br> unanswered question of their choosing. | $30 \%$ | $20 \%$ |

## IB SUBJECT GROUP FOUR: SCIENCES

## DESIGN TECHNOLOGY: HIGHER AND STANDARD LEVELS

## AIMS

Through studying Design Technology, students should become aware of how designers work and communicate with each other. While the design methodology may take on a wide variety of forms, it is the emphasis on a practical approach through design work that characterizes this subject.

The aims of the subject state in a general way what the teacher may expect to teach or do, and what a student may expect to experience or learn.

The aims enable students, through the overarching theme of the nature of design, to develop:

- a sense of curiosity as they acquire the skills necessary for independent and lifelong learning and action through inquiry into the technological world around them.
- an ability to explore concepts, ideas, and issues with personal, local. and global significance to acquire indepth knowledge and understanding of design and technology.
- initiative in applying thinking skills critically and creatively to identify and resolve complex social and technological problems through reasoned ethical decision-making.
- an ability to understand and express ideas confidently and creatively using a variety of communication techniques through collaboration with others.
- a propensity to act with integrity and honesty, and take responsibility for their own actions in designing technological solutions to problems.
- an understanding and appreciation of cultures in terms of global technological development, seeking and evaluating a range of perspectives.
- a willingness to approach unfamiliar situations in an informed manner and explore new roles, ideas, and strategies so they can articulate and defend their proposals with confidence.
- an understanding of the contribution of design and technology to the promotion of intellectual, physical, and emotional balance and the achievement of personal and social well-being.
- empathy, compassion and respect for the needs and feelings of others in order to make a positive difference to the lives of others and to the environment.
- skills that enable them to reflect on the impacts of design and technology on society and the environment in order to develop their own learning and enhance solutions to technological problems.


## SYLLABUS OUTLINE

| Core | Additional Higher Level | Practical Work |
| :--- | :--- | :--- |
| Human factors and ergonomics | User-centered design (UCD) | Design project |
| Resource management and | Sustainability | Group 4 project |
| $\quad$ sustainable production | Innovation and markets | Teacher-directed activities |
| Modelling | Commercial production |  |
| Final production |  |  |
| Innovation and design |  |  |
| Classic design |  |  |

## ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $60 \%$ | $60 \%$ |
| Paper 1: Multiple Choice Questions (45m SL; 1h HL) <br> Students answer multiple choice questions on core, and AHL material at <br> HL (30 questions SL; 40 questions HL). | $30 \%$ | $20 \%$ |

## IB SUBJECT GROUP FOUR: SCIENCES

| Paper 2: Data-based, short-answer, and extended response (1h30m HL/SL) <br> Students answer questions on the core material. | $30 \%$ | $20 \%$ |
| :--- | :---: | :---: |
| Paper 3: Extended response (HL only; 1h30m) <br> Students answer questions on HL extension material. | NA | $20 \%$ |
| Internal assessment: <br> Individual Design Project | $40 \%$ | $40 \%$ |

## IB SUBJECT GROUP FOUR: SCIENCES

## ENVIRONMENTAL SYSTEMS AND SOCIETIES: STANDARD LEVEL

Environmental Systems and Societies is offered only at the Standard Level.

## AIMS

The systems approach provides the core methodology of this course. It is amplified by other sources, such as economic, historical, cultural, socio-political, and scientific, to provide a holistic perspective on environmental issues. The aims of the ESS course are to enable students to:

- acquire the knowledge and understandings of environmental systems at a variety of scales.
- apply the knowledge, methodologies, and skills to analyze environmental systems and issues at a variety of scales.
- appreciate the dynamic interconnectedness between environmental systems and societies.
- value the combination of personal, local, and global perspectives in making informed decisions and taking responsible actions on environmental issues.
- be critically aware that resources are finite, and that these could be inequitably distributed and exploited, and that management of these inequities is the key to sustainability.
- develop awareness of the diversity of environmental value systems.
- develop critical awareness that environmental problems are caused and solved by decisions made by individuals and societies that are based on different areas of knowledge.
- engage with the controversies that surround a variety of environmental issues.
- create innovative solutions to environmental issues by engaging actively in local and global contexts.


