

# HIGH SCHOOL PROGRAM OF STUDIES



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## Welcome

Dear Parents and Students of St. Mary's International School

At St. Mary's International School, in addition to earning a High School Diploma, students also have the opportunity to earn the International Baccalaureate (IB) Diploma.

The High School Program of Studies outlines the courses offered and credit requirements for graduation from St. Mary's International School. Additionally, it provides course descriptions and other information (course length, credit value and prerequisites) to help students make informed and appropriate selections during the January/February course registration process.

Required course selections are automatically made for students. In some courses placement recommendations are provided by faculty. This includes but is not limited to math courses and IB Diploma program courses.

As selection of IB courses is an important two-year commitment, students in Grade 10 begin the course selection process towards the end of the first semester. Over the second semester, students will reflect on their initial interests and work with counselors, the IB coordinator, teachers, and parents to make the best choices for the following school year. Final course selection decisions are made prior to course registration in February and March.

Please be aware that courses at St. Mary's are offered subject to demand and availability within the scheduling and staffing process. Academic requirements for graduation and IB programme configurations are given priority in all scheduling decisions.

# **GRADUATION REQUIREMENTS**

The minimum number of credits that are required to earn a diploma from St. Mary's High School is 27.0. Each year long (2 semesters) has a credit value of 1.0. Semester long courses have a 0.5 credit value.

SUBJECT STRAND	REQUIRED CREDITS	RECOMMENDED CREDITS
English	4.0	4.0
Mathematics	3.0	4.0
Science	3.0	4.0
Social Studies	3.0	3.0
World Languages	3.0	4.0
Physical Education	1.0	1.0
The Arts	0.5	1.0
Religion/Ethics	1.0	1.0
Additional Courses	8.5	8.5
TOTAL	27.0	30.5



# The International Baccalaureate Programme

In addition to earning the St. Mary's High School diploma, students have the opportunity to prepare for the externally awarded International Baccalaureate (IB) Diploma. The IB Diploma is recognized worldwide and may earn students advanced university standing in many universities. However, it is important to recognize that university requirements and credits are different at each institution, so it is advisable for students and parents to consult universities in their home countries and/or where they intend to study for further details.

#### IB Diploma courses are divided into six groups

**Group 1**: Studies in Language and Literature

Group 2: Language Acquisition

**Group 3:** Individuals and Societies

**Group 4**: Sciences

**Group 5**: Mathematics

**Group 6**: The Arts

IB Diploma candidates are required to take one subject from each group. A student may replace a Group 6 subject with a second subject from Groups 1 - 4. Group 2 subjects may be replaced with a second subject from Group 1.

Most IB subjects are offered at the Standard (SL) Level and the Higher (HL) Level. Students completing the full IB Diploma take 3 subjects at the Higher Level (HL) with the remainder taken at the Standard Level (SL). St. Mary's and the IB Organization do not recommend that students take 4 Higher Level (HL).

Each examined subject is graded on a scale of 1 (minimum) to 7 (maximum). The award of the Diploma requires a minimum total of 24 points and the satisfactory completion of three additional requirements:

- the Extended Essay of some 4000 words, which provides the experience of an independent research paper;
- the Theory of Knowledge (TOK) course, that explores the relationships among the various disciplines and ensures that students engage in critical reflection and analysis of the knowledge acquired within and beyond the classroom;
- the compulsory participation in CAS (Creativity, Action, Service) extracurricular and community service activities.

The maximum score attainable in the Diploma is 45 points, including the three possible bonus points for the Extended Essay and TOK.

#### IB (Full) Diploma vs Non-Diploma (IB Course Program)

All St. Mary's students are IB students in the sense that they are enrolled in at least one IB course in grades 11/12. Non-Diploma students at St. Mary's complete the requirements of the IB course program they have selected but have more flexibility and fewer requirements than a Diploma candidate.

See the St. Mary's IB Diploma Programme pages for more details.

# PLANNING YOUR PATH TO GRADUATION

#### CHOOSING COURSES

It is important that students take graduation planning seriously and make informed decisions when choosing courses. Often the best choices are the courses students feel they will enjoy the most and where they are most likely to be successful. However, in addition to graduation requirements, there are specific courses that are essential for application to some college and university programs. If a student has plans to follow a particular path after graduation, it is extremely important to find out what courses will be required and to do so as early as possible working closely with your counselor.

#### When choosing courses, students should consider

1. Required or recommended courses leading toward IB Diploma Programme (grades 11 & 12) and future College/University admission requirements.

Even though Grade 11 or graduation may seem far away, decisions early in high school may affect your options later. Grade 10 students especially need to think about college/university programs and required courses when they choose their IB subjects. Since most IB courses run through Grade 11 and Grade 12,it is important you don't wait till Grade 12 college application time to realize you needed a different course back in Grade 11.

#### 2. Level of interest in the subject studied

Why does a particular course interest you? You will certainly enjoy a course more if you are both interested in the subject matter and the skills required to study it. For example, does the course involve extended writing and do you like or want to get better at writing? Does the subject require you to take initiative and be proactive? In some classes students have to learn more independently. Are you ready for that responsibility?

#### Do choose a course because

- You will enjoy it
- You have a strong interest in it
- You are good at it
- It will help you in your future plans
- · You believe you will succeed in it

#### Do NOT choose a course because

- · Your friends have chosen it
- You think it will be easy
- You have been told it involves less work
- Relatives or friends tell you to do it without good reason
- You just like the teacher

#### Sample Program - 4 Years At A Glance IB DIPLOMA CANDIDATE

STRAND	9	10	11 (IB1)	12 (IB2)
English	• English 9	• English 10	• IB English Language and Literature	• IB English Language and Literature
Mathematics	• Mathematics 9 OR • Mathematics 9 Extended	• Mathematics 10 OR • Mathematics 10 Extended	IB Mathematics:  • Analysis and Approaches  • Applications and Interpretations	IB Mathematics: - Analysis and Approaches OR - Applications and Interpretations
Science	• Science 9	• Science 10	<ul><li> IB Biology</li><li> IB Physics</li><li> IB Chemistry</li><li> IB Computer Science</li><li> IB Design Technology</li></ul>	<ul><li>IB Biology</li><li>IB Physics</li><li>IB Chemistry</li><li>IB Computer Science</li><li>IB Design Technology</li></ul>
Social Studies	• Western World History 9	<ul> <li>Eastern Civilizations +</li> <li>Introduction to Economics and Business Management</li> </ul>	<ul><li>IB History</li><li>IB Economics</li><li>IB Business Management</li></ul>	<ul><li>IB History</li><li>IB Economics</li><li>IB Business Management</li></ul>
World Languages	■ Japanese <b>or</b> ■ French	■ Japanese OR ■ French	• IB Japanese <b>OR</b> • IB French	• IB Japanese <b>OR</b> • IB French
Physical Education	• Physical Education	• Physical Education	Any credits required for graduation	Any credits required for graduation
Ethics & Religion	• Ethics <b>or</b> • Religion	• Ethics <b>or</b> • Religion		
The Arts		n 1 semester rts course		
Other	Personal Life Management  + Additional courses to make total 8.0 credits	Additional courses to make total 8.0 credits	• 6th IB1 course • IB Core • 1.0 credits	• 6th IB2 course  • IB Core  • 1.0 credits  • Study hall

### Sample Program - 4 Years At A Glance IB COURSE PROGRAM

STRAND	9	10	11 (IB1) 12 (IB2)	
English	• English 9	• English 10	Minimum two additional credits from  • English Studies 11 (Non-IB)  • English Studies 12 (Non-IB)  • IB English Language and Literature	
Mathematics	• Mathematics 9 OR • Mathematics 9 Extended	• Mathematics 10  OR • Mathematics 10  Extended	Minimum one additional credits from  • Mathematics: Applications and Interpretations IB SL/HL  OR  • Mathematics: Analysis and Approaches IB SL/HL	
Science	• Science 9	• Science 10	Minimum one additional credits from  IB Biology IB Physics IB Chemistry IB Computer Science IB Design Technology Environmental Studies	
Social Studies	• Western World History 9	Eastern     Civilizations     +     Introduction to     Economics and     Business     Management	Minimum one additional credits from  • IB History  • IB Economics  • IB Business Management  • Contemporary Social Studies	
World Languages	• Japanese <b>or</b> • French	■ Japanese OR ■ French	Minimum one additional credit IB or <b>Non-IB</b>	
Physical Education	• Physical Education	• Physical Education		
Ethics & Religion	• Ethics <b>OR</b> • Religion	• Ethics <b>or</b> • Religion	Any credits required for graduation	
The Arts		m 1 semester rts course		
Other	Personal Life Management  + Additional courses to make total 8.0 credits	Additional courses to make total 8.0 credits Students may take Study Hall in Senior Year		

# **SUBJECT STRANDS**

Course offerings and progressions are outlined for each of the subject strands listed. Suggested progressions from Grade 9 to Grade 12 are shown for each subject strand. These progressions are recommendations and students are encouraged to make appropriate choices based on discussions with counselors, teachers, and the IB coordinator.

