

A+ CURRICULUM 2017/2018



WORLD ACADEMY

A+ World Academy prepares students for entrance into the world's leading universities and colleges as we offer a challenging and relevant university preparatory curriculum that is inspired by the acclaimed International Baccalaureate and the Advanced Placement Program.

### Programme Objectives

Through this hallmark programme, A+ World Academy aspires to make a real difference in the lives of young people and, by extension, to the world in which we all live. We intend, while demanding the highest of academic standards, to prepare students for life. Success and employability in the 21st century will be buttressed by formative experiences such as this one and will differentiate A+ graduates in the job market. Providing A+ students an incomparable forum for academic excellence, for world travel, for personal development, for the acquisition of critical life skills, for practicing global citizenship and for building invaluable international networks, they become 'top of the list' candidates for anything that they might choose to pursue.

### Competencies

Global education is at the core of the A+ philosophy; to be clear, we advocate the following competencies that are, de facto, the criteria against which we develop curriculum and measure outcomes. They are:

- Developing citizens of the world in relation to culture, language and learning to live together
- Building and reinforcing students' sense of identity and cultural awareness
- Fostering students' recognition and development of universal human values
- Stimulating curiosity and inquiry in order to foster a spirit of discovery and the enjoyment of learning
- Equipping students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- Preparing students for the realities of global economics, varied political systems and culturally diverse inter-personal practices

### Entrance Levels

Candidates for admission to A+ World Academy will be considered for enrolment in the last three years of secondary school study. A+ World Academy encourages students to complete a two-year program and to have the opportunity to explore the full spectrum of our programme. However, students may also apply for a single year of study at any of the levels offered.

### Jurisdictions

A+ World Academy has partnered with a number of recognized schools, school boards and governments in the United States, Europe, Canada, Australia and Scandinavia. These partnerships ensure that each student is able to acquire credit for studies that are recognized in a form that is familiar and useful to them.

## PROGRAM OUTLINE

### Core Programme

Students must complete each of the 4 elements of the core programme. All courses are 150 hours.

- English Literature and Composition, Level 1, Level 2, ESL or AP
- Modern Language: Spanish, Level 1 or Level 2 **or** Mandarin Level 1 or Level 2
- Art, Communication & Technology
- Physical Education
- The A+ Extended Essay

### Elective Programme

Students must complete 3 courses from any of the following 15 courses in the 3 fields of study. All courses are 150 hours.

#### Science

- Biology, Level 1 or AP
- Environmental Science, Level 1 or AP (**Not offered 2017/2018**)
- Chemistry, Level 1 or AP
- Physics, Level 1 or AP

#### Mathematics

- Mathematics, Level 1 or Level 2
- Calculus, AP

#### Social Sciences

- World History, AP
- Macroeconomics, AP (**Not offered 2017/2018**)
- Human Geography, AP
- Comparative Government or Politics, AP

### AP Courses

We offer 10 AP courses:

- AP Chemistry
- AP Biology
- AP Physics
- AP Calculus
- AP Politics
- AP Human Geography
- AP English
- AP World History
- AP Economics
- AP Spanish

### Non-AP Courses

In addition to our AP courses, we offer 8 Non-AP courses

- Chemistry
- Biology
- Physics
- Math
- Art, Media and Communication
- Chinese culture and language
- Spanish
- Physical education
- Field Studies

### Signature Programme Outline

Students must complete each of the 4 signature programme components.

- The A+ Seminar
- The A+ Guest Lecturer Series
- A+ Field Studies

## Course Objectives

- To explore the medium of art as a window through which one better understands culture.
- To explore the medium of photography as a window through which one better understands culture.
- To explore and to evaluate the use of social media as an information highway.
- To explore the evolution of the communication of knowledge and fact.
- To explore and assess how internet merchandising and internet sales are changing human behaviour patterns and urban structure.
- To explore and assess how the evolution of technology has contributed to the development of a culturally neutral and universally understood use of keyboard pictograms and emoticons, a practice that began at the dawn of civilization.
- To bring focus to developing each student's ability to work creatively and competently with technologies that are central to their lives and assist in transcending the spoken word. The philosophy that underlies our art and communication focus is that students learn best by doing. This curriculum therefore adopts an activity-based, project-driven approach that involves students in problem solving as they develop knowledge and skills and gain experience in the art of communicating.

## Course Content

The course consists of three major components:

1. Theory (75 hours)
2. Lab Work and presentations (20 hours)
2. Field Work (40 hours)

At A+ Academy, technological education promotes the integration of learning across a variety of subject disciplines. Students apply literacy skills, even those as basic as their own inventory of emoticons, to communicate feelings, design ideas, stories, reports, artistic creations and a digital log of their learning experiences aboard the Sorlandet. Students will use the A+ Tech Centre (REACH) to improve research skills and to engage in creative expression. They will be asked to use critical thinking and problem solving strategies using IT resources. Most importantly, A+ will place an emphasis on innovation to meet human needs, encourage global citizenship and promote social, economic, and environmental awareness.

Students explore and confront the evolution of technologically driven art, technologically driven social practices, technologically driven urban patterns, technologically driven buying (trading) practices and a suite of technologically driven communication tools. The ensemble of technologically stimulated change creates new avenues for spanning cultural differences and practices. Students, through this core programme course, will address the significance of what is driving exponential change in the world of communication.

