

# International School of Qingdao

## High School Course Catalog 2019-2020

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## 1.0 High School Information

### 1.1 Graduation Requirements

24 high school credits are required for graduation. One-half credit is given for each full semester of a course successfully completed in grades 9 through 12. A failing grade (below 60%) does not earn any credit. The following credits must be earned towards graduation:

Table 1.1. Required Departmental Credit for Graduation

Credits	Subject Area
4	English Language Arts
3	Social Studies (required Economics ½ credit or AP Economics credit)
3	Sciences
3	Mathematics
3	Philosophies (see requirements in 2.5)
2	Foreign Languages (suggested two years of one language)
1	Fine Arts
2	Physical Education (see requirements in 2.8)
Additional credits can be earned through elective options.	

### 1.2 Grading Scale and Grade Point Average

Most courses assign numerical grades. Numerical grades are then converted to GPA points, which are averaged together to determine overall high school GPA. See table 1.2 to see numerical grade to GPA point determinations.

Table 1.2. Grading Scale and GPA Configuration

Numerical grade	Letter grade	GPA points
98-100	A+	4.000
92-97	A	4.000
90-91	A-	3.667
88-89	B+	3.333
82-87	B	3.000
80-81	B-	2.667
78-79	C+	2.333
72-77	C	2.000
70-71	C-	1.667
68-69	D+	1.333
62-67	D	1.000
60-61	D-	0.667
Below 60	F	0.000

Students may choose to repeat a course in which they have received an unsatisfactory score. Only the higher score will be counted toward overall GPA. A student's record will show all courses a student has taken.

High school students may transfer credits from other recognized schools. Any number of courses may be transferred as long as the student received a minimum of a C. Grades below a C will not be transferred. A student's GPA will be calculated only from courses taken at ISQ.

### 1.3 Independent Studies

Students are only eligible for independent studies if they have completed all the coursework offered by the school in that subject area. Independent studies must be approved by the Secondary Principal of Teaching and Learning with consultation from the appropriate departmental HOD.

### 1.4 Honors Courses

Honors classes parallel the curriculum offered in the corresponding regular classes but may cover additional topics of study, move at a faster pace, and/or cover topics in greater depth. Students will receive 0.333 additional grade points for grades of C- or higher in honors courses. Students may only take honors classes as they are available and if they have met prerequisite requirements, including having received a teacher recommendation from a teacher in the subject area.

### 1.5 Advanced Placement (AP) Courses

AP courses are designed to prepare students to take the College Board AP exams in May. These national curricula are developed by both high school and college teachers in order to teach College Board AP standards. AP courses are designed to provide an additional challenge for students wishing to learn more about a specific subject area. Furthermore, they are taught at the rigor level and expectations of a first-year university course. Most colleges and universities in the United States will even grant college credit for qualifying AP scores. However, AP is not appropriate for everyone, and students enrolled in them should expect a much heavier workload and more stringent grading. More information about the official AP program can be found on the College Board [website](#).

Students will receive 0.667 additional grade points for grades of C- or higher in AP courses. Students enrolled in AP courses are eligible (and highly encouraged) to take the corresponding College Board AP exams in May and for whom test fees will be paid by the school. However, if a student chooses to take an AP test for a class in which s/he is not enrolled, s/he must pay for related exam and administration fees. The practice of self-studying and taking exams for AP courses that ISQ offers is highly discouraged.

Students wishing to take AP courses should meet the following criteria:

- Demonstrate academic promise in the subject area by having earned at least a B- in the prior class taken in the subject area
- Receive a recommendation from a teacher in the corresponding subject area
- Have an overall GPA of 2.667
- Typically, have demonstrated a high competency in spoken and written English as well as reading comprehension

Due to the rigorous requirements of AP courses, students are to take no more than three AP courses simultaneously. If students are heavily involved in athletics or other extracurricular activities, fewer than three AP courses may be appropriate.

Exceptions to these criteria are considered on a student-by-student basis by the Secondary Principal of Teaching and Learning. Students most likely to receive an exception to take four APs are those who have earned a 93 in all their classes and will not be enrolled in an academy during the school year. Students most likely to

receive an exception to take five APs are those who have earned a 97 in all their classes and will not be enrolled in an academy during the school year.

## 1.6 AP International Diploma (APID)

An additional offering for students applying to universities outside of the United States is called the AP International Diploma (APID). The APID helps a student demonstrate their willingness and ability to take college-level academic courses and is a globally recognized certificate for students with an international outlook. Universities worldwide utilize the APID in admissions. AP teachers, counselors, parents, and students may search the AP International Recognition database for universities that acknowledge the APID.

Students do not need to apply for the APID because it is automatically awarded to students who meet the following eligibility requirements:

- Score a 3 or higher on 5 or more AP exams representing the following content areas:
  - Content Area 1: Language and World Languages (such as AP English Language, AP English Literature, and AP Chinese)
    - Any two eligible AP world language or English exams if the exams are across two different languages OR
    - Any one AP world language or English exam AND a letter of proficiency in a language not available as an AP Exam AND one additional AP exam (cannot be English or a world language)
  - Content Area 2: Global Perspectives (such as AP World History, AP Macroeconomics, and AP Comparative Government)
  - Content Area 3: Sciences and Mathematics (such as AP Chemistry, AP Calculus, and AP Computer Science A)
  - Content Area 4: Additional AP Subjects such as Fine Arts (such as AP Studio Art) or an additional exam from Content Areas 2 or 3
- Attend a school outside the United States or its territories

Find more information and qualifying details about the APID on the College Board [website](#). The APID is not a substitute for a high school diploma, but rather provides additional certification of outstanding academic excellence.