## SYLLABUS OUTLINE - CORE

Topic 1: Foundations of environmental systems and societies
Topic 2: Ecosystems and ecology
Topic 3: Biodiversity and conservation
Topic 4: Water and aquatic food production systems and societies
Topic 5: Soil systems and terrestrial food production systems and societies
Topic 6: Atmospheric systems and societies
Topic 7: Climate change and energy production
Topic 8: Human systems and resource use

ASSESSMENT OUTLINE

| Assessment Component | Weight |
| :--- | :---: |
| External assessment | $75 \%$ |
| Paper 1: Case Study (1h) | $25 \%$ |
| Paper 2: Short answer \& Structured essays (2h) | $50 \%$ |
| Internal assessment: <br> Individual investigation | $25 \%$ |

## IB SUBJECT GROUP FIVE: MATHEMATICS

## MATHEMATICS: ANALYSIS AND APPROACHES (HL/SL); APPLICATIONS AND INTERPRETATION (HL/SL)

## AIMS

The aims of all DP Mathematics courses are to enable students to:

- 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.
- 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.


## DIFFERENCES BETWEEN THE SUBJECTS

The structure of the DP Mathematics courses differentiates between different ways in which students may wish to engage with mathematics. Both subjects cover material from five central topics: number and algebra, functions, geometry and trigonometry, statistics and probability, and calculus, and both subjects engage with twelve key concepts: approximation, change, equivalence, generalization, modelling, patterns, quantity, relationships, representation, spaces, systems, and validity. The differences between the subjects consist in the relative emphasis each places on each of the five topics and the depth in which each is explored.

Analysis and Approaches: This course is designed for students who wish to study mathematics as a subject in its own right or to pursue their interests in areas related to mathematics. It is for students who enjoy developing their mathematics to become fluent in the construction of mathematical arguments and develop strong skills in mathematical thinking. They will also be fascinated by exploring real and abstract applications of these ideas, with and without technology. Students who take Mathematics: Analysis and Approaches will be those who enjoy the thrill of mathematical problem-solving and generalization.

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 preuniversity 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.

## IB SUBJECT GROUP FIVE: MATHEMATICS

Applications and Interpretation: This course is designed for students who wish to gain understanding and competence in how mathematics relates to the real world and to other subjects. It is for students who are interested in developing their mathematics for describing our world and solving practical problems. They will also be interested in harnessing the power of technology alongside exploring mathematical models. Students who take Mathematics: Applications and Interpretation will be those who enjoy mathematics best when seen in a practical context.

This course recognizes the increasing role mathematics and technology play in a diverse range of fields. It emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modelling. 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.

## SYLLABUS OUTLINE

| Topic | Suggested Teaching Hours |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Analysis |  | Applications |  |
|  | SL | HL | SL | HL |
| Number and Algebra | 19 | 39 | 16 | 29 |
| Functions | 21 | 32 | 31 | 42 |
| Geometry and Trigonometry | 25 | 51 | 18 | 46 |
| Statistics and Probability | 27 | 33 | 36 | 52 |
| Calculus | 28 | 55 | 19 | 41 |
| The toolkit and Mathematical exploration (IA) <br> Investigative, problem-solving and modeling skills development leading to <br> an individual exploration. The exploration is a piece of written work that <br> involves investigating an area of mathematics. | 30 | 30 | 30 | 30 |
| Total teaching hours |  |  |  |  |

## ASSESSMENT OUTLINE

Both the Analysis and approaches course and the Applications and interpretation course share a common assessment structure.