English
Mathematics
Science
Social Studies
World Languages
Physical Education
Religion/Ethics and Personal Growth
The Arts
Technology and Design

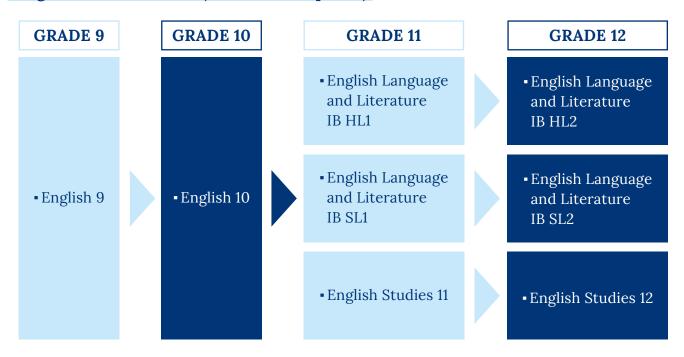
For detailed information on individual courses, please consult the **Course Catalogue**.

Although listed in the course catalogue, a given course may not run in a given academic year or semester dependent on student interest, staffing, and scheduling constraints.

#### **ENGLISH**

The St. Mary's English program aims to promote the acquisition, use, and appreciation of the English language. We seek to guide students toward a clear understanding and fluent expression of ideas through critical thinking, speaking, listening, reading, viewing, researching, and writing skills.

#### **English Credit Courses (4.0 credits required)**



#### Other Courses

**Note** These classes are often taught by faculty in the English department but do not count towards English credit graduation requirements.



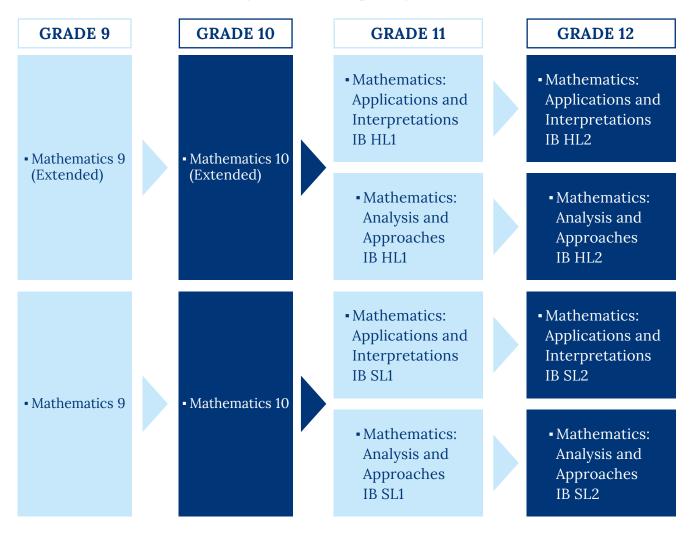
Detailed information about English courses can be found in the **Course Catalogue**.

In instances where a student is unable to complete an IB course, the school may offer English 11 or English 12 as approved by school administration.

#### **MATHEMATICS**

The St. Mary's International School Mathematics program aims to ensure our students are numerate and embody mathematical habits of mind to spark curiosity and enjoyment in mathematics. The curriculum will develop fundamentals, skills, and processes they can use to critically analyze information encountered in their daily and future lives.

#### Mathematics Credit Courses (3.0 credits required)



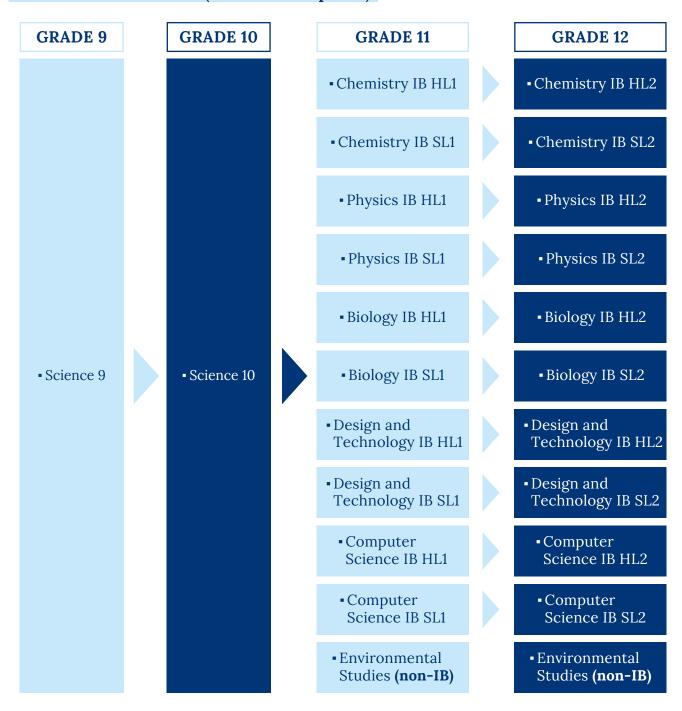
Detailed information about Mathematics courses can be found in the **Course Catalogue**.

In instances where a student is unable to complete an IB course, the school may offer Math 11 or Math 12 as approved by school administration.

#### SCIENCE

The St. Mary's International School Science program aims to explain, model, and predict various aspects of the Universe in which we live. The science program provides opportunities for scientific study and creativity that will stimulate and challenge students. The knowledge, understandings, and scientific skills gained by students will enable them to analyze, communicate, evaluate, and interpret scientific information. The program will develop student awareness of the moral, ethical, social, economic, and environmental implications of integrating science and technology in the 21st century.

#### Science Credit Courses (3.0 credits required)

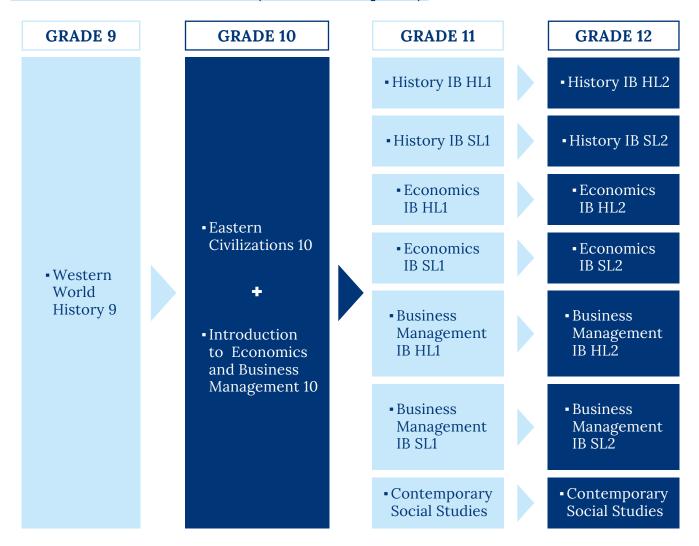


Detailed information about Mathematics courses can be found in the **Course Catalogue**.

#### **SOCIAL STUDIES**

The St. Mary's Social Studies program encourages and promotes acquisition of knowledge, skills, and dispositions that enable students to become informed, responsible, and contributing members of the local and global society.

#### Social Studies Credit Courses (3.0 credits required)



#### **Other Courses**

Journalism is often taught by faculty in the Social Studies department but counts towards Elective credit graduation requirements.