While students planning to attend universities in the United States will not find the APID useful, there are other valuable awards from College Board in which ISQ students may be interested including the following:

- AP Scholar, granted to students who receive scores of 3 or higher on three or more AP exams
- AP Scholar with Honor, granted to students who receive an average grade of at least 3.25 on all AP Exams taken, and grades of 3 or higher on four or more of these exams.
- AP Scholar with Distinction, granted to students who receive an average grade of at least 3.5 on all AP Exams taken, and grades of 3 or higher on five or more of these exams.
- AP International Scholar, granted to the one male and one female student attending an American international school that is not a DoDEA school outside the U.S. and Canada with the highest average grade on the greatest number

of AP Exams. The minimum requirement is a grade of 3 or higher on three exams.

Find more information and qualifying details about these and other AP awards on the College Board [website](#).

## 1.7 Academic Planning

In the spring of each school year, students have the opportunity to request enrollment in courses offered for the following school year. Students are not guaranteed that they will be enrolled in all classes requested. Courses' enrollment limitations are set by the instructors with approval by the Secondary Principal of Teaching and Learning. Priority for student requests changes depending upon the course, though graduation requirements is typically considered the highest priority in determining course enrollment.

When making course requests, students should keep in mind the graduation requirements. While ISQ does not guarantee enrollment in all requested courses, ISQ does ensure that students will have the opportunity to take classes that will fulfill graduation requirements. The following table serves as an example for a sample four-year graduation plan. See the **Appendix 1** to find a "Course Map Template."

Table 1.7. Sample Gradation Plan

Requirements	Grade 9	Grade 10	Grade 11	Grade 12
<b>English</b> (4 credits)	English I	English II	English III	English IV
<b>Social Studies</b> (3 credits)	Modern World History	Cont. World History ½, Culture, Society, Identity ½	AP Economics	AP Human Geography
<b>Science</b> (3 credits)	Biology	Chemistry	AP Chemistry	AP Physics I
<b>Mathematics</b> (3 credits)	Algebra 2	Honors Pre-Calculus	AP Calculus	Advanced Calculus
<b>Philosophy</b> (3 credits)	Introduction to Philosophy	Advanced Philosophy	Truth in Arts ½	Worldview Survey and Development
<b>Language</b> (2 credits)	Chinese Beginner	Chinese Intermediate		
<b>P.E.</b> (1.5 credits)	PE	PE ½		
<b>Health</b> (.5 credits)		Health ½		
<b>Fine Arts</b> (1 credit)			High School Art	
<b>Elective</b>	Transition	AP Biology	Movie Production ½	Senior Seminar
<b>Elective</b>			Journalism	Journalism
<b>Elective</b>				
<b>Total Credits</b> (24 required)	8	8	7	7

Regarding course load requirements, no student may be enrolled in more than eight credits simultaneously at ISQ. Grades 9 through 11 students must take at least seven credits per semester. Grade 12 students must take at least six credits per semester. Students will be assigned to specific areas during periods in which they are not enrolled in a course; this time is referred to as Study Hall. Students with heavy course loads that include honors and AP courses are encouraged to schedule

Study Hall(s) in order to have dedicated time to work on homework assignments and school projects. No credit is given for study hall; however, attendance and regular school requirements apply.

Students wishing to enroll in multiple courses in the same department (e.g. two maths or two sciences) in the same school year must seek permission from the appropriate Heads of Department(s).

## 2.0 Course Descriptions

### 2.1 English Language Arts (4 credits)

#### English I 0101

1 ELA Credit (Grade 9 Requirement)

Prerequisites: None

English I exposes students to a blend of contemporary and classic literature and informational texts that help them to gain an understanding of the importance of feeling empathy for others, assuming the responsibilities of leadership, pursuing dreams, and recognizing the power of love. Exploration of these thematic concepts is paired with instruction and learning opportunities designed to help students demonstrate proficiency of Grade 9-10 [AERO standards](#), which are divided into four strands (Reading, Writing, Listening and Speaking, and Language Foundations) and advocates 21<sup>st</sup> Century college and career readiness.

#### English II 0201

1 ELA Credit (Grade 10 Requirement)

Prerequisites: English I credit or equivalent

English II exposes students to a blend of contemporary and classic literature and informational texts that help them to consider how much control we, as well as technology, exert over our lives as well as what we share and gain through interaction with others. Exploration of these thematic concepts is paired with instruction and learning opportunities designed to help students demonstrate mastery of Grade 9-10 [AERO standards](#), which are divided into four strands (Reading, Writing, Listening and Speaking, and Language Foundations) and advocates 21<sup>st</sup> Century college and career readiness.

#### English III 0215

1 ELA Credit (Grade 11)

Prerequisites: English II credit or equivalent

English III exposes students provide students with a blend of (primarily American) contemporary and classic literature and informational texts from early colonial times to the 21<sup>st</sup> century in which students contemplate the historical roles of identity, individualism, society, and love. Exploration of these thematic concepts is paired with instruction and learning opportunities designed to help students demonstrate proficiency of Grade 11-12 [AERO standards](#), which are divided into four strands (Reading, Writing, Listening and Speaking, and Language Foundations) and advocates 21<sup>st</sup> Century college and career readiness.

## English IV

0216

1 ELA Credit (Grade 12)

Prerequisites: Grade 11 ELA credit

English IV exposes students provide students with a blend of (primarily British) contemporary and classic literature and informational texts spanning from the Anglo-Saxon Period to the Modern Age in which students contemplate the influence of British literary movements, writing styles, and philosophical ideas. Thematic studies will consider heroism, humanism, and intellectual and emotional enlightenment. Exploration of these thematic concepts is paired with instruction and learning opportunities designed to help students demonstrate mastery of Grade 11-12 [AERO standards](#), which are divided into four strands (Reading, Writing, Listening and Speaking, and Language Foundations) and advocates 21<sup>st</sup> Century college and career readiness.