***"A picture is worth a thousand words."***

Arthur Brisbane, Newspaper Editor, 1911

# BIOLOGY

## Course Objectives

- To provide, through well-designed studies of experimental and practical biological science, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level.
- To develop abilities and skills that are relevant to the study and practice of biological science, useful in everyday life, encourage effective, efficient and safe practice, encourage effective communication using universal scientific conventions.
- To develop attitudes relevant to biological science, such as, concern for accuracy and precision, objectivity, integrity, skills of enquiry, initiative, inventiveness.
- To stimulate interest in, and care for, the local and global environment, and help students to understand the need for conservation.
- To make students aware that scientific theories and methods have developed, and continue to develop, as a result of groups and individuals working together, and that biological science overcomes national boundaries, that the study and practice of biology are affected and limited by social, economic, technological, ethical and cultural factors, that the application of biological science may be both helpful and harmful to the individual, the community and the environment, of the importance of using IT for communication, as an aid to experiments and as a tool for interpreting experimental and theoretical results.
- To stimulate students and give them a lasting interest in biology, so that they find studying biology to be enjoyable and satisfying. to stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas

Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics:

## Course Content

Cells: Cell Structure, Biological Molecules, Enzymes, Cell Membranes, Cell Transport, Cell Division, Nuclear Division, Genetic Control

Systems: Transport, Gas Exchange, Regulation and Control, Human Reproduction

Health: Infectious Disease, Immunity

Environment: Ecology, Energy and Respiration, Photosynthesis

Genetics: Inherited Change, Selection and Evolution

Biological Applications: Biodiversity and Conservation, Gene Technology, Biotechnology, Crop Plants

## A+ Laboratory Requirement

This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress.

In the laboratory setting, students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for A+ Biology students. Such practices require that students:

- Use representations and models to communicate scientific phenomena and solve scientific problems;
- Use mathematics appropriately;
- Engage in scientific questioning to extend thinking or to guide investigations within the context of the course;
- Plan and implement data collection strategies in relation to a particular scientific question;
- Perform data analysis and evaluation of evidence;
- Work with scientific explanations and theories; and
- Connect and relate knowledge across various scales, concepts, and representations in and across domains.



# BIOLOGY (AP)

## Course Objectives

- To provide, through well-designed studies of experimental and practical biological science, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level.
- To develop abilities and skills that are relevant to the study and practice of biological science, useful in everyday life, encourage effective, efficient and safe practice, encourage effective communication using universal scientific conventions.
- To develop attitudes relevant to biological science, such as, concern for accuracy and precision, objectivity, integrity, skills of enquiry, initiative, inventiveness.
- To stimulate interest in, and care for, the local and global environment, and help students to understand the need for conservation.
- To make students aware that scientific theories and methods have developed, and continue to develop, as a result of groups and individuals working together, and that biological science overcomes national boundaries, that the study and practice of biology are affected and limited by social, economic, technological, ethical and cultural factors, that the application of biological science may be both helpful and harmful to the individual, the community and the environment, of the importance of using IT for communication, as an aid to experiments and as a tool for interpreting experimental and theoretical results.
- To stimulate students and give them a lasting interest in biology, so that they find studying biology to be enjoyable and satisfying.
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- Students cultivate their 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.

## Course Content

The course is based on four Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about living organisms and biological systems.

1. The process of evolution explains the diversity and unity of life.
2. Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis.
3. Living systems store, retrieve, transmit, and respond to information essential to life processes.
4. Biological systems interact, and these systems and their interactions possess complex properties.

## A+ Laboratory Requirement

This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress.

In the laboratory setting, students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for A+ Biology students. Such practices require that students:

- Use representations and models to communicate scientific phenomena and solve scientific problems;
- Use mathematics appropriately;
- Engage in scientific questioning to extend thinking or to guide investigations within the context of the course;
- Plan and implement data collection strategies in relation to a particular scientific question;
- Perform data analysis and evaluation of evidence;
- Work with scientific explanations and theories; and
- Connect and relate knowledge across various scales, concepts, and representations in and across domains.



## Course Objectives

- To be able to work with functions represented in a variety of ways: graphical, numerical, analytical, or verbal and to understand the connections among these representations
- To understand the meaning of the derivative in terms of a rate of change and local linear approximation, and to be able to use derivatives to solve a variety of problems
- To understand the meaning of the definite integral both as a limit of Riemann sums and as the net accumulation of change, and to be able to use integrals to solve a variety of problems
- To understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus
- To be able to communicate mathematics and explain solutions to problems both verbally and in written sentences
- To be able to model a written description of a physical situation with a function, a differential equation, or an integral
- To be able to use technology to help solve problems, experiment, interpret results, and support conclusions
- To be able to determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement
- To develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- A+ Calculus is a course aimed at developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations also are important.

## Course Content

**Functions, Graphs and Limits:** Analysis of Graphs, Limits of Functions, Asymptotic and Unbound Behaviour, continuity as a property of functions.

**Derivatives:** Concept of the derivative, derivative at a point, derivative as a function, second derivatives, applications of derivatives, computation of derivatives.

**Integrals:** Interpretations and properties of definite integrals, Fundamental Theorem of Calculus, Techniques of Antidifferentiation, Applications of Antidifferentiation, Numerical approximations to definite integrals.



# CHEMISTRY

## Course Objectives

- To provide, through well designed studies of experimental and practical chemistry, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level.
- To develop abilities and skills that are relevant to the study and practice of chemistry, useful in everyday life, encourage effective, efficient and safe practice, encourage effective communication using universal scientific conventions.
- To develop attitudes relevant to science such as, accuracy and precision, objectivity, integrity, enquiry, initiative, and insight.
- To stimulate interest in, and care for, the environment.
- To promote an awareness that the study and practice of science are co-operative and cumulative activities, and are subject to social, economic, technological, ethical and cultural influences and limitations.
- To stimulate students, create and sustain their interest in Chemistry, and understand its relevance to society.
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- to equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas.