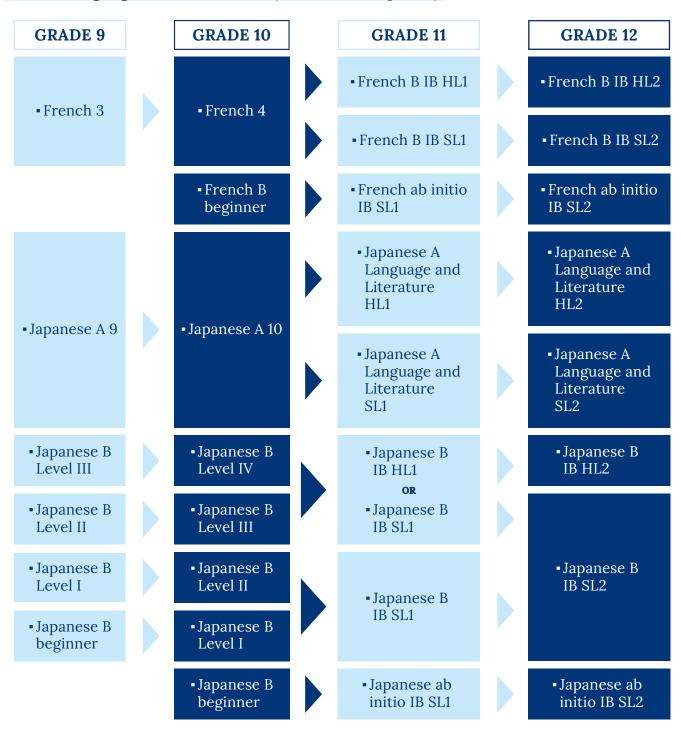


Detailed information about Social Studies courses can be found in the **Course Catalogue**.

#### WORLD LANGUAGES

All academic programs at St. Mary's are designed to prepare students for higher education through a rigorous and challenging curriculum. Through well crafted learning activities, students develop critical thinking skills, express creativity and learn to communicate effectively.

#### World Languages Credit Courses (3.0 credits required)



Detailed information about World Languages courses can be found in the **Course Catalogue**.

#### PHYSICAL EDUCATION

The St. Mary's International School Physical Education department aims to develop physically literate individuals. Physical literacy is the ability to move with competence and confidence in a wide variety of physical activities in multiple environments.

The Physical Education program at St. Mary's aims to provide knowledge and skills by helping them develop physical literacy and well-being, ultimately giving them the capacity they will need to lead healthy, active lives.

#### Physical Education Credit Courses (1.0 credits required)

• Physical Education

• Strength and Movement

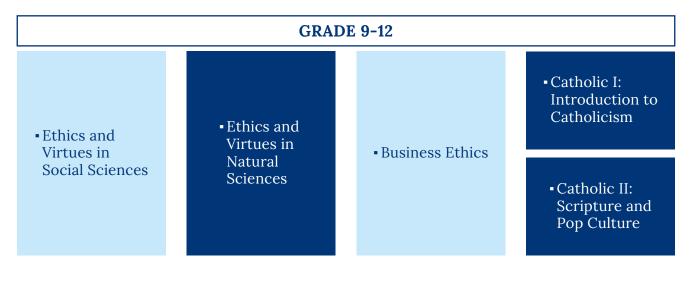
• Aquatics, Fitness, Sports and Safety

Detailed information about Physical Education courses can be found in the **Course Catalogue**.

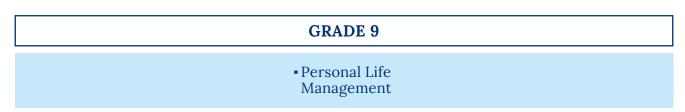


#### ETHICS, RELIGION, AND PERSONAL GROWTH

**Ethics and Religion Credit Courses (1.0 credits required)** 

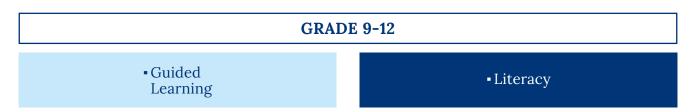


#### Personal Growth



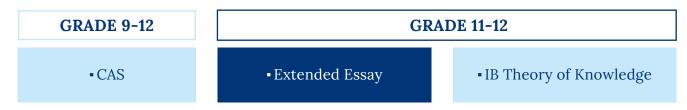
#### Student Support

Student learning support is available for students.



#### IB Diploma Candidate Courses and Requirements

All IB Diploma candidates take Theory of Knowledge and must complete their Extended Essay and CAS (Creativity, Action, Service) requirements.

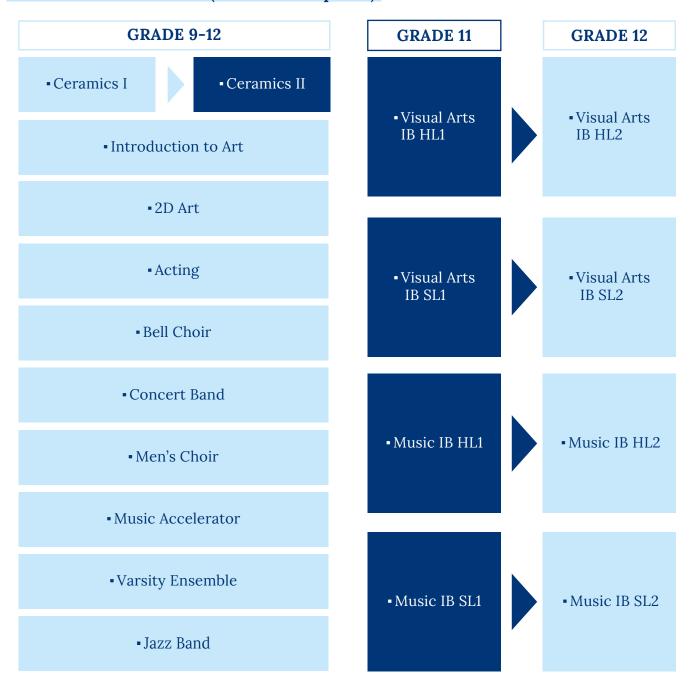


Detailed information about the above courses can be found in the **Course Catalogue**.

#### THE ARTS

The St. Mary's Fine Arts program aims to promote creative skills, critical appreciation, knowledge of artistic techniques and technologies, and skills to communicate ideas. We seek to develop students' sense of personal and cultural identity, and equip them for lifelong involvement in the arts.

#### The Arts Credit Courses (0.5 credits required)

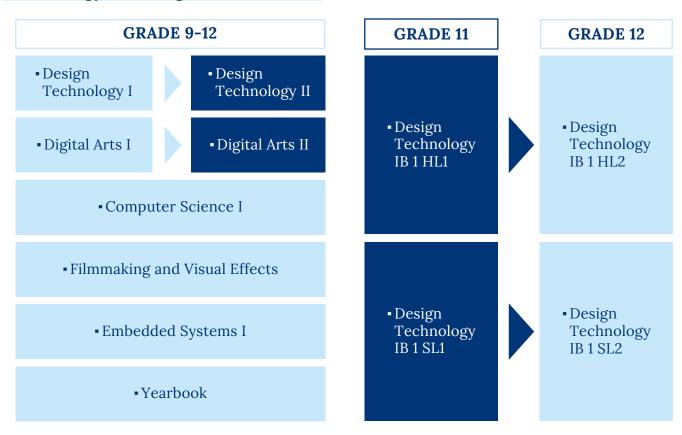


Detailed information about Arts courses can be found in the **Course Catalogue**.

#### TECHNOLOGY AND DESIGN

The philosophy that underlies broad-based technological education at St. Mary's is that students learn best by doing. Technology and Design curriculum therefore adopts an activity-based, project-driven approach that involves students in problem solving as they gain knowledge, skills and experience in the subject area of their choice. The St. Mary's curricular program explores the world of technology and design, providing opportunities for students to research, plan, create, experiment, collaborate, and think critically about the applications of technology, design, related issues.

#### **Technology and Design Credit Courses**



Detailed information about the above courses can be found in the **Course Catalogue**.

# **Course Catalogue**

## **ENGLISH**

#### **ENGLISH 9**

Credit Type: ENG Credit Value: 1.0 Prerequisites: None

Grade 9 English Language Arts provides students with the preparatory skills required for high school and IB English. Whilst students receive exposure to all of the language arts (listening, reading, speaking, and writing), the main focus of the course is to ensure students are able to articulate fluently and confidently in both written and verbal form. The course begins with a rigorous review of grammatical functions and vocabulary; following this, students spend time on both creative writing and literary analysis through the study of journalism, speeches, drama, prose, and poetry.

#### ENGLISH 10

Credit Type: ENG Credit Value: 1.0

Prerequisites: English 9

English 10 is IB preparatory course that focuses on increasing students' appreciation of the interactions of culture, language, and media, developing their listening and note-taking skills, improving their reading comprehension, and strengthening their composition skills. Students practice these skills through exposure to a variety of literary and non-literary forms and opportunities to critically think about and discuss them. Summative assessments are administered in both oral and written formats and include projects such as researched presentations or papers.