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $80 \%$ | $80 \%$ |
| Paper 1 (1h30m SL; 2 HL) <br> No calculator for Math Analysis SL \& HL <br> Calculator required for Math Applications SL \& HL | $40 \%$ | $30 \%$ |
| Paper 2 (1h30m SL; 2h HL) <br> Calculator required for all subjects | $40 \%$ | $30 \%$ |
| Paper 3 (HL only; 1h) <br> Calculator required for all subjects | NA | $20 \%$ |
| Internal assessment: <br> Mathematical exploration <br> A piece of written work that involves investigating an area of mathematics. | $20 \%$ | $20 \%$ |

## IB SUBJECT GROUP SIX: THE ARTS

## THE ARTS: MUSIC (HL/SL), THEATRE (HL/SL), AND VISUAL ARTS (HL/SL)

## AIMS

The aims of all subjects in Group Six, The Arts, are to enable students to:

- explore the diversity of the arts across time, cultures, and contexts.
- develop as imaginative and skilled creators and collaborators.
- express ideas creatively and with competence in forms appropriate to the artistic discipline.
- critically reflect on the process of creating and experiencing the arts.
- develop as informed, perceptive, and analytical practitioners.
- enjoy lifelong engagement with the arts.


## IB SUBJECT GROUP SIX: THE ARTS

## MUSIC: HIGHER AND STANDARD LEVELS

## AIMS

In addition to the general aims of the arts subjects, the aims of the Music course are to enable students to:

- explore a range of musical contexts and make links to, and between, different musical practices, conventions, and forms of expression.
- acquire, develop, and experiment with musical competencies through a range of musical practices, conventions, and forms of expression, both individually and in collaboration with others.
- evaluate and develop critical perspectives on their own music and the work of others.


## NATURE OF THE SUBJECT \& SYLLABUS OUTLINE

Music is an essential part of the human experience and a unique mode of creativity, expression, and communication. Music is both functional and meaningful, and its vitality and complexity enriches our lives. Though music is rooted in specific societies and cultures, it also transcends-and often connects-them. Music not only offers a way of understanding the world, but also a means by which we can express and share our understanding of it with others.

The study of music encourages inquiry into creative practices and performance processes. Music study develops listening, creative, and analytical skills, as well as encouraging cultural understanding and internationalmindedness. In this course, students and teachers engage in a journey of imagination and discovery through partnership and collaboration. Students develop and affirm their unique musical identities while expanding and refining their musicianship.

The course includes three main parts that are common to both the HL and SL courses:

- Exploring music in context

When 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 four prescribed 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

When presenting music, students learn to practice and prepare finished pieces that will be performed or presented 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 HL course also involves an additional area of study and assessment task:

## - The contemporary music maker

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. For the HL component, students plan and collaboratively create a project that draws on the competencies, skills, and processes in all of the musical roles of the music course, and is inspired by real-life practices of music-making.

## IB SUBJECT GROUP SIX: THE ARTS

## ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $70 \%$ | $80 \%$ |
| Exploring music in context <br> Portfolio of student work including written work and practical exercises <br> (creating and performing) | $30 \%$ | $20 \%$ |
| Presenting music <br> Collection of works including research, composition/improvisation, and <br> performance | $40 \%$ | $30 \%$ |
| Contemporary music-maker <br> Multimedia presentation documenting a collaborative project | NA | $30 \%$ |
| Internal assessment: <br> Experimenting with music <br> Experimentation report showing evidence of musical processes of creating <br> and performing | $30 \%$ | $20 \%$ |

## IB SUBJECT GROUP SIX: THE ARTS

## THEATRE: HIGHER AND STANDARD LEVELS

## AIMS

In addition to the general aims of the arts subjects, the aims of the Theatre course are to enable students to:

- explore theatre in a variety of contexts and understand how these contexts inform practice (theatre in context).
- understand and engage in the processes of transforming ideas into action (theatre processes).
- develop and apply theatre production, presentation, and performance skills, working both independently and collaboratively (presenting theatre).
- understand and appreciate the relationship between theory and practice (HL only).


## NATURE OF THE SUBJECT \& SYLLABUS OUTLINE

Theatre is a dynamic, collaborative, and live art form. The IB Diploma Program Theatre course is a multifaceted theatre-making course of study. It allows students to make theatre as creators, designers, directors, and performers. It emphasizes the importance of working both individually and collaboratively as part of an ensemble. It offers the opportunity to engage actively in the creative process, transforming ideas into action as inquisitive and productive artists.