The A+ Chemistry course provides students with a foundation in chemistry. Through inquiry-based learning, students develop critical thinking and reasoning skills.

Students cultivate their understanding of chemistry and science practices as they explore topics in Physical, Inorganic, Organic and Analytical Chemistry.

## Course Content

**Physical Chemistry:** Atoms, molecules and stoichiometry, atomic structure, chemical bonding, states of matter, chemical energetics, electrochemistry, equilibria, reaction kinetics.

**Inorganic Chemistry:** The Periodic Table, chemical periodicity, Group II, Group IV, Group VII, Transition Elements, Nitrogen and Sulphur.

**Organic Chemistry:** Introductory topics, Hydrocarbons, Halogen derivatives, Hydroxy compounds, Carbonyl compounds, Carboxylic acids and derivatives, Nitrogen compounds, Polymerization. Applications of Chemistry, The Chemistry of Life, Applications of Analytical Chemistry

## Laboratory Requirement

This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress.

In the laboratory setting, students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for A+ Chemistry students. Such practices require that students:

- Use representations and models to communicate scientific phenomena and solve scientific problems;
- Use mathematics appropriately;
- Engage in scientific questioning to extend thinking or to guide investigations within the context of the course;
- Plan and implement data collection strategies in relation to a particular scientific question;
- Perform data analysis and evaluation of evidence;
- Work with scientific explanations and theories; and
- Connect and relate knowledge across various scales, concepts, and representations in and across domains.





# CHEMISTRY (AP)

## Course Objectives

- To provide, through well designed studies of experimental and practical chemistry, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level.
- To develop abilities and skills that are relevant to the study and practice of chemistry, useful in everyday life, encourage effective, efficient and safe practice, encourage effective communication using universal scientific conventions.
- To develop attitudes relevant to science such as, accuracy and precision, objectivity, integrity, enquiry, initiative, and insight.
- To stimulate interest in, and care for, the environment.
- To promote an awareness that the study and practice of science are cooperative and cumulative activities, and are subject to social, economic, technological, ethical and cultural influences and limitations.
- To stimulate students, create and sustain their interest in Chemistry, and understand its relevance to society.
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas.
- The A+ Chemistry course provides students with a foundation to support future university level course work in chemistry. Through inquiry-based learning, students develop critical thinking and reasoning skills.
- Students cultivate their understanding of chemistry and science practices as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium.

## Course Content

The course is based on Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the particulate nature of matter underlying the observations students make about the physical world. The following are Big Ideas:

The chemical elements are the building blocks of matter, which can be understood in terms of the arrangements of atoms.

Chemical and physical properties of materials can be explained by the structure and the arrangement of atoms,

ions, or molecules and the forces between them.

Changes in matter involve the rearrangement and/or reorganization of atoms and/or the transfer of electrons.

Rates of chemical reactions are determined by details of the molecular collisions.

The laws of thermodynamics describe the essential role of energy and explain and predict the direction of changes in matter.

Bonds or attractions that can be formed can be broken. These two processes are in constant competition, sensitive to initial conditions and external forces or changes.

## Laboratory Requirement

This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquirybased investigations that provide students with opportunities to apply the science practices. Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress.

In the laboratory setting, students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for A+ Chemistry students. Such practices require that students:

- Use representations and models to communicate scientific phenomena and solve scientific problems;
- Use mathematics appropriately;
- Engage in scientific questioning to extend thinking or to guide investigations within the context of the course;
- Plan and implement data collection strategies in relation to a particular scientific question;
- Perform data analysis and evaluation of evidence;
- Work with scientific explanations and theories; and
- Connect and relate knowledge across various scales, concepts, and representations in and across domains.



### Course Objectives

- To compare and contrast political concepts, themes, and generalizations
- To describe and explain typical patterns of political processes and behaviours and their consequences
- To compare and contrast political institutions and processes across countries and to derive generalizations
- To analyze and interpret basic data relevant to comparative government and politics
- To encourage a concern for accuracy and objectivity in collecting, recording, processing, analysing, interpreting and reporting data
- To develop candidates' ability to think logically, and to present an ordered and coherent argument in a variety of ways
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- To prepare students for the realities of global economics, varied political systems and culturally diverse inter-personal practices

### Course Content

Comparative Government and Politics introduces students to the rich diversity of political life around the world. The course uses a comparative approach to examine the political structures, policies, and the political, economic, and social challenges among six selected countries: Great Britain, Mexico, Russia, Iran, China, and Nigeria. Additionally, students examine how different governments solve similar problems by comparing the effectiveness of approaches to many global issues. The purpose of the Comparative Government and Politics Course is to compare and contrast political institutions and processes across these six and to analyze and interpret data to derive generalizations.

- Introduction to Comparative Politics
- Sovereignty, Authority and Power
- Political Institutions
- Citizens, Society and the State
- Political and Economic Change
- Public Policy

## Course Objectives

- To develop an appreciation of and informed personal response to literature in English in a range of texts in different forms, and from different periods and cultures.
- To practice and master the interdependent skills of reading, writing, analysis and communication.
- To develop effective and appropriate communication skills.
- To develop personally through reading
- To make informed connections arising from cultural diversity, differing political systems, and an exploration of universal human values.
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- To prepare students for the realities of global economics, varied political systems and culturally diverse inter-personal practices

## Course Content

Language is the basis for thinking, communicating, learning, and viewing the world. Students need language skills in order to comprehend ideas and information, to interact socially, to inquire into areas of interest and study, and to express themselves clearly and demonstrate their learning.

Learning to communicate with clarity and precision will help students to thrive in the world beyond school.