## AP English Language and Composition

0405

1 ELA Credit (Grades 11 and 12)

Prerequisites: Criteria outlined in 1.5 (English II, English II, or AP English Literature)

From the [AP English Language and Composition Course and Exam Description](#), this college-level course focuses on the development and revision of evidence-based analytic and argumentative writing, the rhetorical analysis of nonfiction texts, and the decisions writers make as they compose and revise. Students evaluate, synthesize, and cite research to support their arguments. Additionally, they read and analyze rhetorical elements and their effects primarily in nonfiction texts—including images as forms of text— from a range of disciplines and historical periods. This course aligns to an introductory college-level rhetoric and writing curriculum.

Note: Offered in even-odd (e.g. 2018-2019) school years

## AP English Literature and Composition

0403

1 ELA Credit (Grades 11 and 12)

Prerequisites: Criteria outlined in 1.5 (English II, English II, or AP English Language)

From the [AP English Literature and Composition Course and Exam Description](#), this college-level course focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) from various periods. Students engage in close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. This course aligns to an introductory college-level literature and writing curriculum.

Note: Offered in odd-even (e.g. 2019-2020) school years

## AP Seminar

0409

½ ELA Credit; ½ Elective Credit (Grades 11 and 12)

Prerequisites: Criteria outlined in 1.5 (English II, III or AP English)

From the [AP Seminar Course and Exam Description](#), Seminar, the first course in the AP Capstone experience, is a foundational college-level course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an

inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary, and artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

Note: Students with a score of 90 or above in all of their classes may be granted permission to take AP Seminar as a fourth AP.

Additional note: Only offered with teacher availability AND adequate student interest

### **AP Research**

0408

½ ELA Credit; ½ Elective Credit (Grade 12)

Prerequisites: Criteria outlined in 1.5; AP Seminar exam score of 3 or above

From the [AP Research Course and Exam Description](#), Research, the second course in the AP Capstone experience, is a college-level course that allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio, paper, and presentation with an oral defense.

Note: Students with a score of 90 or above in all of their classes may be granted permission to take AP Research as a fourth AP.

Additional note: Only offered with teacher availability AND adequate student interest

## **2.2 Social Studies (3 credits)**

Note: Students must earn either Economics ½ credit or AP Economics credit

### **Modern World History**

3309

1 Credit (Grade 9 Requirement)

Prerequisites: None

Modern World History is a survey course designed to delve into highlights of world history from about A.D. 1000 to 1900. While it is impossible to adequately discuss the history of the entire world in the course of one year, this course is designed to give a framework to understand the specifics of world history and a curiosity to drive future learning. Students will examine major trends and ideas that have shaped the human experience as we focus on key skills students will use throughout their lives to research, evaluate evidence, construct arguments, contextualize events, and respectfully critique others.

### **Contemporary Global History**

3307

½ SS Credit (Grade 10 Requirement unless enrolled in AP World History)

Prerequisites: Modern World History credit or equivalent

Contemporary Global History is an interactive history course intended to be a wake-up call to the character of the world in which we live, its challenges and possibilities, and the forces which have shaped it and which continue to shape it. The course consists of a seminar format, emphasizing student discussion based on extensive reading, making use of current events and film. Students will develop their skills of historical analysis in order to examine the key

events of the past century, including the World Wars, the Cold War, Decolonization, Globalization, and Religious Movements.

**Culture, Society, Identity** 3308

½ SS Credit (Grade 10 Requirement unless enrolled in AP World History)

Prerequisites: Modern World History credit or equivalent

Physical and human geography plays a role in shaping every society throughout human history. In this course, students will be introduced to many of the recurring themes present in societies across time and space. Individual case studies will be used to explore the concepts such as conflict and cooperation and movement of people and place. Case studies may vary from year to year. Students will also explore the unfortunate and persistent theme of racism. Finally, the course will include a study of identity development among third culture kids.

**Economics** 3424

½ SS Credit (Grades 10, 11, and 12)

Prerequisites: Demonstrated understanding of Algebra I

Economics is a semester-long course that will cover both microeconomic and macroeconomics concepts and theories. This is a rewarding course designed to help students understand the supply and demand world in which they dwell. Students in this course will develop their understanding of the economic principles and choices that shape the economic activities of the world while also developing their thinking and problem-solving skills. While this class will incorporate a wide variety of activities, the course will contain a large selection of simulations and activities to help the students apply economic principles.

Note: Students must earn Economics ½ credit or AP Economics credit to graduate.

**Government & Citizenship** 3401

½ SS Credit (Grades 10, 11, and 12)

Prerequisites: Typically, Modern World History credit or equivalent

The Government & Citizenship course introduces students to many of the fundamental concepts surrounding political organization and rulership. Students complete a survey of basic government concepts along with an analysis of two differing types of government systems. Contemporary case studies are used to help develop student critical thinking, analysis, and evaluation.

**U.S. History** 3301

½ to 1 SS Credit (typically, only available when other SS credits are not attainable)

Prerequisites: Approval from Secondary Principal of Teaching and Learning

The first semester of this course introduces students to the Age of Exploration through the Reconstruction Era. The second semester of this course allows students to further study the Reconstruction Era through modern history.

Note: Typically, only offered as monitored independent study

**AP World History** 3202

1 SS Credit (Grade 10; typically, available to Grades 11 and 12)

Prerequisites: Criteria outlined in 1.5 (Modern World History and English I or II)

From the [AP World History Course and Exam Description](#), this course investigates significant events, individuals, developments, and processes from 1200 to the

present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation.

Note: Sophomores taking AP World History may not concurrently take AP Biology

### **AP Comparative Government**

3430

1 SS Credit (Grades 11, and 12)

Prerequisites: Criteria outlined in 1.5 (Grade 10 SS credit and English II)

The course uses a comparative approach to examine the political structures; policies; and political, economic, and social challenges of six selected countries: China, Iran, Mexico, Nigeria, Russia, and the United Kingdom. Students compare the effectiveness of approaches to many global issues by examining how different governments solve similar problems. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments.