The theatre syllabus at SL and HL consists of three equal, interrelated areas:

- Theatre in context

This area of the syllabus addresses the students' understanding that theatre does not occur in a vacuum.
Students examine the personal, theoretical, and cultural contexts that inform theatre-making and the ways in which these affect and influence creating, designing, directing, performing, and spectating.
Through the theatre in context area, students will:

- understand the contexts that influence, inform, and inspire their own work as theatre-makers and that determine the theatre that they choose to study.
- experience practically and critically appreciate the theoretical contexts that inform different world theatre practices.
- be informed about the wider world of theatre and begin to understand and appreciate the many cultural contexts within which theatre is created.
- Theatre processes

This area of the syllabus addresses the students' exploration of the skills, techniques, and processes involved in theatre-making. Students reflect on their own creative processes and skills acquisition as well as gaining a practical understanding of the processes of others: creators, designers, directors, and performers. Through the theatre processes area, students will:

- be informed about the various processes involved in making theatre from the perspectives of the specialist theatre roles (creator, designer, director, and performer).
- observe and reflect on processes used in different theatre traditions and performance practices.
- develop a range of skills required to make and participate in theatre.
- Presenting theatre

This area of the syllabus addresses the staging and presentation of theatre as well as the presentation of ideas, research, and discoveries through diverse modes of presentation, both practical and written.
Students consider the impact theatre can have on the spectator. They are encouraged to think about their own artistic intentions as creators, designers, directors, and performers and the impact they wish to have on an audience. Through the presenting theatre area, students will:

- apply their practical theatre skills, either individual or collaboratively, through a range of formats.
- present their ideas about theatre and take part in theatre performances.
- understand and appreciate how artistic choices can impact on an audience.


## IB SUBJECT GROUP SIX: THE ARTS

## ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $65 \%$ | $75 \%$ |
| Director's notebook <br> Students choose a published play text and develop ideas regarding how <br> the entire play could be staged for an audience | $35 \%$ | $20 \%$ |
| Research presentation <br> Students plan and deliver and individual presentation to their peers in <br> which they present and physically demonstrate their research into a <br> convention of a theatre tradition | $30 \%$ | $20 \%$ |
| Solo theatre piece <br> Students research a theatre theorist, identify an aspect of their theory, <br> and create and present a solo theatre piece based on this aspect of theory | NA | $35 \%$ |
| Internal assessment: <br> Collaborative project <br> Students collaboratively create and present an original piece of theatre for <br> and to a specified target audience, created from a starting point of their <br> choice | $35 \%$ | $25 \%$ |

## IB SUBJECT GROUP SIX: THE ARTS

## VISUAL ARTS: HIGHER AND STANDARD LEVELS

## AIMS

In addition to the general aims of the arts subjects, the aims of the Visual Arts course are to enable students to:

- 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.


## NATURE OF THE SUBJECT \& SYLLABUS OUTLINE

The IB Diploma Program 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 problemsolving and divergent thinking skills, 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.

The visual arts syllabus at SL and HL consists of three equal, interrelated areas:

- Visual arts in context:

The visual arts in context part of the syllabus provides a lens through which students are encouraged to explore perspectives, theories, and cultures that inform and influence visual arts practice. Students should be able to research, understand, and appreciate a variety of contexts and traditions and be able to identify links between them. Through the visual arts in context area, students will:

- be informed about the wider world of visual arts and they will begin to understand and appreciate the cultural contexts within which they produce their own works.
- observe the conventions and techniques of the artworks they investigate, thinking critically and experimenting with techniques, and identifying possible uses within their own art-making practice.
- investigate work from a variety of cultural contexts and develop increasingly sophisticated, informed responses to work they have seen and experienced.
- Visual arts methods

The visual arts methods part of the syllabus addresses ways of making artwork through the exploration and acquisition of skills, techniques, and processes, and through engagement with a variety of media and methods. Through the visual arts methods area, students will:

- understand and appreciate that a diverse range of media, processes, techniques, and skills are required in the making of visual arts, and how and why these have evolved.
- engage with the work of others in order to understand the complexities associated with different art-making methods and use this inquiry to inspire their own experimentation and art-making practice.
- understand how a body of work can communicate meaning and purpose for different audiences.
- Communicating visual arts

The communicating visual arts part of the syllabus involves students investigating, understanding, and applying the processes involved in selecting work for exhibition and public display. It engages students in making decisions about the selection of their own work. Through the communicating visual arts area, students will:

- understand the many ways in which visual arts can communicate and appreciate that presentation constructs meaning and may influence the way in which individual works are valued and understood.