#### ENGLISH LANGUAGE AND LITERATURE IB HL/SL

Credit Type: ENG Credit Value: 1.0

Prerequisites: English 10 + Department approval

The Language A: Language and Literature course aims to develop skills of textual analysis and the understanding that texts, both literary and non-literary, can relate to culturally determined reading practices, and to encourage students to question the meaning generated by language and texts. An understanding of the ways in which formal elements are used to create meaning in a text is combined with an exploration of how that meaning is affected by reading practices that are culturally defined and by the circumstances of production and reception.

Helping students to focus closely on the language of studied texts and to become aware of the role of wider context in shaping meaning is central to the course. The study of literature in translation from other cultures is especially important to IB DP students because it contributes to a global perspective. Texts are chosen from a variety of sources, genres and media. More information can be found in the <u>IBDP curriculum</u> page.

#### **CREATIVE WRITING**

Credit Type: ELEC Credit Value: 0.5 Prerequisites: None

This is a one semester course where students are able to move away from academic writing and let their imaginations unleash on a document. Students work with the teacher on types of writing they would like to try, and based on their feedback, the course is designed to meet their interests. Focuses can and have included film writing, storyboarding, stream of consciousness, short story, and genre-specific (horror, fantasy/folk, realistic). Students are able to share their work with their peers both in pairs/small groups as well as with the class as a whole-both orally as well as through sharing documents. Students also receive teacher feedback both orally as well as through written comments on their shared document. Since most of the writing happens in class, students are able to receive immediate feedback to strengthen their writing style and skills.

# **MATHEMATICS COURSES**

#### **MATHEMATICS 9**

Credit Type: MAT Credit Value: 1.0 Prerequisites: None

This course enables students to develop an understanding of mathematical concepts related to functions, analytic geometry, and patterns in shape, data, and chance. Students will develop, select, apply, and compare a variety of problem-solving strategies as they pose and solve problems and conduct investigations, to help deepen their mathematical understanding. They will also develop and apply reasoning skills to make mathematical conjectures, assess conjectures, and justify conclusions, and plan and construct organized mathematical arguments, and will demonstrate that they are reflecting on and monitoring their thinking to help clarify their understanding as they complete an investigation or solve a problem. Students will communicate mathematical thinking orally, visually, and in writing, using mathematical vocabulary and a variety of appropriate representations, and observing mathematical conventions.

The topics covered in Mathematics 9 are a subset of those covered in Mathematics 9 - Extended. The intention is to provide students additional time to develop and master mathematical processes and skills as well as to develop a deeper understanding of mathematical concepts.

#### **MATHEMATICS 9 - EXTENDED**

Credit Type: MAT Credit Value: 1.0 Prerequisites: None

This course enables students to develop an understanding of mathematical concepts related to functions, analytic geometry, trigonometry, data and probability. Students will develop, select, apply, and compare a variety of problem-solving strategies as they pose and solve problems and conduct investigations, to help deepen their mathematical understanding. They will also develop and apply reasoning skills to make mathematical conjectures, assess conjectures, and justify conclusions, and plan and construct organized mathematical arguments, and will demonstrate that they are reflecting on and monitoring their thinking to help clarify their understanding as they complete an investigation or solve a problem. Students will communicate mathematical thinking orally, visually, and in writing, using mathematical vocabulary and a variety of appropriate representations, and observing mathematical conventions .

#### **MATHEMATICS 10**

Mathematics 10 Credit Type: MAT Credit Value: 1.0

Prerequisites: Mathematics 9

This course enables students to broaden their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and abstract reasoning. Students will work with nonlinear and inverse functions. They will be introduced to recursion and iteration, reasoning and proof, trigonometric methods, similarity and congruence, and probability distributions.

The topics covered in Mathematics 9 are a subset of those covered in Mathematics 9 - Extended and 10 - Extended. The intention is to provide students additional time to develop and master mathematical processes and skills as well as to develop a deeper understanding of mathematical concepts.

The course is intended to adequately prepare students for what is to come in the IB Diploma Programme and to help them make the appropriate course selection between Analysis and Approaches SL or Applications and Interpretations SL.

#### MATHEMATICS 10 - EXTENDED

Credit Type: MAT Credit Value: 1.0

Prerequisites: Mathematics 9 - Extended

This course enables students to broaden their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and abstract reasoning. Students will work with nonlinear, inverse, polynomial, rational, and circular functions as well as families of functions. They will be introduced to recursion and iteration, reasoning and proof, vectors and motion, and samples and variation.

The course is intended to adequately prepare students for what is to come in the IB Diploma Programme and to help them make the appropriate course selection between Analysis and Approaches or Applications and Interpretations and determine the appropriate level.

#### MATHEMATICS: ANALYSIS & APPROACHES IB HL/SL

Credit Type: MAT Credit Value: 1.0

Prerequisites: Mathematics 10 (Mathematics 10 Extended for HL) + Department approval

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

that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series at both SL and HL, and proof by induction at HL.

The course allows the use of technology, as fluency in relevant mathematical software and handheld 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.

Students who choose Mathematics: Analysis and Approaches at SL or HL should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns. Students who wish to take Mathematics: Analysis and Approaches at higher level will have strong algebraic skills and the ability to understand simple proof. They will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems.

#### MATHEMATICS: APPLICATIONS & INTERPRETATIONS IB HL/SL

Credit Type: MAT Credit Value: 1.0

Prerequisites: Mathematics 10 (Mathematics 10 Extended for HL) + Department approval

This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical 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.

Students who choose Mathematics: Applications and Interpretation at SL or HL should enjoy seeing mathematics used in real-world contexts and to solve real-world problems. Students who wish to take Mathematics: applications and interpretation at higher level will have good algebraic skills and experience of solving real-world problems. They will be students who get pleasure and satisfaction when exploring challenging problems and who are comfortable to undertake this exploration using technology.

# **SCIENCE COURSES**

#### SCIENCE 9

Credit Type: SCI Credit Value: 1.0 Prerequisites: None

Science 9 develops core inquiry skills including investigation design, data logging, data management and processing, and communication. These foundations are emphasized through topics in chemistry, physics and biology that prepare the students for subject specific science courses in Grade 10. Beginning with the big ideas introduced in Middle School science, the goal of Science 9 is for the student to master these concepts and then extend through both broader and deeper understandings.

The chemistry units of study focus on structure and properties of matter. Students develop understandings of physical and chemical properties, atomic structure, chemical bonding and reactions. The physics portion of the course introduces students to concepts and understandings related to motion, forces and thermal physics. These units have a strong emphasis on graphing skills and using sensors to collect data. In biology, students will develop knowledge and conceptual understanding of the cell as the basic structure of life. Using a microscope to examine and diagram cell structure is a large component of the practical program. Study of membranes and cellular transport concludes the biology content.

#### **SCIENCE 10**

Credit Type: SCI Credit Value: 1.0

Prerequisites: Science 9 or equivalent

Science 10 continues building students' core inquiry skills with more investigation design, data logging, data management and processing, and communication giving students the background necessary to succeed in Grade 11 and 12 Science classes, including IB Diploma Biology, Chemistry, and Physics. While the course is not designed to teach the IB syllabus in advance, it will scaffold some of the required knowledge and skills that students can utilize. Lab activities will be more rigorous and encourage a professional, methodical approach to scientific investigation through the development of more technical lab skills such as colorimetric analysis, titration and the use of data-loggers. A similar philosophy applies to documentation of methodology, data collection and analysis and the evaluation of the investigation. Students are challenged to communicate concisely using appropriate scientific conventions and terminology. Grade 10 Biology students will study anatomy and physiology, genetics and evolution, and plants and ecology, with an emphasis on fundamental structures and processes in plants and animals.

In Chemistry, Grade 10 students study quantitative chemistry, acids and bases and organic chemistry, and gain understanding of a powerful analytical technique in titration. For Physics, students will analyze data from analog and digital sources, explore the relationships between work, energy, and power, build and test electric circuits, and explain the nature of waves.