The A+ English Literature and Composition course engages students in reading and critical analysis of literature from various genres from the 16th to the 21st century. In the process of reading selected texts, students will also show their detailed understanding of the ways in which writers' choices of form, structure, and language shape meanings and will be able to respond with knowledge and understanding to literary texts of different types and periods. In a student's deliberate and thorough reading of texts, they gain an understanding of the complexity and meaning held in the literary form. Students show an understanding of the contexts in which literary texts are written and understood as well as evaluate the significance of cultural, historical, and other contextual influences on literary texts and study. Students experience the literature through reading, analyze the literature for the multiple layers of meaning and assess the quality and success of the literature through the lens of the social and cultural values in which it was written.

A+ students' written work may involve response and reaction papers, annotation, creative writing and the maintenance of a reading journal. Writing assignments focus on the critical analysis of literature and include analytical, expository and argumentative essays. They will communicate clearly the knowledge, understanding and insight appropriate to literary study, using appropriate terminology and accurate and coherent written expression. Students will explore and comment on relationships between literary texts and will be able to articulate independent opinions and judgments, informed by different interpretations of literary texts by other readers.

A+ students writing instruction includes attention to developing and organizing ideas in clear, coherent and persuasive language. Emphasis is placed on helping students develop stylistic levels that reflect a wide-ranging vocabulary, a variety of sentence structures, logical organization highlighted by techniques of coherence such as repetition, transitions and emphasis, a balance of generalization with specific illustrative detail, an effective use of rhetoric, including controlling tone, maintaining a consistent voice, and achieving emphasis through parallelism and antithesis.

Although often thought of as separate entities, reading and writing are intertwined and best taught together as they stimulate and support one another. Student's writing reinforces their reading and assists students in understanding both their common and distinctive elements. A+ students will have opportunities to create both formal and informal pieces, and writing that involves research, analysis, argument as well as opportunities to develop skills in writing under time constraints as they prepare for university and college courses.

## A+ World Academy ESL

Following a thorough assessment of reading, writing and oral skills, students enrolled in this programme will pursue a fast-paced course that is designed to train for effective transition to other courses in the Sciences and the Social Sciences. Students are engaged in a full English Immersion course. Consequently, the materials used will rely not only on all of the basic genres of literature and assignments uncreative and analytical writing but, also, language specific to a number of topics and concepts in other subject areas. The objective of the course is to ensure that each student acquires all of the tools required to study, at advanced levels, in the English language.



**NB! This class will not be offered in 2017/2018**

## Course Objectives

To develop a knowledge of the Earth's natural systems and the effects of human activity on these systems

To be challenged to think about important environmental problems which face the world today

To understand that solutions to environmental issues are not easy to find

To recognise that the environment is an important social and political issue

To understand that while environmental issues can be debated by government, non-government and scientific organisations, there is an important role for individuals in thinking about these issues and in considering solutions.

To understand that people are affected by, and respond to natural phenomena in many different ways

To recognize that rapid human growth is the fundamental environmental issue

To become aware that the sustainable use of resources is fundamental to all solutions

To achieve a global perspective of the impact of human beings on the environment of the whole planet

To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning

To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas

## Course Content

A+ students will approach this course by asking 4 fundamental questions about the 4 traditional divisions of the global environment: the lithosphere, the hydrosphere, the atmosphere and the biosphere:

1. What are the key structural components of each sphere and why is it important to understand their characteristics?
2. What has been the impact of human activity on each

of the spheres?

3. How can the resources within each sphere be sustained?
4. What are the key problems in each sphere and how can we address these problems?

## Laboratory and Field Requirement

This course requires that 25 percent of the instructional time will be spent in hands-on laboratory and field work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices and to learn about the environment through firsthand observation. Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress. Experiences both in the laboratory and in the field provide students with important opportunities to test concepts and principles that are introduced in the classroom, explore specific problems with a depth not easily achieved otherwise, and gain an awareness of the importance of confounding variables that exist in the "real world."

In the laboratory setting, students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for A+ Biology students. Such practices require that students:

- Use representations and models to communicate scientific phenomena and solve scientific problems;
- Use mathematics appropriately;
- Critically observe environmental systems
- Develop and conduct well-designed experiments
- Utilize appropriate techniques and instrumentation
- Analyze and interpret data, including appropriate statistical and graphical presentation
- Think analytically and apply concepts to the solution of environmental problems
- Make conclusions and evaluate their quality and validity
- Propose further questions for study
- Communicate accurately and meaningfully about observations and conclusions



## ENVIRONMENTAL STUDIES II

**NB! This class will not be offered in 2017/2018**

### Course objectives

To explore and investigate the interrelationships of the natural world

To identify and analyze environmental problems, both natural and human made

To evaluate the relative risks associated with these problems

To examine alternative solutions for resolving and/ or preventing environmental problems

To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning

To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas

### Course Content

**Earth Systems and Resources:** Earth Science Concepts, The Atmosphere, Global Water Resources and Use, Soil and Soil Dynamics

**The Living World:** Ecosystem Structure, Energy Flow, Ecosystem Diversity, Natural Ecosystem Change, Natural Biogeochemical Cycles

**Population:** Population Biology Concepts, Human Population

**Land and Water Use:** Agriculture, Forestry, Rangelands, Other Land Use, Mining, Fishing, Global Economics

**Energy Resources and Consumption:** Energy Concepts, Energy, Fossil Fuel Resources and Use, Nuclear Energy, Hydroelectric, Energy: Conservation, Renewable

**Pollution:** Pollution Types, Impacts on the Environment and Human, Economic Impacts

**Global Change:** Stratospheric Ozone, Global Warming, Loss of Biodiversity

### Laboratory and Field Requirement:

This course requires that 25 percent of the instructional time will be spent in hands-on laboratory and field work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices and to learn about the environment through firsthand observation. Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress. Experiences both in the laboratory and in the field provide students with important opportunities to test concepts and principles that are introduced in the classroom, explore specific problems with a depth not easily achieved otherwise, and gain an awareness of the importance of confounding variables that exist in the "real world".