Note: Only offered with teacher availability AND enough student interest

### **AP Economics**

3414

1 SS Credit (Grades 11 and 12)

Prerequisites: Criteria outlined in 1.5 (Grade 10 SS credit and English II)

AP Economics is a course consisting of a semester-long study of AP Microeconomics and a semester-long study of AP Macroeconomics, each of which are equivalent to a one-semester introductory college course in economics. From the [AP Microeconomics Course and Exam Description](#), this portion of the course is a college-level introduction to the principles of economics that apply to the functions of individual economic decision-makers. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. From the [AP Macroeconomics Course and Exam Description](#), this portion of the course is a college-level introduction to the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination. It also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.

Note: Students must earn Economics ½ credit or AP Economics credit to graduate.

### **AP Human Geography (3431)**

1 SS Credit (Grades 10,11, and 12)

Prerequisites: Criteria outlined in 1.5 (Grade 10 SS credit and English II)

The AP Human Geography course is an equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped the human understanding, use, and

alteration of the Earth's surface. Student employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences. They also learn about the methods and tools that geographers use in the research and application of the findings.

Note: Only offered with teacher availability AND enough student interest

## 2.3 Sciences (3 credits)

Note: Most universities in the United States require three laboratory science credits and a fourth science credit

Additional note: Students wishing to enroll in multiple math courses in one year must seek permission from the appropriate Heads of Department(s)

### **Biology** 2201

1 Science Credit (Grade 9 Requirement)

Prerequisites: None

This one-year laboratory science course is devoted to the study of living systems. It also covers the study of relationships amongst organisms and the interaction of organisms and their environment. Specific topics include the scientific method of inquiry, cell structure and function, cell chemistry, genetics, reproduction and development, evolution, comparative anatomy, and ecology. Exploration of these concepts is paired with instruction and learning opportunities designed to help students demonstrate mastery of Biology [AERO standards](#) and paired with [Next Generation Science Standards](#).

### **Chemistry** 2301

1 Science Credit (Grade 10 Recommended Credit)

Prerequisites: Demonstrated understanding of Algebra I

This one-year laboratory science course is designed to introduce students to a broad base of general chemical concepts while relating chemistry to real life experiences. The basic concepts include scientific measurement, the history of atomic discovery, bonding, chemical nomenclature, reactions, the kinetics of matter, solutions, and acid and base chemistry. Students are introduced to laboratory techniques as they learn to use the scientific method to make chemistry useful and meaningful. Exploration of these concepts is paired with instruction and learning opportunities designed to help students demonstrate mastery of Chemistry [AERO standards](#) and paired with [Next Generation Science Standards](#).

### **Physics** 2401

1 Science Credit (Grades 10, 11, and 12)

Prerequisites: Algebra II credit OR concurrent enrollment in Algebra II

This one-year laboratory science course is a trigonometric-based study of physical phenomena that will serve as a foundation for understanding the science and technology that shape society. Selected topics of study include mechanics, thermodynamics, waves, electrostatics, electric circuits, geometric and physical optics, and modern physics. Exploration of these concepts is paired with instruction and learning opportunities designed to help students demonstrate mastery of Physics [AERO standards](#) and paired with [Next Generation Science Standards](#).

**AP Biology** 2203

1 Science Credit

Prerequisites: Criteria outlined in 1.5 (Biology and English I) AND have earned at least a B- in Chemistry OR be concurrently enrolled in Chemistry

From the [AP Biology Course and Exam Description](#), this college-level laboratory science course cultivates students' understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions.

Note: Sophomores taking AP Biology may not concurrently take AP World History

**AP Chemistry** 2303

1 Science Credit

Prerequisites: Criteria outlined in 1.5 (Chemistry and Algebra II)

From the [AP Chemistry Course and Exam Description](#), this college-level science course cultivates students' understanding of chemistry through inquiry-based investigations, as they explore content such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium.

**AP Physics** 2403

1 Science Credit

Prerequisites: Criteria outlined in 1.5 (Geometry) and concurrent enrollment or completion of Algebra II AND Pre-Calculus

From the [AP Physics 1 Course and Exam Description](#), this is a college-level, algebra-based science course that cultivates students' understanding of physics through inquiry-based investigations as they explore topics such as: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque and rotational motion, electric charge and electric force, DC circuits, and mechanical waves and sound.

Note: Only offered with teacher availability AND enough student interest

**AP Computer Science A** 6109

1 Science Credit (Grades 10, 11, and 12)

Prerequisites: Criteria outlined in 1.5 (Algebra II)

From the [AP Computer Science A Course and Exam Description](#), this college-level course introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

Note: Offered in odd-even (e.g. 2019-2020) school years

Additional note: AP Computer Science A is not a laboratory science course

## **AP Computer Science Principles**

6113

1 Science Credit (Grades 10, 11, and 12)

Prerequisites: Criteria outlined in 1.5 (Algebra II OR concurrent enrollment in Algebra II)

From the [AP Computer Science Principles Course and Exam Description](#), this college-level course helps students develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems, and will discuss and write about the impacts these solutions could have on their community, society, and the world.

Note: Offered in even-odd (e.g. 2018-2019) school years

Additional note: AP Computer Science Principles is not a laboratory science course

## **2.4 Mathematics** (3 credits)

Note: Many universities in the United States encourage three math credits

Additional note: Students wishing to enroll in multiple math courses in one year must seek permission from the appropriate Heads of Department(s)

## **Geometry**

1102

1 Math Credit (Grade 9)

Prerequisites: Demonstrated understanding of Algebra I

This course studies coordinate geometry with the goal of demonstrating its connection to higher mathematics as applied in the context of real-life problems. Specific topics studied will include reasoning and proof, similarity and congruence, geometric constructions, plane figures, three-dimensional figures, area, surface area, and volume. This course will also include continual study in right triangle trigonometry, probability, and algebra. Technology will be used to expand these topics and to assist students in visualizing abstract geometric concepts.