## IB SUBJECT GROUP SIX: THE ARTS

- produce a body of artwork through a process of reflection and evaluation and select artworks for exhibition, articulating the reasoning behind their choices and identifying the ways in which selected works are connected.
- explore the role of the curator; acknowledging that the concept of an exhibition is wide ranging and encompasses many variables, but most importantly, the potential impact on audiences and viewers.


## ASSESSMENT OUTLINE

| Assessment Component | SL Weight | HL Weight |
| :--- | :---: | :---: |
| External assessment | $60 \%$ | $60 \%$ |
| Comparative study <br> Students analyze and compare different artworks by different artists, <br> including differing cultural contexts. Students examine and compare at <br> least three artworks, at least two of which are by different artists. |  |  |
| At HL, students also analyze the extent to which their work and practices <br> have been influences by the art and artists examined. | $20 \%$ | $20 \%$ |
| Process portfolio <br> Students submit carefully selected materials which evidence their <br> experimentation, exploration, manipulation, and refinement of a variety <br> of visual arts activities during the two-year course. | $40 \%$ | $40 \%$ |
| At SL, students' work must be in at least two art-making forms, whereas at <br> HL, students' work must be in at least three forms. |  |  |
| Internal assessment: |  |  |
| Exhibition |  |  |
| Students curate and submit 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. |  |  |\(\quad 40 \% ~ 40 \% ~\left(\begin{array}{ll}At SL, students submit 4-7 artworks, whereas at HL students submit 8-11 <br>

artworks.\end{array}\right.\)

## THE DIPLOMA PROGRAM CORE

## THE CORE: THEORY OF KNOWLEDGE, THE EXTENDED ESSAY, AND CREATIVITY, ACTIVITY, SERVICE

The DP Core is a set of three elements that all Diploma Program students must complete; it is a common experience that unites the subject groups thematically and provides a foundation for all learning in the DP, regardless of a student's subject choices.

The core elements are requirements for students pursuing the full Diploma Program. The IB does not require completion of the core for course certificate students. However, students at WIS who pursue a course certificate typically remain enrolled in the Theory of Knowledge course as it provides valuable development of critical thinking skills. Course certificate students must also engage with an individualized CAS program, but they are not expected to complete a CAS project. Students pursuing course certificates are not required to complete an Extended Essay, and their TOK coursework is typically modified as they do not submit work to the IB.

## THEORY OF KNOWLEDGE

The Theory of Knowledge (TOK) course allows students to explore and reflect on the nature of knowledge and the process of knowing. It encourages critical questioning and deepens students' learning in their DP subjects by prompting them to dig deeper into the foundations of claims to knowledge and expertise, rather than simply taking them on authority.

Specifically, the aims of the TOK course are:

- to encourage students to reflect on the central question, "How do we know that?", and to recognize the value of asking that question.
- to expose students to ambiguity, uncertainty, and questions with multiple plausible answers.
- to equip students to effectively navigate and make sense of the world, and help prepare them to encounter novel and complex situations.
- to encourage students to be more aware of their own perspectives and to reflect critically on their own beliefs and assumptions.
- to engage students with multiple perspectives, foster open-mindedness, and develop intercultural understanding.
- to encourage students to make connections between academic disciplines by exploring underlying concepts and by identifying similarities and differences in the methods of inquiry used in different areas of knowledge.
- to prompt students to consider the importance of values, responsibilities, and ethical concerns relating to the production, acquisition, application, and communication of knowledge.

The TOK course encourages students to examine 12 prominent concepts: evidence, certainty, truth, interpretation, power, justification, explanation, objectivity, perspectives, culture, values, and responsibility. The key tool for examination of these concepts is the knowledge question, which is a contestable question about knowledge itself, such as "What counts as good evidence for a claim?" or "Are some types of knowledge less open to interpretation than others?"