In the laboratory setting, students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for A+ Biology students. Such practices require that students:

- Use representations and models to communicate scientific phenomena and solve scientific problems
- Use mathematics appropriately
- Critically observe environmental systems
- Develop and conduct well-designed experiments
- Utilize appropriate techniques and instrumentation
- Analyze and interpret data, including appropriate statistical and graphical presentation
- Think analytically and apply concepts to the solution of environmental problems
- Make conclusions and evaluate their quality and validity
- Propose further questions for study
- Communicate accurately and meaningfully about observations and conclusions

# HUMAN GEOGRAPHY (AP)

## Course Objectives

- To provide a basis of factual knowledge of human geography
- To interpret maps and analyze geospatial data
- To understand and explain the implications of associations and networks among phenomena in places.
- To define regions and evaluate the regionalization process
- To characterize and analyze changing interconnections among places
- To develop an awareness of the relevance of geographical analysis to understanding and solving contemporary human and environmental problems
- To develop a sense of relative location, including an appreciation of the complexity and variety of natural and human environments
- To demonstrate and explain the causes and effects of change over space and time on the natural and human environments
- To encourage a concern for accuracy and objectivity in collecting, recording, processing, analysing, interpreting and reporting data in a spatial context
- To develop candidates' ability to think logically, and to present an ordered and coherent argument in a variety of ways
- To promote awareness of the need for understanding, respect and co-operation in conserving the environment and improving the quality of life both at a global scale and within the context of different cultural settings
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- To prepare students for the realities of global economics, varied political systems and culturally diverse inter-personal practices

## Course Content

The purpose of the A+ Human Geography course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. Geography occupies a central position in understanding and interpreting social, economic, political and environmental conditions and change, in both space and time.

- Introduction to Geography
- Population and Migrations
- Cultural Patterns and Processes
- Political Organization of Geography
- Agriculture, Food and Rural Land Use
- Effect of Industrialization and Economics
- Urban Land Use

# MACROECONOMICS (AP)

**NB! This class will not be offered in 2017/2018**

## Course Objectives

- to provide a basis of factual knowledge of macroeconomics
- to encourage the development of facility for self-expression, not only in writing but also in using additional aids, such as statistics and diagrams, where appropriate
- to encourage the habit of using works of reference as sources of data specific to economics
- to encourage the habit of reading critically to gain information about the changing economy we live in
- to encourage an appreciation of the methods of study used by the economist, and of the most effective ways economic data may be analysed, correlated, discussed and presented
- to demonstrate knowledge and understanding of the specified content
- to interpret economic information presented in verbal, numerical or graphical form
- to explain and analyse economic issues and arguments, using relevant economic concepts, theories and information
- to evaluate economic information, arguments, proposals and policies, taking into consideration relevant information and theory, and distinguishing facts from hypothetical statements and value judgements
- to organise, present and communicate economic ideas and informed judgements in a clear, logical and appropriate form
- to stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning to equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- to prepare students for the realities of global economics, varied political systems and culturally diverse inter-personal practices

## Course Content

The purpose of the course in macroeconomics is to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination, and also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics.

- Basic Economic Concepts
- Measurement of Economic Performance
- National Income and Price Determination
- Financial Sector
- Loanable funds market
- Stabilization Policies
- Economic Growth
- Open Economy: International Trade and Finance

## Course Objectives

- To develop citizens of the world in relation to culture, language and learning to live together to build and reinforce students' sense of identity and cultural awareness
- to foster students' recognition and development of universal human values
- to stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- to equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- to prepare students for the realities of global economics, varied political systems and culturally diverse interpersonal practices
- to prepare students for culturally diverse interpersonal practices
- to engage students in spoken interpersonal communication
- to engage students in written interpersonal communication
- to develop comprehension skills using information from a variety of audio, visual, and audio-visual resources
- to develop comprehension skills using information from a variety of written and print resources
- to developing communication skills through the planning, production, and presentation of spoken and written presentations

## Course Content

In this course, you will use authentic Chinese materials and sources to develop your language skills in multiple modes of communication, including two-way interactions in both writing and speaking; interpretation or audio, audiovisual, and print materials; and oral and written presentation of information and ideas.

The Chinese Language and Culture course in Mandarin Chinese emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The A+ Chinese Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Chinese. The A+ Chinese Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products, (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture);





## Course Objectives

- To develop citizens of the world in relation to culture, language and learning to live together
- To build and reinforce students' sense of identity and cultural awareness
- To foster students' recognition and development of universal human values
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- To prepare students for the realities of global economics, varied political systems and culturally diverse inter-personal practices
- To prepare students for culturally diverse inter-personal practices
- To engage students in spoken interpersonal communication
- To engage students in written interpersonal communication
- To develop comprehension skills using information from a variety of audio, visual, and audio-visual resources
- To develop comprehension skills using information from a variety of written and print resources
- To developing communication skills through the planning, production, and presentation of spoken and written presentations

## Course Content

In this course, you will use authentic Chinese materials and sources to develop your language skills in multiple modes of communication, including two-way interactions in both writing and speaking; interpretation or audio, audiovisual, and print materials; and oral and written presentation of information and ideas.