## **Algebra II**

1201

1 Math Credit (Grades 9 and 10)

Prerequisites: Geometry credit

This course offers an expansion of foundational topics introduced in Algebra 1 and provides opportunities to apply understanding to problems that require higher-order thinking skills. Additional topics will also be introduced in a variety of methods. Fundamental skills of mathematics will be applied to such topics as functions, linear equations and inequalities, quadratics and polynomial equations, conics, logarithmic and exponential relationships, and discrete math including probability and statistics. Technology will be used to introduce and expand upon the areas of study listed above, including computers and graphing calculators.

## **Pre-Calculus**

1301, 1302

1 Math Credit (Grades 10, 11, and 12)

Prerequisites: Algebra II credit

This course offers an exploration of topics such as understanding functions from symbolic, tabular, and graphical perspectives; functions and their compositions; inverses and transformations; linear and polynomial functions; rational relations; trigonometry; conic sections; polar and complex numbers; logarithmic and exponential relations; and discrete math including probability. Additionally, a unit on preparation for calculus is introduced, including an introduction to limits, differentiations and integration with the goal of preparing students who may wish to take AP Calculus.

Note: Pre-Calculus and Honors Pre-Calculus typically taught in the same class (see 1.4)

## **Introduction to Statistics**

1601

1 Math Credit (Grades 10, 11, and 12)

Prerequisites: Algebra II credit

This course begins with descriptive statistics: analysis of 1 or 2 categorical or quantitative variables. Methods of obtaining data are introduced, including sampling and experimental design. Probability is introduced, beginning with basic rules, and advancing to discrete and continuous distributions, with a strong focus given to normal models. Once established, probability serves as a bridge to inferential statistics for proportions, means, and frequencies of categorical variables. Students will also demonstrate understanding through the use of technology.

Note: Only offered with teacher availability AND enough student interest

## **AP Statistics**

1501

1 Math Credit (Grades 11 and 12)

Prerequisites: Criteria outlined in 1.5 (Honors Pre-Calculus OR concurrent enrollment in Honors Pre-Calculus)

From the [AP Statistics Course and Exam Description](#), this college-level course introduces students to the concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes evident in the content, skills, and assessment in the AP Statistics course: exploring data, sampling and experimentation, probability and simulation, and statistical inference. Students use technology, investigations, problem solving, and writing to reveal understanding.

## **AP Calculus**

1402

1 Math Credit (Grades 11 and 12)

Prerequisites: Criteria outlined in 1.5 (Honors Pre-Calculus)

AP Calculus is a college-level course consisting of a semester-long study of AP Calculus AB and a semester-long study of AP Calculus BC. From the [AP Calculus AB and BC Course and Exam Descriptions](#), this course is divided into two primary divisions: differentiation and integration. Topics studied in differentiation include continuity, limits, the basis and application of differentiation, curve sketching, motion, optimization, implicit differentiation and related rates. For integration, topics include riemann sums and definite integrals, integration methods including u-substitution, integration by parts, and trig substitution, and other miscellaneous

topics such as the fundamental theorem of calculus, the mean value theorem, areas and volumes of revolution and cross sections and differential equations.

### **Advanced Calculus**

1408

1 Math Credit (Grades 11 and 12)

Prerequisites: Criteria outlined in 1.5 (AP Calculus); AP Calculus BC exam score of 5

This course is an introduction to multivariable calculus. The course begins with vectors, vector-valued functions, velocity, acceleration, unit tangent vectors, arc length, and curvature. Functions of two and three variables are then introduced, along with continuity, partial differentiation, the chain rule, directional derivatives and Lagrange multipliers. The next focus is on multiple integration over Cartesian and polar domains, moments, triple integrals, and substitutions. Additional topics include: differential equations, linear algebra, and vector fields.

Note: Only offered with teacher availability AND enough student interest

Additional note: Honors-level course (see 1.4)

### **2.5 Philosophies** (Credit requirements under review)

- **For those graduating in or before the 2021-2022 school year, .5 credit per semester enrolled at ISQ**
- **For those graduating after 2021-2022 school year, credit requirements being determined though Grade 9-level Philosophy course required for all freshmen in 2019-2020 school year**

Note: Philosophy courses are currently being revised and the courses listed below represent courses that are currently being developed as a part of this departmental update

Additional note: Not all classes offered every year, especially in transitional period

### **Introduction to Philosophy**

7105

1 Philosophy Credit (Grade 9 Requirement; Grades 10 and 11)

Prerequisites: None

Students will develop an understanding of basic philosophical methods and ideas, including their origins and relevance; solve philosophical problems and explore the philosophy expressed in ancient wisdom literature; and build and defend foundational arguments related to philosophy.

### **Applied Ethics**

7506

½ Philosophy Credit (Grades 10 and 11)

Prerequisites: None

Students will examine contemporary ethical issues from different points of view, with an emphasis on the biblical perspective. Students will research the issues to determine what they believe and why they believe it.

Note: Also referred to as Contemporary Issues and Ethics in transitional period

### **Advanced Philosophy**

7305

½ Philosophy Credit (Grades 10, and 11)

Prerequisites: None

Students will examine contemporary ethical issues from different points of view, with an emphasis on the biblical perspective. Students will research the issues to determine what they believe and why they believe it.

**Worldview and Popular Culture** 7504

½ Philosophy Credit (Grades 10 and 11)

Prerequisites: None

Students will investigate philosophical themes within expressions from popular culture. Concepts such as beauty, intelligence, justice, and others will be discussed through the lenses of film, television, social media, and other artistic forms. Students will critique these expressions as they examine their own personal worldview.