#### BIOLOGY IB HL/SL

Credit Type: SCI Credit Value: 1.0

Prerequisites: Science 10 + Department approval

In IB Biology there are four basic biological concepts that run throughout the course: Structure and Function, Universality Versus Diversity, Equilibrium within Systems, and Evolution. A variety of topics covered in this course are Cells, the Chemistry of Life, Genetics, Ecology and Evolution, and Human Health and Physiology. It is hoped that students will not only acquire a body of facts, but also develop a broad, general understanding of the principles of biology at the same time. The required Individual Investigation gives the students an opportunity to design controlled experiments, properly analyze and present data, and communicate their observations through evaluation and conclusion. In addition, students are required to participate in a cross-discipline (Group IV) project that requires them to collaborate with all other science students in the IB program that is specifically assessed for personal skills and the ability to work within a team framework. The IB Biology SL/HL subject briefs provide more detail on the course description, aims, curricular topics and assessment. More information can be found in the IBDP curriculum page.

#### CHEMISTRY IB HL/SL

Credit Type: SCI Credit Value: 1.0

Prerequisites: Science 10 + Department approval

IB Chemistry covers 11 topics central to the foundations of physical and organic chemistry including concepts such as atomic structure, quantitative chemistry, oxidation and reduction reactions, thermal chemistry, acids and bases, and equilibrium. The purpose of the curriculum is to expose students to major scientific themes and demonstrate the connections and interactions that exist between the concepts. The required Individual Investigation gives the students an opportunity to design controlled experiments, properly analyze and present data, and communicate their observations through evaluation and conclusion. In addition, students are required to participate in a cross-discipline (Group IV) project that requires them to collaborate with all other science students in the IB program that is specifically assessed for personal skills and the ability to work within a team framework. The IB Chemistry SL/HL subject briefs provide more detail on the course description, aims, curricular topics and assessment. More information can be found in the IBDP curriculum page.

#### COMPUTER SCIENCE IB HL/SL

Credit Type: SCI Credit Value: 1.0

Prerequisites: None - Previous course in computer science recommended

The IB DP computer science course requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate. The course, underpinned by conceptual thinking, draws on a wide spectrum of knowledge, and enables and empowers innovation, exploration and the acquisition of further knowledge. Students study how computer science interacts with and influences cultures, society and how individuals and societies behave, and the ethical issues involved. During the course the student will develop computational solutions. This will involve the ability to identify a problem or unanswered question, design, prototype and test a proposed solution, and liaise with clients to evaluate the success of the proposed solution and make recommendations for future developments. More information can be found in the <u>IBDP curriculum</u> page.

#### PHYSICS IB HL/SL

Credit Type: SCI Credit Value: 1.0

Prerequisites: Science 10 + Department approval

Physics, the foundation of science, seeks to explain the 'why' of the universe. From the smallest constituents of matter to the vast distances of space, physics describes the fundamental principles that govern our physical world. The IB SL Physics course is a two year program consisting of eight core units of study and one additional option topic collectively giving the student strong foundations in classical physics. The additional HL syllabus material extends the depth and breadth of concepts introduced in core units. Scientific investigation is a significant part of the course. The required Individual Investigation gives the students an opportunity to design controlled experiments, properly analyze and present data, and communicate their observations through evaluation and conclusion. In addition, students are required to participate in a cross-discipline (Group IV) project that requires them to collaborate with all other science students in the IB program that is specifically assessed for personal skills and the ability to work within a team framework. The IB Physics SL/HL subject briefs provide more detail on the course description, aims, curricular topics and assessment. More information can be found in the IBDP curriculum page.

#### DESIGN TECHNOLOGY IB SL/HL

Credit Type: SCI Credit Value: 1.0

Prerequisites: Department approval

Diploma Programme design technology is based on a model of learning that incorporates knowledge, skills, and design principles in problem-solving contexts, while at the same time maximizing the use of local and readily available resources. The intent is not solely the acquisition of knowledge about design and technology, which may change or become outdated, but it is about learning how to adapt to new experiences and to approach problems with the appropriate skills and the relevant techniques to identify the important elements and, crucially, to develop the optimum solutions. The design cycle is at the core of the course, and it is expected that students will use this process in the practical investigative work as well as in the theory. Each element in the design cycle represents an aspect of design technology, which, when viewed together, constitutes a holistic approach. Any given element is therefore only to be seen in the context of the whole process. In addition, students are required to participate in a cross-discipline (Group 4) project that requires them to collaborate with all other science students in the IB program that is specifically assessed for personal skills and the ability to work within a team framework. More information can be found in the IBDP curriculum page.

#### **ENVIRONMENTAL STUDIES**

Credit Type: SCI Credit Value: 1.0

Prerequisites: Department approval

The purpose of this one year course is to introduce students to a wide-range of topics related to the environment and the world they live in. It consists of five major units covering: An Introduction to Environmental Science/Systems and Economic Policies, Ecology, Humans and the Environment, Earth's Resources, and Looking Towards a Sustainable Future. This course utilizes multiple labs, activities, projects, and case studies designed to empower students to take an active role in their learning, and is designed to provide an alternate route to full science accreditation in the high school. Environmental Science is offered to Grade 11 and 12 students, who will gain insight and practical scientific knowledge outside of the IB setting. This course is offered every other year.

# SOCIAL STUDIES COURSES

#### WESTERN WORLD HISTORY 9

Credit Type: SOC Credit Value: 1.0 Prerequisites: None

Western World History is a chronological survey of world history from the Renaissance to the end of World War II. Although European developments predominate, ample attention is paid to the non-European aspects of world history. The major Asian nations and the Americas are portrayed. Connections are also made from historical events to modern-day world affairs. The course places a focus on the effect of the contact between cultures, social and political change, economic development, the influence of geography, the growth of science and technology, as well as the history of women and minorities. Western World History will introduce, reinforce and extend basic skills in the social sciences. Lessons will cover understanding sequence, identifying cause and effect relationships, distinguishing fact from opinion, developing investigative skills, the use of primary sources, thinking critically, presenting knowledge in a variety of manners, and effectively communicating and collaborating with others.

#### **EASTERN CIVILIZATIONS 10**

Credit Type: SOC Credit Value: 0.5

Prerequisites: Western World History 9

Eastern Civilizations is a one semester course designed to focus on the geopolitical issues and social traditions of China, Japan and Korea, and serve as a survey of history to the present. Students will develop an understanding of these countries' emergence onto the world stage in the modern world. This course is designed to help students understand the present by caring about and understanding what happened in the past.

#### BUSINESS MANAGEMENT IB SL/HL 1

Credit Type: SOC Credit Value: 1.0

Prerequisites: Department approval

The IB Business Management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyze, discuss, and evaluate business activities at local, national, and international levels. Covering a range of organizations across various sectors, the course places these businesses within the sociocultural and economic contexts in

which they operate. The course content is divided into five units: Introduction to Business Management, Finance and Accounts, Human Resource Management, Marketing, and Operations. Through this curriculum, students are encouraged to appreciate ethical concerns at both local and global levels and to develop relevant, transferable skills, such as critical thinking, ethical decision-making, and strategic planning. The course also builds subject-specific competencies, including financial analysis, equipping students with skills for long-term planning, analysis, and evaluation. More information can be found in the <u>IBDP curriculum</u> page.

#### 20TH CENTURY WORLD HISTORY IB SL/HL

Credit Type: SOC Credit Value: 1.0

Prerequisites: Department approval

IB History is a dynamic and evidence-based study that involves an exciting engagement with the past. It is based on a comparative and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social, and cultural. It puts a premium on developing critical thinking skills and understanding multiple interpretations of the past. History IB students study the major cultural, socio-economic, and historical trends related to Single Party and Authoritarian States, Causes, Practices and Effects of 20th Century Wars, and Move to Global War. HL students also will explore China and Korea (1910 - 1950), Modern Japan, and the People's Republic of China. More information can be found in the <u>IBDP curriculum</u> page.

#### INTRODUCTION TO ECONOMICS AND BUSINESS MANAGEMENT 10

Credit Type: SOC Credit Value: 0.5 Prerequisites: None

This one semester course is designed to provide students with an introduction to the basic principles of economics and business management. Students will develop an understanding of Economics concepts such as scarcity, demand and supply model, economic systems and GDP. In addition to this, students will explore business topics such as motivational theory, breakeven analysis, marketing, and business management tools such as SWOT analysis.

#### ECONOMICS IB HL/SL

Credit Type: SOC Credit Value: 1.0

Prerequisites: Department approval

Economics is a dynamic social science. The study of economics is essentially about dealing with scarcity, resource allocation, and the methods and processes by which choices are made in the satisfaction of human wants. As a social science, economics uses scientific methodologies that include quantitative and qualitative elements. The DP economics course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments and societies. These economic theories are not studied in a vacuum—rather, they are to be applied to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development, and environmental sustainability. The economics course encourages students to develop international perspectives, fosters a concern for global issues, and raises students' awareness of their own responsibilities at a local, national, and international level. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources. More information can be found in the IBDP curriculum page.