Student inquiry in TOK is focused on three deeply interconnected parts:

- The core theme-Knowledge and the knower: this theme encourages students to reflect on themselves as knowers and thinkers, and to consider the different communities of knowers to which we belong
- Optional themes: this element provides an opportunity to take a more in-depth look at two themes of particular interest to teachers and students. The given themes all have a significant impact on the world today and play a key role in shaping people's perspectives and identities. Teachers select two optional


## THE DIPLOMA PROGRAM CORE

themes from a choice of five: knowledge and technology; knowledge and language; knowledge and politics; knowledge and religion; and knowledge and indigenous societies.

- Areas of knowledge: the areas of knowledge (AOK) are specific branches of knowledge, each of which can be seen to have a distinct nature and sometimes use different methods of gaining knowledge. In TOK, students explore five compulsory areas of knowledge: history; the human sciences; the natural sciences; mathematics; and the arts.

The exploration of these parts of the TOK curriculum is guided by knowledge questions relating to a knowledge framework of four elements: scope, perspectives, methods and tools, and ethics. Having these common elements run throughout the different parts of the curriculum also helps to unify the course and helps students to make effective connections and comparisons across the different themes and areas of knowledge.

## ASSESSMENT OUTLINE

There are two assessment tasks in the TOK course.

- The TOK exhibition assesses the ability of the student to show how TOK manifests in the world around us. Students select a knowledge question from a list prescribed by the IB and explore it in connection to three curated objects of the student's choosing. The exhibition is an internal assessment component, and it counts for $33 \%$ of the student's grade.
- The TOK essay engages students in a more formal and sustained piece of writing in response to a title focused on the areas of knowledge. The essay is an external assessment component marked by IB examiners and it counts for $67 \%$ of the student's grade. The essay may be a maximum of 1,600 words and must be written on one of the six prescribed titles issues by the IB for each examination session.


## THE EXTENDED ESSAY

The Extended Essay (EE) is a long-form research paper in a particular subject offered as part of the IB Diploma Program. Students may choose to write their essay in any specific subject offered by the IB, or use an interdisciplinary approach. While the EE is a requirement for all Diploma candidates, it is also an opportunity to take a deep dive and learn about a topic of interest. Completing an EE demonstrates college-level research and writing skills and allows students to gain familiarity with the methods of a particular discipline.

The EE should correspond to about 40 hours of work. Though the EE is largely an independent task, the school pairs students with a faculty supervisor who provides guidance and structure and ensures that students stay on track for timely completion of their essay. The maximum word count for an EE is 4,000 words, although many essays are successful at shorter lengths. Students also must complete a set of three reflections totaling 500 words.

WIS students begin the process of selecting their EE topic in the winter of their Grade 11 year. They are paired with a supervisor around the end of the first semester. During the Spring of the Grade 11 year, students are encouraged to complete the bulk of their research and begin to outline their essays. Students are required to complete a draft of the essay by the time they return to school to start the Grade 12 year. Revision of the draft and final completion of the essay should take place by December of Grade 12.

A more detailed discussion of the Extended Essay process and criteria can be found in the WIS EE Handbook and on the OnCampus course page dedicated to the EE.

## THE DIPLOMA PROGRAM CORE

## CREATIVITY, ACTIVITY, SERVICE

Creativity, Activity, Service (CAS) embodies a holistic approach to learning and individual growth that goes beyond traditional academic skills and pushes students to act. Students craft individualized programs encompassing a range of experiences in each of the three strands of CAS (Creativity, Activity, and Service), aiming to discover more about themselves and grow in their skills, talents, abilities, and engagements. A CAS program extends over 18 months of the DP and includes at least one CAS project. It is an important opportunity for students to develop a strong sense of personal identity and self-awareness, where students engage in selfreflection and pursue growth to "know their why."