Note: Also referred to as Truth in Arts in transitional period

**Worldview Survey and Development** 7401

½ Philosophy Credit (Grade 12 Requirement)

Prerequisites: None

Students will analyze major worldviews and religions using a critical and comprehensive approach. The goal is to seek truth and evaluate for internal logical consistency. Ultimately, students will fully explore their own personal worldview, articulate it clearly, and defend it before an audience.

Note: Also referred to as Understanding the Times in transitional period

**2.6 Foreign Languages** (2 credits; suggested both credits in one language)

Note: Students who earn a five on the AP Chinese test or passes HSK 5 or HSK 6 may receive 2 foreign language credits. A passing score on the HSK 4 will earn the student 1 foreign language credit. A maximum of 2 foreign language credits can be earned this way.

Additional note: Students taking Chinese classes are given proficiency tests each year to determine appropriate course placement

**Chinese Beginner/Intro Level** 4102

1 Foreign Language Credit

Prerequisites: None

This course is designed to help students learn the basics of Chinese language and to be able to communicate at a survival level. Easy characters will also be introduced. This is very practical course, equipping students with basic language skills.

**Chinese Intermediate Level** 4103

1 Foreign Language Credit

Prerequisites: proficiency test placement OR Chinese Intro Level credit

This course is designed to strengthen students' Chinese language ability. Pin Yin is only served as reference and students are expected to recognize intermediate Chinese vocabulary. Students will also be required to research information and present their projects in Chinese.

**Chinese Advanced Level** 4104

1 Foreign Language Credit

Prerequisites: proficiency test placement OR Chinese Intermediate Level credit

This course focuses on Chinese literature. In this course students will study a variety of literary genres including short stories, drama, poetry, essays, novels, and classical Chinese literature. Students will also be required to compose written pieces themselves.

## **AP Chinese**

4402

1 Foreign Language Credit

Prerequisites: Criteria outlined in 1.5

From the [AP Chinese Language and Culture Course and Exam Description](#), this college-level course in Chinese emphasizes communication (understanding and being understood) by applying interpersonal, interpretive, and presentational skills, including vocabulary usage, language control, communication strategies, and cultural awareness. The course strives not to overemphasize grammatical accuracy at the expense of communication. The course is taught almost exclusively in Chinese and engages students in an exploration of culture in both contemporary and historical contexts and fosters awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

Note: Priority given to non-native Chinese speakers and typically based on graduation requirements

## **Honors Chinese for Native Speakers**

4405

1 Foreign Language Credit

Prerequisites: proficiency test placement OR AP Chinese credit

This course is the highest level Chinese course offered and is designed for near-native level Chinese speakers and teaches students to study famous Chinese literature and ancient poetry; to write, create and produce quality work that can be published in and outside school; and to be familiar with Chinese culture such as history, geography, architecture, drama and nationality. Students in this course will be involved in developing and/or leading various school-wide activities that promote Chinese culture and contribute to the community, such as translating scripts for theatrical productions into Chinese and/or interpreting should the need arise. The most important assignment of this course is to compile and edit the ISQ Chinese annual magazine.

Note: Honors-level course (see 1.4)

## **Korean I**

4501

1 Foreign Language Credit

Prerequisites: None

In this course, students will learn and be able to correctly pronounce the Korean alphabet, use basic expressions in their daily lives, understand and express content related to personal and familiar topics, and understand basic words and grammar. Emphasis is placed upon further acquisition of communicative competency through listening, speaking, reading, and writing with accurate sounds and grammar.

Note: Korean I and Korean II typically taught in the same class

Additional note: Only offered with teacher availability AND adequate student interest

## **Korean II**

4502

1 Foreign Language Credit

Prerequisites: Korean 1 credit

In this course, students will continue their studies by learning vocabulary commonly uses in places such as stores, restaurants, banks, etc., as well as exploring the Korean culture as it applies to ordinary life. Emphasis is placed upon further

acquisition of communicative competency through listening, speaking, reading, and writing with accurate sounds and grammar.

Note: Korean I and Korean II typically taught in the same class

Additional note: Only offered with teacher availability AND adequate student interest

## 2.7 Fine Arts (1 credit)

### High School Art 5512

½ Fine Arts Credit

Prerequisites: None

This course is an introduction to fundamental art mediums including drawing and painting. Students will explore these materials as a foundation for creating art. Students will learn a wide variety of techniques from two dimensional shading and value to acrylic painting.

### Advanced High School Art 5513

½ Fine Arts Credit

Prerequisites: HS Art credit and/or recommendation from Fine Arts HOD

This course is an upper level exploration of three essential art mediums: drawing, painting, and mixed media. As they create art, students will expand upon the knowledge gained in HS Art. Students in the advanced class will develop technique and explore their personal voice in art.

Note: HS Art and Advanced HS Art typically taught in the same class

Additional note: Students applying to this class benefit by having a portfolio

### AP Studio Art 5300

1 Fine Arts Credit

Prerequisites: Criteria outlined in 1.5 (typically, Advanced HS Art)

From the [AP Art and Design Program Course and Exam Description](#), this college-level course consists of three different courses and AP Portfolio Exams—AP 2-D Art and Design, AP 3-D Art and Design, and AP Drawing—corresponding to college and university foundations courses. Students may choose to submit any or all of the AP Portfolio Exams. Students create a portfolio of work to demonstrate inquiry through art and design and development of materials, processes, and ideas over the course of a year. Portfolios include works of art and design, process documentation, and written information about the work presented. Students will be required to produce artwork at a strict pace throughout the course and will be guided to deepen their reflection and thought process about their own work. In May, students submit portfolios for evaluation based on specific criteria, which include skillful synthesis of materials, processes, and ideas and sustained investigation through practice, experimentation, and revision, guided by questions. Students may choose to submit any or all of the AP Portfolio Exams.