#### CONTEMPORARY SOCIAL STUDIES

Credit Type: SOC Credit Value: 1.0

Prerequisites: Department approval

Contemporary Social Studies aims at exploring and inquiring into a range of topics including: Business and Employment, Education, Environment, Healthcare, Policies and Government and Lifestyle. The course focuses primarily on the contemporary world and on the forces which have shaped it and will continue to shape it in the future. Students who completed the course will be able to anticipate, understand, and respond to this ever-changing world, and show appreciation of the impact of technology on society. This course is offered every other year.

# WORLD LANGUAGES

#### FRENCH B - BEGINNER

Credit Type: LAN
Credit Value: 1.0
Prerequisites: None

This course is designed for students with little or no knowledge of the French language. The overarching objective of this course is to achieve communicative competence in everyday situations. Students will learn how to express themselves to talk about their feelings in both writing and speech. This will entail the study of basic grammatical patterns and the acquisition of an extensive vocabulary.

#### FRENCH 3

Credit Type: LAN Credit Value: 1.0

Prerequisites: French 2 or 2 years of French learning experience and department approval

This course provides opportunities for students to communicate and interact in French, with a focus on familiar topics related to their daily lives. The focus is on acquiring a confident command of intermediate language skills in order to sound as close as possible to native speakers of French. With that objective in mind, projects are organized throughout the year.

#### FRENCH 4

Credit Type: LAN Credit Value: 1.0

Prerequisites: French 3

Focused on acquiring the skills needed for reading and writing, this course is meant at introducing step by step the standards of assessment for the IB examination in French Language B. Aside from the various reading activities, the students are also introduced to the method for the Individual Oral Presentation. As often as possible, projects are also organized through the year.

#### FRENCH AB INITIO IB SL

Credit Type: LAN
Credit Value: 1.0

Prerequisites: None or French Beginner and department approval

This course is developed through the Junior and Senior grade years to prepare the students for the IB-Ab Initio exams. Students will develop their reading, writing, speaking and listening skills. Emphasis is put on using consistently and reinforcing all of the language skills through various media in accordance with the standards defined by the IBO. These skills are polished all the while enhancing awareness of the cultural specificities of French culture through five main themes: Identities, Experiences, Human Ingenuity, Social Organization and Sharing the planet. More information can be found in the <u>IBDP curriculum</u> page.

#### FRENCH B IB HL/SL

Credit Type: LAN Credit Value: 1.0

Prerequisites: French 4 for the students who have been studying at St. Mary's

(2-4 years of French learning experience)

This course requires a minimum of 2-4 years experience in French language learning and aims at preparing the students for French as Language B of the IB diploma. The course is developed through the Junior and Senior grade years. At this stage, the students have a command of French language sufficient enough to allow them to delve into authentic material and use skills to understand them. Emphasis is put on using consistently and reinforcing all of the language skills through various media in accordance with the standards defined by the IBO. These skills are polished all the while enhancing awareness of the cultural specificities of the francophone world through five main themes: Identities, Experiences, Human Ingenuity, Social Organization, and Sharing the planet. While HL students are also required to read two works of literature originally written in French, all students will enhance their intercultural understanding through texts about global and current issues in the francophone world, a key course element. More information can be found in the <u>IBDP curriculum</u> page.

#### JAPANESE A 9

Credit Type: LAN
Credit Value: 1.0

Prerequisites: Department placement or approval

Japanese A9 provides students with the preparatory skills required for high school and IB Japanese A. Whilst students gain experience of all four skills (listening, reading, speaking and writing), the main focus of the course is upon ensuring that they are able to articulate fluently and confidently in reading comprehension, writing and speech. Assessment is mainly conducted in both written and reading forms.

#### **JAPANESE A 10**

Credit Type: LAN
Credit Value: 1.0

Prerequisites: Japanese A9

Japanese A10 is an IB preparatory course in which students engage with a variety of literary and non-literary forms to improve their reading comprehension and develop critical thinking and discussion skills. Building on these skills, the course also aims to enhance students' writing

abilities. Assessment is conducted in both written and oral formats, including research-based presentations.

#### JAPANESE A: LANGUAGE AND LITERATURE IB HL/SL

Credit Type: LAN Credit Value: 1.0

Prerequisites: Japanese A10 and department approval

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

More information can be found in the **IBDP** curriculum page.

#### JAPANESE B LEVEL I

Credit Type: LAN Credit Value: 1.0

Prerequisites: Japanese B Beginner or department placement

This course is designed for students who should already be able to comprehend written and spoken simple Japanese. Students are expected to learn more grammar patterns (e.g. conjugate verbs) to make long and complex sentences, and use them in reading, writing, speaking and listening. Students also need to perform what they have achieved in class in various ways, such as giving presentations, role-plays, and writing short essays. About 160 Kanji will be covered in this course.

#### JAPANESE B LEVEL II

Credit Type: LAN
Credit Value: 1.0

Prerequisites: Japanese B Level I or department placement

This course is a continuation of Japanese B Level1 and emphasizes grammatical structure and vocabulary. Students will strengthen their oral, reading and writing language skills through giving a presentation, acting out role-plays and writing short essays using complex sentence structures. About 300 Kanji will be covered in this course.

#### JAPANESE B LEVEL III

Credit Type: LAN Credit Value: 1.0

Prerequisites: Japanese B Level II or department placement

This course is designed for students who should already be able to comprehend basic written and spoken Japanese. Students are expected to speak and write Japanese within the context of more complex sentence structures. Students are expected to deepen their reading, writing, and understanding of Japanese society, culture and language. Students also need to perform what they have achieved in class in various ways.

#### JAPANESE B LEVEL IV

Credit Type: LAN Credit Value: 1.0

Prerequisites: Japanese B Level III or department placement

This course is designed for students who should already be able to comprehend some complex written and spoken Japanese. Students are expected to speak and write Japanese within the context of more complex sentence structures. Students are expected to deepen their reading, writing, and understanding of Japanese society, culture and language. Students also need to perform what they have achieved in class in various ways.

#### JAPANESE B -BEGINNER

Credit Type: LAN Credit Value: 1.0 Prerequisites: None

This course is designed for students with little or no knowledge of the Japanese language. The overarching objective of this course is to achieve communicative competence in everyday situations. Students will learn how to express themselves to talk about their feelings in both writing and speech. This will entail the study of the Japanese writing system (Hiragana, Katakana and Kanji), basic grammatical patterns and the acquisition of an extensive vocabulary.

# JAPANESE AB INITIO IB SL

Credit Type: LAN Credit Value: 1.0

Prerequisites: None or Japanese B Beginner and department approval

This course is developed through the Junior and Senior grade years to prepare the students for the IB-Ab Initio exams. Students are required to develop their reading and writing skills by reading basic topics after discovering the hiragana and katakana characters. They will also learn 160 kanji. Emphasis is put on using consistently and reinforcing all of the language skills through various media in accordance with the standards defined by the IBO. These skills are polished all the while enhancing awareness of the cultural specificities of the Japanese culture through five main themes: Identities, Experiences, Human Ingenuity, Social Organization, and Sharing the planet. More information can be found in the <u>IBDP curriculum</u> page.

# JAPANESE B IB HL/SL

Credit Type: LAN Credit Value: 1.0

Prerequisites: Japanese B Level III/IV for HL and B Level I/II for SL and department approval

The course aims at preparing the students for Japanese as Language B of the IB diploma and is developed through the Junior and Senior grade years. At this stage, the students have a command of Japanese language sufficient enough to allow them to delve into authentic material and use skills to understand them. Emphasis is put on using consistently and reinforcing all of the language skills through various media in accordance with the standards defined by the IBO. These skills are polished all the while enhancing awareness of the cultural specificities of the Japanese culture through five main themes: Identities, Experiences, Human Ingenuity, Social Organization, and Sharing the planet.

Students will study 400 kanji in SL and 600 kanji in HL over 2 years and employ them in their compositions. In addition, the course aims to develop the students' intercultural understanding. Therefore, while HL students are also required to read two works of literature originally written in Japanese, all students will enhance their intercultural understanding through texts about global and current issues in Japan, a key course element. More information can be found in the IBDP curriculum page.