Over the course of their programs, students must achieve each of the 7 CAS learning outcomes at least once:

- Identify own strengths and develop areas for growth
- Demonstrate that challenges have been undertaken, developing new skills in the process
- Demonstrate how to initiate and plan a CAS experience
- Show commitment to and perseverance in CAS experiences
- Demonstrate the skills and recognize the benefits of working collaboratively
- Demonstrate engagement with issues of global significance
- Recognize and consider the ethics of choices and actions

All CAS programs are unique and specific to the individual; however, all students must engage with each of the three strands of CAS throughout their 18-month program. The IB defines the strands as follows:

- Creativity: "exploring and extending ideas leading to an original or interpretive product or performance."
- Activity: "physical exertion contributing to a healthy lifestyle."
- Service: "collaborative and reciprocal engagement with the community in response to an authentic need."

Students must also complete at least one CAS Project, a sustained, collaborative series of experiences engaging one or more strands of CAS and involving more in-depth planning. CAS projects should typically extend over at least one month from planning to completion.

While students' CAS experiences may involve activities within the school such as clubs or athletics, students are generally encouraged to engage with the broader community outside the school, particularly in their service experiences. Importantly, students may not include any work completed as part of their DP studies within their CAS program.

A more detailed overview of WIS's approach to CAS can be found in our CAS Handbook, on the OnCampus course page dedicated to CAS, and on ManageBac, the school's platform for logging CAS experiences and reflections.

## GRADES 11 \& 12 ELECTIVES

## ELECTIVE COURSES DURING THE IB DIPLOMA YEARS

In Grades 11 \& 12, students have the option to take up to one elective each semester. The courses meet twice each eight-day cycle and are assessed according to the WIS grading scale. Some electives courses in arts subjects may be included in students' CAS programs. The following elective courses are offered: Advanced Robotics, Chinese, Design Technology, Instrumental Music, Journalism, Narrative Film Production, Theatre Arts, Visual Arts, Vocal Music, and Yearbook. We strongly recommend that students take at least one elective each year.

In particular, Grade 12 students who risk falling behind in their commitment to CAS should consider choosing visual arts and performing arts to help them fulfill CAS requirements.

Arts Requirement: By the end of Grade 12, all students must have completed four (4) semester courses in the visual or performing arts. At least two-semester courses should have been completed during Grades 9 \& 10 .

## Advanced Robotics (one semester, can be repeated)

In this course, students will work with the LEGO MINDSTORMS Robot Inventor kit to build unique, motorized robots and vehicles and use coding skills to program the robots using the LEGO MINDSTORMS Robot Inventor App. The students will apply their mathematical, scientific, artistic, and critical thinking skills to learn to code and construct a robot that responds to their commands. Then they will bring them to life, one at a time, using the Scratch-based, drag-and-drop coding environment, and complete fun activities and challenging missions. In this course, the students will express and develop their creativity while gaining essential 21st-century STEM skills.

## Chinese (one semester, can be repeated)

In this course, students will continue to advance their Chinese language and cultural knowledge, focusing on communicative skills. Students will work through various exciting topics such as families and communities, beauty and aesthetics, global issues and challenges, interdisciplinary/STEM, contemporary life, communications and media, and career connections. These topics align closely with the advanced placement themes and include related topics and essential questions requiring students to increase their content knowledge and Chinese proficiency level and challenge them to improve their critical thinking skills.

## Design Technology (one semester, can be repeated) - counts towards arts requirement

In this semester-long course, students will continue with or be introduced to basic concepts of product design in order to better express themselves in the design process. These will often focus on design sketching, CAD, prototyping and the design cycle. Students will essentially use the course as a way to pursue an independent study in product design. Students will decide on a problem to solve and design a product that will solve the issue. These will need to be in small form and can be made of wood or 3D printed. Students who are interested in pursuing a design-related field (industrial / product design, architecture, or art) where portfolios are needed for the application process are strongly encouraged to take the course. They may work on their portfolio and bolster aspects of it as their independent study. This is an excellent opportunity to conceive of a product and illustrate a design process with a fully realized product at the end.