The A+ Chinese Language and Culture course in Mandarin Chinese emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The A+ Chinese Language and Culture course strives not to over-emphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Chinese. The A+ Chinese Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products, (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture);



## Course Objectives

- To develop mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment
- To develop an understanding of mathematical principles and an appreciation of mathematics as a logical and coherent subject
- To acquire a range of mathematical skills, particularly those which will enable students to use applications of mathematics in the context of everyday situations and of other subjects they may be studying;
- To develop the ability to analyse problems logically, recognise when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve the problem
- To use mathematics as a means of communication with emphasis on the use of clear expression
- To acquire the mathematical background necessary for further study in this or related subjects
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas.

A+ Mathematics Level 1 is a course aimed at developing the students' understanding of the concepts of mathematics and providing experience with its methods and applications.

This course introduces the mathematical concept of the function by extending students' experiences with linear and quadratic relations. Students will investigate properties of discrete and continuous functions, including trigonometric and exponential functions; represent functions numerically, algebraically, and graphically; solve problems involving applications of functions; investigate inverse functions; and develop facility in determining equivalent algebraic expressions. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

## Course Content

### Quadratics:

- Investigating quadratic functions in vertex and standard form
- Graphical solutions of quadratic equations
- Factoring quadratic equations, solving by completing the square
- Quadratic formula
- Solving systems of equations graphically and algebraically
- linear and quadratic inequalities

### Polynomials

- Adding, subtracting, multiplying dividing and factoring

### Functions and Equations

- Radical expressions and equations
- multiplying and dividing radical expressions
- Rational expressions and equations
- Absolution value
- Reciprocal functions

### Arithmetic and geometric sequences and series

### Trigonometry

- Angles in standard position
- Trigonometric ratios of any angle
- Sine and cosine laws
- Combinatorics and probability

### Combinatorics and Probability



## MATHEMATICS II

### Course Objectives

- To develop mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment
- To develop an understanding of mathematical principles and an appreciation of mathematics as a logical and coherent subject
- To acquire a range of mathematical skills, particularly those which will enable students to use applications of mathematics in the context of everyday situations and of other subjects they may be studying;
- To develop the ability to analyse problems logically, recognise when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve the problem
- To use mathematics as a means of communication with emphasis on the use of clear expression
- To acquire the mathematical background necessary for further study in this or related subjects
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas.

A+ Mathematics is a course aimed at developing the students' understanding of the concepts of mathematics and providing experience with its methods and applications.

This course extends students' experience with functions. Students will investigate the properties of polynomial, rational, logarithmic, and trigonometric functions, algebra and statistics. Students will also refine their use of the mathematical processes necessary for success in senior mathematics.

### Course Content

- Quadratics
- Functions
- Coordinate Geometry
- Circular Measure
- Trigonometry
- Vectors
- Series
- Differentiation
- Integration
- Algebra
- Logarithmic and exponential functions
- Numerical solution of equations
- Complex Numbers
- Representation of Data
- Permutations and Combinations
- Probability
- Discrete random variables
- The Normal Distribution



# PHYSICS

## Course Objectives

- To provide, through well designed studies of experimental and practical physics, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level.
- To develop abilities and skills that are relevant to the study and practice of physics, useful in everyday life, encourage effective, efficient and safe practice, encourage effective communication using universal scientific conventions.
- To develop attitudes relevant to science such as, accuracy and precision, objectivity, integrity, enquiry, initiative, and insight.
- To promote an awareness that the study and practice of science are cooperative and cumulative activities, and are subject to social, economic, technological, ethical and cultural influences and limitations.
- To stimulate students, create and sustain their interest in physics, and understand its relevance to society.
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas

The A+ Physics course provides students with a foundation to support future advanced course work in physics. This course explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits.

Through inquirybased learning, students will develop scientific critical thinking and reasoning skills.

## Course Content

Students explore principles of Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. The course is based on six Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world. The following are Big Ideas:

Objects and systems have properties such as mass and charge. Systems may have internal structure

Fields existing in space can be used to explain interactions

The interactions of an object with other objects can be described by forces

†Interactions between systems can result in changes in those systems

Changes that occur as a result of interactions are constrained by conservation laws

Waves can transfer energy and momentum from one location to another without the permanent transfer of mass and serve as a mathematical model for the description of other phenomena

## Laboratory Requirement

This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquirybased investigations that provide students with opportunities to apply the science practices. Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress.

In the laboratory setting, students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for A+ Chemistry students. Such practices require that students:

- Use representations and models to communicate scientific phenomena and solve scientific problems;
- Use mathematics appropriately;
- Engage in scientific questioning to extend thinking or to guide investigations within the context of the course;
- Plan and implement data collection strategies in relation to a particular scientific question;
- Perform data analysis and evaluation of evidence;
- Work with scientific explanations and theories; and
- Connect and relate knowledge across various scales, concepts, and representations in and across domains.

# PHYSICS (AP)

## Course Objectives

- To provide, through well designed studies of experimental and practical physics, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level.
- To develop abilities and skills that are relevant to the study and practice of physics, useful in everyday life, encourage effective, efficient and safe practice, encourage effective communication using universal scientific conventions.
- To develop attitudes relevant to science such as, accuracy and precision, objectivity, integrity, enquiry, initiative, and insight.
- To promote an awareness that the study and practice of science are cooperative and cumulative activities, and are subject to social, economic, technological, ethical and cultural influences and limitations.
- To stimulate students, create and sustain their interest in physics, and understand its relevance to society.
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- A+ Physics is a physics course that explores topics such as fluid statics and dynamics, thermodynamics with kinetic theory, PV diagrams and probability, electrostatics, electrical circuits with capacitors, magnetic fields, electromagnetism, physical and geometric optics, and quantum, atomic and nuclear physics.
- Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

## Course Content

Students explore principles of fluids, thermodynamics, electricity, magnetism, optics, and topics in modern physics. The course is based on seven Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world. The following are Big Ideas:

- Objects and systems have properties such as mass and charge. Systems may have internal structure.
- Fields existing in space can be used to explain interactions
- The interactions of an object with other objects can be

described by forces

- Interactions between systems can result in changes in those systems
- Changes that occur as a result of interactions are constrained by conservation laws
- Waves can transfer energy and momentum from one location to another
- without the permanent transfer of mass and serve as a mathematical model for the description of other phenomena
- The mathematics of probability can be used to describe the behaviour of complex systems and to interpret the behaviour of quantum mechanical systems

## Laboratory Requirement

This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress.