# **ARTS COURSES**

#### ACTING

Credit Type: ART Credit Value: 0.5 Prerequisites: None

This course provides opportunities for students to explore acting forms and techniques, using material from a wide range of sources and cultures. Students will use the elements of acting to examine situations and issues that are relevant to their lives. Students will create, perform, discuss, and analyse acting, and then reflect on the experiences to develop an understanding of themselves, the art form, and the world around them.

#### **BELL CHOIR**

Credit Type: ART Credit Value: 1.0 Prerequisites: None

Bell choir is a two-semester course that is open to students interested in ringing. It is intended to enhance listening and performance skills in artistic renditions of bell music through kinesthetic, rhythmic, and interpretive accuracy. The Bell Choir performs at the major concerts during the school year and for invitational performances throughout Tokyo.

# CONCERT BAND

Credit Type: ART Credit Value: 1.0

Prerequisites: Recommended that students have 1-2 years of previous instrumental experience

The Concert band is a two-semester ensemble for instrumentalists who have previous experience on a traditional band instrument. Continued emphasis is given to the development of musicianship and basic skills through a large repertoire of appropriate level band literature. Students perform several times throughout the year including the Christmas Concert, KPASSP Instrumental Festival, Spring Concert, and school assemblies.

#### JAZZ BAND

Credit Type: ART Credit Value: 1.0

Prerequisites: Instructor approval and audition may be required

The Jazz Band is a two-semester auditioned ensemble that consists of select students from the concert band. Students will perform several times throughout the year at the Christmas and

Spring concerts as well as the International Ball, Carnival, school assemblies, and international jazz festivals. Students involved in Jazz Band will perform with the Concert Band, regardless of enrollment in the Concert Band class. Students can, however, enroll in both courses.

Note Scheduled outside of normal 8 period school day.

#### MEN'S CHOIR

Credit Type: ART Credit Value: 1.0 Prerequisites: None

The Men's Choir is a two semester ensemble designed to provide continuing vocal instruction and general musicianship skills for choral students at different levels. Instruction will include continuing music literacy and music theory and will expose students to all types of music from baroque to contemporary popular styles. Students perform several times throughout the year including the Christmas Concert, KPASSP Choral Festival, SMA Luncheon, Spring Concert, Carnival, school assemblies, and for community charity events.

# MUSIC ACCELERATOR 1

Credit Type: ART
Credit Value: 0.5
Prerequisites: None

This course begins with the basics of music, including learning how to read written music as well as audiate the written music (sightsinging). Additionally, students would learn about tonality (major and minor), key signatures, chords and chord progressions, and simple analysis. Practice lab time will be allocated for students to practice and hone in on their musical skills and creative endeavors using music software.

# **MUSIC ACCELERATOR 2**

Credit Type: ART Credit Value: 0.5

Prerequisites: Music Accelerator 1

This course is a continuation of Music Accelerator 1.

# MUSIC IB HL/SL

Credit Type: ART Credit Value: 1.0

Prerequisites: Instructor approval and audition may be required

The IB Music course is an enriching and rigorous exploration of music as a dynamic and cultural art form. Designed for students with diverse musical backgrounds or interests in either classical or contemporary digital music, the course fosters creativity, critical thinking, and musical understanding through the study, performance, and creation of music.

Students engage with a broad range of musical styles, traditions, and contexts, analyzing music from various cultural and historical perspectives. They develop practical skills in performance, digital music, composition, and experimentation while simultaneously refining their ability to think critically about music.

The course consists of three interconnected areas of inquiry:

- Exploring Music in Context Investigating music from different cultures, styles, and periods.
- Experimenting with Music Developing creative processes through experimentation, performance, and digital manipulation.
- Presenting Music Showcasing musical understanding through curated performances and compositions.

# **VARSITY ENSEMBLE**

Credit Type: ART Credit Value: 1.0

Prerequisites: Instructor approval and audition may be required

This auditioned ensemble consists of a select group from the Men's Choir. Students perform several times throughout the year including the Christmas Concert, KPASSP Choral Festival, SMA Luncheon, Spring Concert, school assemblies, community charity events as well as international choral competitions and ACDA conventions.

Note Scheduled outside of normal 8 period school day.

# **CERAMICS I**

Credit Type: ART Credit Value: 0.5 Prerequisites: None

A wide variety of ceramic wares will be explored using hand building techniques. Students will also explore throwing on our pottery wheels. 2D surface design is an important aspect of this predominantly three dimensional medium. Experimentation and exploration of ceramic techniques are core elements of this course. An additional emphasis on critical analysis of ceramic art and artists is explored.

# **CERAMICS II**

Credit Type: ART Credit Value: 0.5

Prerequisites: Ceramics I

Ceramics II builds on skills and concepts from Ceramics I.

#### **CERAMICS III**

Credit Type: ART Credit Value: 0.5

Prerequisites: Ceramics II

Ceramics II builds on skills and concepts from Ceramics I & II.

# INTRODUCTION TO ART I

Credit Type: ART Credit Value: 0.5 Prerequisites: None

This course will provide the necessary foundational art skills for the high school art program. Students will explore various 2D and 3D projects while utilizing the basic elements and principles of art and design. Students will research art movements and periods, work in their visual art journals, explore printmaking, painting, ceramics, sculpture, and various other mediums.

# INTRODUCTION TO ART II

Credit Type: ART Credit Value: 0.5

Prerequisites: Introduction to Art

Introduction to Art II builds on skills and concepts from Introduction to Art.

# VISUAL ARTS IB HL/SL

Credit Type: ART Credit Value: 1.0

Prerequisites: Department approval

The IB Diploma Programme visual arts course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-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. More information can be found in the <u>IBDP curriculum</u> page.

#### ADDITION COURSE OPTIONS

Course I, II and III will be offered during the same core. Example: 2D Art I and 2D Art ll is scheduled at the same core.

#### 2D ART I

Credit Type: ART Credit Value: 0.5 Prerequisites: None

This will be the course to develop students' 2D art skills. Students will explore and expand your understanding and skills using a variety of 2D art mediums. (Example: Acrylics, watercolor, oil pastels, etc). Students will develop technical mastery, research various artists, work in their visual art journals and develop their own artist vision.

# 2D ART II

Credit Type: ART Credit Value: 0.5

Prerequisites: 2D Art l

2D Art builds on skills and concepts from 2D Art l.

# **DIGITAL ARTS I**

Credit Type: ART Credit Value: 0.5 Prerequisites: None

This course introduces students to the foundations of digital arts; it primarily focuses on photography and graphic design and how the two work cohesively in modern professional design. Students learn to use Adobe Photoshop, Illustrator, Dimensions and InDesign for artistic, marketing and design purposes. This course encourages students to analyze marketing and professional works and how they make an impact in the digital world while developing their own works and designs.

#### **DIGITAL ARTS II**

Credit Type: ART Credit Value: 0.5

Prerequisites: Digital Arts I

Digital Arts II builds on skills and concepts from Digital Arts I.

# FILMMAKING AND VISUAL EFFECTS

Credit Type: ART Credit Value: 0.5 Prerequisites: None

This course introduces students to what goes on behind the scenes when creating a film or TV show. Students learn to use Adobe Premiere Pro and After Effects to produce their own short films. Throughout the course, students will analyze film for storytelling, cinematography and post-production techniques and choices.

# **COMPUTER SCIENCE I**

Credit Type: ELEC Credit Value: 0.5 Prerequisites: None

This course introduces students to computer science. Students will learn the fundamentals of coding through the medium of video gaming. They will also experience the design and creation of robotics through the creation of prosthetics. This course asks students to address real world problems in real world contexts in order to understand how and why computer science is relevant to students' lives.

# EMBEDDED SYSTEMS I

Credit Type: ELEC Credit Value: 0.5 Prerequisites: None

This course provides a basic introduction to microcontroller-based embedded systems design, development and implementation. Students will use the Arduino micro-controller in a progression of projects designed to teach elementary electronics, programming and I/O interfacing. These projects involve connecting a wide variety of hardware including LEDs, switches, resistors, motors, servos and then installing various sensors for autonomous control.

# YEARBOOK

Credit Type: ELEC Credit Value: 1.0 Prerequisites: None

This course requires intensive work to produce the school yearbook. It covers the fundamentals of layout, graphics, photography, composition, and editorial skills. Students are encouraged to examine and explore these concepts as they apply to their publication efforts and to use them in creating an expressive, interesting, and well-organized yearbook.