### Photography and Digital Media 5514

1 Fine Arts Credit

Prerequisites: Approved course application

This course acquaints students with digital forms of expression, which results in the management of the development of the yearbook in the second semester. Students taking this course must demonstrate great responsibility and willingness to develop

skills in photography, foundation digital design (specifically through the Adobe Creative Suite), and, if time permits, web design.

### **High School Choir** 5101

1 Fine Arts Credit

Prerequisites: Approved course application

In this course, students explore the world of music through vocal practice, listening sessions, and discussions on diverse music genres and styles. As they experience the joy of cooperation in a musical setting, students work to improve vocal, sight reading, and harmonizing skills as well as gain an understanding of different kinds of music and set their own definition and value of it, which can enrich their everyday lives. This course also strengthens students' breathing and singing abilities and fosters confidence in stage performance and singing.

Note: Students must complete at least one semester of HS Choir before participating in the festival

### **High School Band** 5155

1 Fine Arts Credit

Prerequisites: Approved course application

HS Band is a course designed for intermediate and advanced players of all orchestral instruments (strings, woodwinds and brass). Students will deepen their musical understanding and strengthen their ability to play as part of an ensemble. In the Fall semester students will perform at the Secondary Christmas Gala. In the Spring they will perform as part of the ISQ Secondary Fine Arts Gala and, in March, woodwind and brass players will participate in the ISC Choral & Band Festival in Tianjin.

Note: Only offered with teacher availability AND adequate student interest

### **Fundamentals of Performing Arts** 5520

1 Fine Arts Credit

Prerequisites: Approved course application/audition

This course exposes students to the various elements and fundamentals of Performing Arts. Students will be introduced to the craft of acting through the performance of improvisation, pantomime and mime, monologues, musical theatre, spoken word performance, directing, scenes, and ensemble projects. The fundamental elements of staging a play (set design, lighting and sound, costuming, makeup, and the role of the director/producer) will also be addressed. Lastly, students will gain an understanding of the history of theatre as well as the varieties of drama. Some performances related to this course will require extracurricular and out-of-school involvement.

Note: Course not offered every year and only offered with teacher availability AND adequate student interest

### **Movie Production** 5206

½ Fine Arts Credit

Prerequisites: Approved course application

At the end of this course, students will know everything they need to be able to produce a short film. During this course, students will collaboratively explore and foundational components of movie production including screenwriting, video camera filming, directing, and editing, which will ultimately result in original student-made

short films that will be submitted to the EARCOS Asia Regional Film Festival. This course requires a great deal of work outside of class and students need to be prepared to give up at least two Saturdays for filming.

## **2.8 Physical Education** (Credit requirements under review)

- **For students graduating in or before the 2021-2022 school year, 1.5 PE credits and .5 Health credit**
- **For students graduating after 2021-2020, 2 integrated PE/Health credits that are being developed**

Note: Only 2 PE credits can be earned in total and can only count toward required PE credits

Additional note: With permission from the Secondary Principals and Athletic Director, students graduating in or before the 2021-2022 school year may apply to receive up to one PE credit not counting toward Health credit through athletics as follows:

- Those who participate in two varsity sports in one year may receive a ½ credit towards required PE credits
- Those who participate in three junior-varsity sports in one year may receive ½ credit towards required PE credits

### **High School Health**

8103

½ Health Credit

Prerequisites: None

In this course, students will gain a broad overview of health topics, while touching on issues important to our everyday lives. Students will also gain an understanding of the interrelatedness of the physical, emotional, social, & intellectual aspects of personal health, while learning basic skills for lifelong good health.

### **High School Physical Education**

8103

½ PE Credit

Prerequisites: None

In this course, the students also learn basic skills in various sports with the intention of allowing students to transfer those skills into different future social settings. A variety of team sports are taught throughout the semester that may include: volleyball, basketball, football (soccer), badminton, floor hockey, handball, rugby, ultimate Frisbee, and track & field. Course grading is based on the student's improvement in physical abilities, class participation, attitude, effort, an end of semester project, and written unit tests. The goal of this course is to foster a personal desire amongst students to make healthy living and exercise a regular part of their lives.

## **2.9 Additional Electives**

### **Transition**

6966

½ Credit (Grade 9 Requirement)

Prerequisites: None

This course helps Grade 9 students transition from middle school to high school. Approximately half of their time in this course will introduce students to important skills such as how to study, manage time, set goals, take notes. The rest of time in this course will be used as a study hall in which students will be given time to work

on homework assignments and school projects. Students will be taught how to develop and expected to manage a digital portfolio in this course.

Note: Although this course only results in ½ credit, the course lasts a full year

### **Senior Seminar**

6995

1 Credit (Grade 12 Requirement)

Prerequisites: None

This course is designed specifically for seniors with the two primary themes being college preparation and life skills application. This course will provide practical opportunities for each student to begin and complete the mechanics of the entire application process within the first semester of the year. The second semester of this course will be devoted to presenting, discussing, researching and applying the “do’s and don’ts” of successful living. Seniors will hear from guest speakers, research and present their potential careers, and develop a portfolio that represents a collection of work that exhibits the student’s efforts and achievements in several areas of their high school education.

Note: ½ credit required in cases of early graduation.

### **Model United Nations**

6203

1 Credit

Prerequisites: Approved application

MUN consists of multiple objectives depending upon students’ experience with the MUN program. First-year students are typically introduced to the MUN program through an exploration of the six major branches of the United Nations, the preparation steps needed for successful participation in MUN conferences, debate structure, public speaking skills, debate styles, and role-playing simulations. Throughout this introductory exploration, students are introduced to globalization and its impact on all parts of the world; current events and their effects on environment, economic development and the complexities surrounding war and peace; and current regional and global alliances and how they influence the domestic and international decision-making processes. Second-year students are typically introduced to leadership in an international setting and peer-teaching opportunities using previously learned skills and knowledge as they delve into important topics and issues that directly correlate with international leadership.