In the laboratory setting, students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for A+ Chemistry students. Such practices require that students:

- Use representations and models to communicate scientific phenomena and solve scientific problems;
- Use mathematics appropriately;
- Engage in scientific questioning to extend thinking or to guide investigations within the context of the course;
- Plan and implement data collection strategies in relation to a particular scientific question;
- Perform data analysis and evaluation of evidence;
- Work with scientific explanations and theories; and
- Connect and relate knowledge across various scales, concepts, and representations in and across domains.



### Course Objectives

- To provide, through sailing and land-based activities, a healthy physical education and wellness experience for all students.
- To develop an awareness for the need for physical fitness and a positive attitude toward exercise.
- To develop abilities and skills that will encourage life-long fitness goals.
- To develop attitudes of cooperative behaviour and teamwork in order to
- achieve success.
- To stimulate students to create and sustain their interest in health and wellness through physical activity, stress management, leisure, relationships and healthy eating.
- To stimulate curiosity and inquiry in order to foster a spirit of discovery and enjoyment of learning.
- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas.

### Course Content

The health and physical education course has been designed to provide learning experiences that will help students realize their potential in life.

Through sailing and land-based activities, students will develop an understanding of the importance of physical fitness, health and well-being and the factors that contribute to them.

Physical Education courses teach students to become more responsible for their own health and wellness. In this course, students examine the relationship between various lifestyle behaviours and health.

Through physical activity both as an active crew member who is engaged in a regular watch and involvement in a variety of shore-based activities, students learn the effect that exercise has on their physical and mental well-being. Through experimentation with different activities, including those of sail training, they can identify activities which best suit their personal abilities, interests and needs.

## Course Objectives

- For a student to exploit his or her own experience of language learning in learning the new language
- To examine similarities and differences between the native language and the new language and exploit this in his or her language learning
- To use digital tools and other aids
- To describe and assess his or her own work in learning the new language
- To use the alphabet and characters of the language
- To find relevant information and understand the main content in written and oral adapted and authentic texts in various genres
- To participate in simple, spontaneous conversations
- To present various topics orally
- To express his or her own opinions and feelings
- To understand and use numbers in practical situations
- To communicate with an understandable pronunciation
- To understand and use a vocabulary that covers everyday situations
- To use basic linguistic structures and grammar to connect text
- To adapt to some extent his/her language to various communication situations
- To write texts that narrate, describe or inform
- To use listening, speaking, reading and writing strategies adapted to the purpose
- To use communication technology to cooperate with others, and to find and interact with authentic language
- For students to be able to talk about daily life, persons and current events in the language region in question and in Norway
- To compare some aspects of traditions, customs and ways of living in the language region in question and in Norway
- To talk about the language and aspects of the geography of the language region in question
- To express experiences connected to the culture of the language region in question

## Course Content

The Spanish I course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The Spanish I course strives not to overemphasize grammatical accuracy at the expense of communication.

The Spanish I course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' 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).

## SPANISH II

### Course Objectives

- To exploit his or her experiences of language learning to develop his or her multilingualism
- To exploit various sources of authentic texts in his or her own language learning
- To use digital tools and other aids critically and independently
- To describe and assess his or her own progress in learning the new language
- To understand the content in long written and oral authentic texts in various genres
- To read formal and informal texts in different genres and elaborate on the author's views and attitudes
- To participate in spontaneous conversations on various themes and relevant topics
- To present relevant and interdisciplinary topics orally
- To express experiences, viewpoints and attitudes, wishes and emotions
- To understand and use numbers and quantities in practical situations
- To communicate with good pronunciation and intonation
- To adapt the language to various communication situations
- To use words, sentence structures and text connectors in a varied and appropriate way
- To write cohesive texts in various genres
- To choose listening, speaking, reading and writing strategies that are suitable for the purpose, situation and genre
- To use communication technology to cooperate with others, and to find and interact with authentic language
- To discuss and elaborate on aspects of daily life, traditions, customs and ways of living in the language area in question and in Norway
- To discuss and elaborate on aspects of living conditions and current societal relations in the language region
- To elaborate on aspects of the language region's geography and history
- To describe key aspects of the culture in the language region in question and express experiences connected to this
- To discuss and elaborate on how language knowledge and cultural insights can promote multicultural cooperation and understanding

### Course Content

The Spanish II course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The Spanish II course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

The Spanish II course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' 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).





**NB! Not offered in 2017/2018**

## Course Objectives

The AP Spanish Language and Culture course provides students with opportunities to demonstrate their proficiency at the Intermediate to Pre-Advanced range in each of the three modes of communication described in the ACT-FL Performance Descriptors for Language Learners. Students are expected to:

- Engage in spoken interpersonal communication
- Engage in written interpersonal communication
- Synthesize information from a variety of authentic audio, visual, and audiovisual resources
- Synthesize information from a variety of authentic written and print resources
- Plan, produce, and present spoken presentational communications
- Plan and produce written presentational communications

## Course Themes

The AP Spanish Language and Culture course is structured around six themes:

- Beauty and Aesthetics
- Contemporary Life
- Families and Communities
- Global Challenges
- Personal and Public Identities
- Science and Technology

Themes facilitate the integration of language, content, and culture and promote the use of the language in a variety of contexts. The themes may be combined, as they are inter-related.