#### **DESIGN TECHNOLOGY I**

Credit Type: ELEC Credit Value: 0.5 Prerequisites: None

Students embark on a series of design projects that are situated within a range of real world, engaging contexts. These projects range from fashion to architecture, product design to fabrication. Students use design thinking to create solutions to problems, beginning with research, moving through design, before the creation of prototypes and testing against the specification. Students are able to learn both technical making skills, as well as project management skills.

# **DESIGN TECHNOLOGY II**

Credit Type: ELEC Credit Value: 0.5

Prerequisites: Design Technology I

Building on the experiences and knowledge gained in Design Technology 1, students identify a real world problem that has the scope to be the driving focus of an independent project. Students use the design cycle in order to research and develop solutions to the problem, before the creation of a prototype ready for testing. These projects can be based in a number of design fields, including fashion, product design, architecture, and more.

# RELIGION/ETHICS AND PERSONAL GROWTH COURSES

# **CHRISTIAN ETHICS & VIRTUES**

Credit Type: ETH Credit Value: 0.5 Prerequisites: None

This course is an engaging and insightful course designed for high school students to explore moral principles and spiritual truths from a Catholic perspective. This course helps students understand key topics like evidence for God's existence, the nature of the soul, and the purpose of human life. Through faith and reason, students will learn how virtues shape their choices and impact society. Discussions on real-life ethical issues, social justice, and personal vocation will encourage critical thinking. By the end of the course, students will be equipped to integrate faith into their daily lives and make a positive difference in the world.

#### **BUSINESS ETHICS**

Credit Type: ETH
Credit Value: 0.5
Prerequisites: None

Business Ethics is a semester course that explores ethical issues present in today's world of business. Students evaluate ethical dilemmas that arise from business practices through case studies and applying traditional and contemporary ethical theories. Issues that are investigated include topics such as: values, globalization, social responsibility, environmental responsibility, and economic responsibility, the triple bottom line of sustainability, and CSR (corporate social responsibility).

# **CATHOLIC I: INTRO TO CATHOLICISM**

Credit Type: ETH Credit Value: 0.5 Prerequisites: None

This semester long class will introduce the student to the beauty, depth, and universal truths of Catholicism and its grounding in Reason and Faith. The student will reflect on his own life and the life of the Church to help him grow in the virtues of Faith, Hope, and Love. This course will explore the philosophical and metaphysical proofs for God, the reality of Jesus Christ, the formation of the early Church and its role and contributions throughout history, selected readings from Sacred Scripture, and the presence of the Gospels in popular culture. Methods of instruction include lectures, readings, documentaries, and pop culture multimedia. Methods of evaluation include quizzes, tests, essays, research papers, and class participation.

# CATHOLIC II: SCRIPTURE AND POP CULTURE

Credit Type: ETH Credit Value: 0.5

Prerequisites: Catholic I

St. Jerome said, 'Ignorance of Scripture is ignorance of Christ. In this semester class, we will study Sacred Scripture and Salvation History. The student will learn the origins and history of the Bible and learn to interpret Scripture the Catholic way. In the tradition of the Church, we will search for God in all things- including Pop Culture. We will analyze when the culture expresses the Good News and when it does not. Our study will enable us to evaluate and be critical of our culture from a Catholic perspective. The student will come to understand the Bible and be encouraged to integrate Scriptural lessons into his own life. This class will use Sacred Scripture, scriptural study guides, mass media, feature-length movies, novels, and current events. A variety of lectures, classroom discussions, videos, and in-class writing evaluations will be used. Methods of evaluation include quizzes, tests, presentations, papers, and group projects.

# PERSONAL LIFE MANAGEMENT

Credit Type: ELEC Credit Value: 0.5 Prerequisites: None

The aim of this course is to enable students to make well-informed, considered decisions and choices in many aspects of their lives and to develop behaviors and attitudes that contribute to the well-being and respect of self and others, now and in the future. This course aims to help students develop awareness and understanding of how to better manage their personal well-being and their relationships with others. Students will learn how to set realistic goals, establish priorities, and to approach decisions regarding future choices.

# **GUIDED LEARNING**

Credit Type: ELEC Credit Value: 0.5 Prerequisites: None

The Guided Learning class seeks to help students better understand their individual learning abilities and style. The course's primary focus is to broaden students' strengths and use them to minimize what causes them to struggle academically. In class, students set goals based on their specific areas of need, typically in the areas of study skills, time management, test taking, written expression, and/or reading comprehension. Students incorporate these learning and study strategies in the context of coursework from their academic classes. Enrollment to this course is only upon faculty/admin approval.

# LITERACY

Credit Type: ELEC Credit Value: 0.5 Prerequisites: None

Students enrolled in Literacy will improve their reading, note-taking, essay planning, writing, proof-reading and critical thinking skills. Lessons on these skills will be taught through interesting articles and topics including "Antibiotic Resistance", "Tackling Dyslexia in Children", "The Secret World of Polar bears", and "All in the Mind". These varied and interesting topics will broaden vocabulary as well as create the need for critical thinking. These skills will provide a solid foundation in preparation for the reading and writing requirements for all courses in high school. Enrollment to this course is only upon faculty/admin approval.

#### **JOURNALISM**

Credit Type: ELEC Credit Value: 1.0 Prerequisites: None

The St. Mary's Journalism Program is a year-long graded course which introduces students to the role, and importance, of independent and ethical journalism in a free democratic society. The course promotes media literacy and concise writing. Students develop the ability to conduct interviews, collect information, and do research--both individually and as a team. Students are responsible for producing and maintaining the school online newspaper, called The Diplomat. It is a student-led and collaborative publication focused on creating high quality content. There are no prerequisites for the course and it is open to all students in the high school.

# **IB DIPLOMA CORE**

Credit Type: ELEC Credit Value: 1.0 Prerequisites: None

The IB Diploma Core gathers the three components that an IB Diploma student must pass in order to obtain the full IB DIploma. This includes: TOK (Theory of Knowledge), CAS (Creativity, Activity & Service) and the Extended Essay. The class time is distributed in the following way: 70% TOK, 15% CAS and 15% Extended Essay. TOK aims at developing critical thinking skills and to tease the students' curiosity for the complexity of knowledge in all domains. By the end of the course, the students should be able to approach any kind of real life situation with a critical reflection supported by adequate conceptual scaffolding. CAS aims at developing balanced IB learners as well as raising their awareness of the world around them and how they can make a difference out there. The Extended Essay is a supervised individual piece of research leading to a 4,000 word essay externally assessed by the IBO. More information can be found in the IBDP curriculum page.

# SUPERVISED STUDY PERIOD

Credit Type: NON
Credit Value: 0
Prerequisites: None

The supervised study period is an opportunity for students to spend time with a qualified teacher to work on class requirements and develop writing skills.

Note Not available to Grade 9.



# PHYSICAL EDUCATION COURSES

# PHYSICAL EDUCATION

Credit Type: PE Credit Value: 0.5 Prerequisites: None

Students will be exposed to a variety of activities designed to give them an appreciation for the physical activity options open to them. These activities will be pursued in the pool, the gymnasium, the playing field, and tennis courts. The activities may include middle distance running, combatives (e.g. wrestling), team sports/activities (e.g. basketball), rhythms, individual sports/activities (e.g. badminton), aquatics, self-testing, general strength and conditioning. Students will also be expected to gain a workable understanding of the rules governing the various games and activities. The course will be graded on a pass/fail basis and the heavy emphasis will be on an energetic conformity to the goals and rules of the class. This conformity includes the dress code in effect for all physical education classes.

#### STRENGTH AND MOVEMENT

Credit Type: PE Credit Value: 0.5 Prerequisites: None

Strength and Movement is designed to give students a basic understanding of and appreciation for strength training as well as for cardiovascular fitness. Throughout the course of the semester students will be exposed to many different training principles, benefits of strength training and current training issues. Some issues of importance include: basic muscle physiology (including bone, muscle, and connective tissue), proper warm-up (including flexibility and stability), training methods and modes (including safety issues and spotting), nutritional factors in performance and health, basic cardiovascular and respiratory anatomy and physiology, psychological benefits of exercise, as well as many more.

# **AQUATICS FITNESS, SPORTS AND SAFETY**

Credit Type: PE Credit Value: 0.5

Prerequisites: Competent swimmer

This course has a number of aquatics related goals which include: Out of water fitness training including poolside circuit training, in water fitness training including high intensity interval training (HIIT) swim sport training including race starts, turns, pacing, goal-time setting, stroke technique, water polo sport training including game theory, positioning, passing, shooting, blocking, and safety in the aquatic environment including awareness of potential hazards, familiarity of safety equipment, and victim assist techniques.