## Instrumental Music (one semester, can be repeated) - counts towards arts requirement

Instrumental classes are formed according to level of interest and instrumentation. Orchestral instrumentalists, classical guitarists, and pianists are grouped with students of similar reading and playing skills. Students learn to work together in small ensembles on music of their choice or music given by the teacher. Individual study is also an option for piano players or solo instruments with guidance from the teacher. Students practice and perform standard repertoire for the specific instrumentation of the chamber group. Groups perform a varied repertoire of instrumental music, including types of jazz styles and traditional pieces from the Renaissance through the 20th century. All students are required to perform twice per term in class or with additional opportunity for performance in assemblies, lunchtime concerts, school concerts, and community events. Students will also learn about types of music history including jazz, rock, folk, and music from around the world.

## GRADES 11 \& 12 ELECTIVES

## Journalism (one semester, can be repeated) - counts towards arts requirement

The 11/12 Journalism class gives WIS students a foundation in how to be a reporter and the craft of journalism. Part of class responsibilities is to produce the International Dateline, the student newspaper for WIS. The students publish an online version of the publication. Journalism students are responsible for every element of the paper-from the stories, to the photos and the design. Over the course of the semester, students will learn a variety of styles of journalistic writing, as well as gain exposure to all facets of a journalistic career. The course is deadline driven and reflects the realities of the field of journalism. Students can anticipate a fast-paced, high-energy environment, in which students lead, teach, and coach one another. This course will push students to try new things and experience and consume the media in a variety of ways. Additionally, students will become savvy news consumers through studying why news matters in a democracy, and other journalistic practices such as how to verify sources.
The structure of this course will model a professional news organization where you will learn the fundamentals of journalism and reporting. As such, many lessons will be pulled from the headlines, both historical and current. It is not uncommon that the class will discuss mature subject matter and controversial issues.

## Narrative Film Production (one semester, can be repeated) - counts towards arts requirement

The aim of this course is to introduce students to the fundamentals of filmmaking as well as establish a basic foundation for developing, creating, and producing narrative features. Using motion picture research, study, and scene analysis, students will undergo a collaborative process of group discussions as well as character and story development to devise and direct narrative short films. Some of the units of include: composition, filmmaking shots and camera movement, editing, and audio.

## Theatre Arts (one semester, can be repeated) - counts towards arts requirement

The drama course will introduce students to a broad range of theatre skills encompassed by theatre in the world, theatre in the making, and theatre in production. All drama classes are geared to the exploration from a practical as well as theoretical perspective. Opportunity for advanced work or independent study within the theatre arts is possible with permission of the instructor. While the course will be progressive from year to year, no previous experience or instruction is required at any level.

## Visual Arts (one semester, can be repeated) - counts towards arts requirement

Through the study and performance of choral literature, students will develop and improve their musical literacy, aesthetic awareness, and creative expression. Students will sing from a varied repertoire including jazz, classical and contemporary popular music (rock, pop, R\&B, etc.), show tunes/musical theater, and multilingual folk songs from around the world. Students will learn vocal rehearsal techniques, music theory tailored for singers, methods for reading a vocal score (score study), and good vocal health practices. A strong emphasis is placed on establishing proper choral singing technique, including a focus on harmony and blend through multi-part singing, which will enable students to develop ear-training skills and unlock their full vocal potential. Performances include in-school assemblies, evening concerts, and possible community events. In addition, solo opportunities are available for those who are interested.

## Vocal Music (one semester, can be repeated) - counts towards arts requirement

The choirs sing a varied repertoire of vocal literature, including folk songs from around the world, jazz, a cappella and contemporary music, show tunes and music from musical theatre, as well as traditional pieces from the Renaissance through the 20th century Classical periods. Students will learn vocal and rehearsal techniques, reading on a vocal score (Octavo) and proper vocal health. A strong emphasis is placed on sound choral technique, harmony and blend, which will enable students to develop their vocal potential. Performances include in-school assemblies, evening concerts, and community events.

## Yearbook (full year) - counts towards arts requirement

This course will teach layout design, journalistic writing, formatting techniques, photography, writing strategies, online development and publishing of pages, Adobe Photoshop techniques and more. Assessment will be based on students' ability to design layout, draft and edit articles, write leads/captions/titles, organize photography of events/sports, format/design a theme-based, school-wide publication, and meet deadlines.