## Recommended Prerequisites

There are no prerequisites; however, students are typically in their fourth year of high school-level Spanish language study. In the case of native or heritage speakers, there may be a different course of study leading to this course.

## Course Content

The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to over-emphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' 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).



## Course Objectives

- To develop chronological reasoning skills by comparing causes and/or effects, including between short-term and long-term effects
- To analyze and evaluate historical patterns of continuity and change over time and to connect patterns of continuity and change over time to larger historical processes or themes
- To analyze and evaluate competing models of periodization of world history
- To compare related historical developments and processes across place, time, and/or different societies, or within one society
- To explain and evaluate multiple and differing perspectives on a given historical phenomenon
- To explain and evaluate ways in which specific historical phenomena, events, or processes connect to broader regional, national, or global processes occurring at the same time
- To analyze commonly accepted historical arguments and explain how an argument has been constructed from historical evidence
- To construct convincing interpretations through analysis of disparate, relevant historical evidence
- To evaluate and synthesize conflicting historical evidence to construct persuasive historical arguments
- To analyze features of historical evidence such as audience, purpose, point of view, format, argument, limitations, and context germane to the evidence considered
- To make supportable inferences and draw appropriate conclusions based on analysis and evaluation of historical evidence
- To analyze diverse historical interpretations
- To evaluate how historians' perspectives influence their interpretations and how models of historical interpretation change over time
- To draw appropriately on ideas and methods from different fields of inquiry or disciplines
- To apply insights about the past to other historical contexts or circumstances, including the present
- To make informed connections arising from cultural diversity, differing political systems, and an exploration of universal human values.
- To stimulate curiosity and inquiry in order to foster a

spirit of discovery and enjoyment of learning

- To equip students with the skills to learn and acquire knowledge, individually or collaboratively, and to apply these skills and knowledge accordingly across a broad range of areas
- To prepare students for the realities of global economics, varied political systems and culturally diverse inter-personal practices

## Course Content

A+ World History focuses on developing students' abilities to think conceptually about world history from approximately 8000 BCE to the present and apply historical thinking skills as they learn about the past.

Five themes of equal importance Focusing on the environment, cultures, state-building, economic systems, and social structures provide areas of historical inquiry for investigation throughout the course.

The World History course encompasses the history of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions.

This course is structured around themes and concepts in six different chronological periods from approximately 8000 BCE to the present:

- Technological and Environmental Transformations (to c. 600 BCE)
- Organization and Reorganization of Human Societies (c. 600 BCE to c. 600 CE)
- Regional and Transregional Interactions (c. 600 CE to c. 1450)
- Global Interactions (c. 1450 to c. 1750)
- Industrialization and Global Integration (c. 1750 to c. 1900)
- Accelerating Global Change and Realignments (c. 1900 to the Present)



### The A+ Extended Essay

The A+ Research Essay (4000 words) must be based on a topic of global significance. Students will learn to formulate their research topics, will engage in the personal exploration of the topic across each of the 20 to 25 international destinations visited and, through guided inquiry and qualitative research methods, will learn to communicate ideas and concepts framed within a convincing argument. The student will formulate the topic around which he or she will build the research. Each student is assigned a research advisor; the project begins in September and will be completed in June.

### The A+ Seminar

The A+ 15-day Learning seminar is introduced at a critical moment during the student's journey. Following 90 days of travel aboard the school's tall ship and visits to at least 6 compelling ports of call and at the moment when activity absorption is both optimized and maximized, students will move from the vessel to a quiet resort. There, our university faculty will lead a complete exercise in learning transfer and revised goal setting. Living and learning in the microcosm of a tall ship and the discovery that occurs in the macrocosm of the planet are life-changing experiences. Those experiences and discoveries are invaluable if, and only if, they are identified, understood and then used in everyday life. It is, after all, what students and parents should expect from school. To attain its maximum advantage and to benefit students, we have built a programme that obliges students to reflect, at an optimum moment, upon their experience and then to participate in a carefully constructed 're-build' of the learning take-away. An internationally recognized leadership group from 2 leading universities will facilitate the seminar.

### The A+ Guest Lecturer Series

The third A+ signature learning experience is the A+ Guest Lecturer Series. Leading business, professional and political figures from around the world will join the students aboard Sorlandet and will speak to the complexities of the economic, social, environmental and human challenges that must be addressed in the near term. Speakers will share their experiences and their learning with our students, encouraging them to think creatively and to chase their dreams.

### The A+ Field studies

The fourth A+ signature offers 20+ ports-of-call each year full of opportunities for experiential education. Field Studies refers to these organized learning opportunities that are undertaken as a full school while in port.

In each field-studies program, students delve deeper into significant aspects of each place's geography, history, culture, science, politics, current issues etc. Learning comes alive as students witness and experience these topics for themselves, first hand, in a way that can't be replicated in a classroom. Field studies takes learning beyond the classroom and places students into real life experiences that provoke critical thinking, inquiry, and engagement, not only in academic studies but in the world at large. The A+ field studies program fosters active, engaged and passionate global citizens for life.

The field studies are accompanied by a field studies course that is incorporated into the timetable and offers an opportunity to prepare for, and reflect upon the field-studies programs completed in port.