Note: Does not count as a SS credit

### **Model United Nations Leadership Team**

6220

1 Credit

Prerequisites: Approved application

MUN LT requires the student to take all information and skills learned in prior MUN experiences and apply it to every-day life. Students will practice how to lead in an international school working with other international students from all over the globe. In this class, students will be peer-teaching IntroMUN students, leading the MUN club, planning MUNiSC, and completing peer reviews. They will participate in weekly evaluation and planning meetings and will receive grades based on performance in all tasks assigned. Students in this class will be eligible to apply for any MUN conferences. Additionally, some of these students will be in leadership over the MUN program and will be the Secretariat at MUNiSC.

Note: Does not count as a SS credit

## **Applications in Leadership**

9995

1 Credit

**Prerequisites:** Approved application; Member of Student Council or MUN Secretariat

This course is a class for those elected to the ISQ High School Student Council and selected to the MUN Secretariat. In this course, students study leadership theory and apply those theories to their leadership in Student Council, MUN, and other co- and extracurricular activities. Students will work toward developing skills in team building, communication, and event planning as appropriate.

**Note:** Students in this class are expected to attend all events planned by their respective leadership groups (Student Council and/or MUN).

## **Journalism**

5203

1 Credit

**Prerequisites:** Approved application

This course gives students the opportunity to write articles, take photographs, design newspaper pages, edit articles and page designs for the school's monthly to quarterly newspaper, *The Current*. By November, students will be running nearly all aspects of the development of this publication under the teacher's supervision. Daily tasks are set and run by the co-editors who are chosen by the teacher the year before. In the second semester, all students (except those in MUN) will be expected to participate in an off-campus field trip in which they will create several newspapers over the course of three days for the ISC Model United Nations conference (MUNiSC) held in Qingdao. Students may also be required to build and maintain a website.

**Note:** Does not count as an ELA credit

## **Student Aid**

6997

½ Credit (for two semesters of Student Aid experience)

**Prerequisites:** Approved application

Student Aids are assigned to support specified ISQ staff members.

**Note:** Students may not receive more than ½ credit as Student Aid

## **Student Intern**

2214

½ Credit

**Prerequisites:** Approved application

Throughout the duration of a semester, a student will shadow a specified staff member who will serve as a mentor to the student. The student will learn foundational career-readiness skills and demonstrate understanding through practical application. Intern opportunities are offered in various departments of the school whose supervisors have agreed to participate in the Student Intern program. For example, students interested in pursuing a degree or career in lab sciences may apply to be a Science Lab Assistant and students interested in pursuing a degree or career in teaching may apply to be a Teaching Assistant.

**Note:** Students may not receive more than ½ credit as Student Intern

## Appendix: Course Map Template

Student: \_\_\_\_\_ Student ID: \_\_\_\_\_

Enrolled: \_\_\_\_\_ Advisor: \_\_\_\_\_

### Directions

Circle up to one credit in each box below for planning purposes. Students wishing to take multiple classes in a single department (e.g. Chemistry and Biology) should circle one and add the other to an elective box. Additional courses being offered for the following year can be found in the Secondary Course Options Addendum. Students must take class selections that are bolded.

### Handbook Reminders

Regarding enrollment restrictions, no student can be enrolled in more than eight credits per year. All students must be enrolled in at least seven credits per year, except for seniors who must be enrolled in at least six credits. Students wishing to enroll in multiple math and science classes in one year must seek permission from the appropriate Heads of Departments. Students wishing to take AP courses must have demonstrated academic excellence in the subject area and received an appropriate departmental teacher recommendation. Students are limited to taking no more than three AP courses in one year, though exceptions can be made with permission from the Secondary Principal of Teaching and Learning. See the ISQ Secondary Handbook for more details.

Requirements	Grade 9	Grade 10	Grade 11	Grade 12
<b>English</b> (4 credits)	<b>English I</b>	<b>English II</b>	English III AP English Literature * AP English Language **	English IV AP English Literature * AP English Language **
<b>Social Studies</b> (3 credits)	<b>Mod. World Hist.</b>	<b>Cont. Hist. ½</b> <b>Culture, Society, Identity</b> ½ <b>AP World History</b>	Economics ½ Government ½ AP Economics AP Human Geo* AP Comparative Gov**	Economics ½ Government ½ AP Economics AP Human Geo* AP Comparative Gov**
<b>Science</b> (3 credits)	<b>Biology</b>	<b>Chemistry</b> AP Biology	Physics AP Biology AP Chemistry AP Physics 1	Physics AP Biology AP Chemistry AP Physics 1
<b>Mathematics</b> (3 credits)	Geometry Algebra 2	Algebra 2 Pre-Calculus Intro to Statistics	Pre-Calculus Intro to Statistics AP Statistics AP Calculus	Intro to Statistics AP Statistics AP Physics AP Calculus
<b>Philosophy</b> (.5 per sem)	<b>Intro to Philosophy</b>	Adv. Phil. ½ Applied Ethics ½ Truth in Art ½	Adv. Phil. ½ Applied Ethics ½ Truth in Art ½	<b>W.V. Survey &amp; Development</b>
<b>Language</b> (2 credits)				
<b>P.E.</b> (1.5 credits)				
<b>Health</b> (.5 credits)				
<b>Fine Arts</b> (1 credit)				
<b>Elective</b>	<b>Transition</b> (½ credit; full year class)			<b>Senior Seminar</b>
<b>Elective</b>				
<b>Elective</b>				
<b>Total Credits</b> (24 required)				

\* Course typically only offered in odd to even school years (e.g. 2019-2020)

\*\* Course typically only offered in even to odd school years (e.g. 2020-2021)