



# High School Course Guide

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2014–2015

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# • Greetings

Students and Parents,

We have carefully structured a curriculum to ensure a smooth transition from Middle School to High School. Although we are a small school, we attempt to provide a broad range of options to cater to students' interests and abilities.

All students who meet the graduation requirements described in this course guide will earn an ICS High School diploma. The International Baccalaureate (IB) Diploma Programme provides excellent course offerings for students seeking the best preparation for admission to colleges and universities worldwide. Most students will attempt the full IB Diploma, while the rest will study one or more IB courses.

Regardless of their path through our curriculum and courses, it is our hope that all ICS students will be prepared for success beyond our walls, and will have the character, skills and attitudes that will empower them to contribute to their future communities and our world.

This course guide is meant to assist students and parents in their discussions with counselors and teachers in choosing appropriate programs of study.

Joyce Halsey, High School Principal

Michael Anthony, High School Counselor  
David Redmond, IBDP Coordinator

Jennifer Park, Gr. 9 -10 Counselor

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## ICS Mission Statement

The International Community School of Addis Ababa, accredited in the United States, develops the talents and intellects of a diverse, multicultural student body through a learner-centered holistic program, empowering each student to contribute and excel in the 21st century.

*Adopted by the ICS Board of Governors, Spring, 2013*

## A Statement of Understanding About 21st Century Learning

In the 21st century...

- ICS students embody the traits of the IB Learner Profile. They are fluent in current media, information resources, technology skills and key global concepts as part of a strong academic core.
- We facilitate access for our learning community to a broad range of unique, local, global and virtual opportunities. We innovate with flexible learning times, schedules and other resources.
- Our curriculum and instructional methods continuously evolve to reflect best practices and internationally recognized standards.
- Educators act as coaches to enable students to attain agreed upon learning goals using instructional tools that are appropriate for individual learning needs and styles.
- Facilities provide a variety of flexible learning spaces that support the anticipated and unforeseen needs of a 21st century educational environment.

## The IB and ICS Learner Profile

At ICS Addis we are not just interested in students learning content. We are very keen to ensure that students are developing habits, attitudes and dispositions that will prepare them for a lifetime of learning in the 21st century. The IB Learner Profile is the framework that we use to describe the ICS learner...it was developed over time by many educators and we use it throughout our school—even for ourselves as adult learners!

The aim of an IB World School is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world. IB learners strive to be:

- Inquirers
- Knowledgeable
- Thinkers
- Communicators
- Principled
- Open-minded
- Caring
- Courageous
- Balanced
- Reflective

## High School Program Overview

The ICS High School Program is designed to:

- Offer courses that meet entry requirements to a broad range of colleges and universities around the world. Successful ICS students will be well prepared for the demands of post-secondary education.
- Support all students in attaining their educational goals. A wide range of course offerings and emphasis on differentiated teaching strategies ensure that all students are supported to achieving their potential. However, only limited EAL and special needs support is available.
- Provide learning opportunities that support the development of independent learners and the IB Learner Profile.

The transition from Middle to High School demands that students take increasing responsibility for their personal learning. Good time management skills and personal reflection on teacher feedback are important pillars for academic success. High school assignments will often require students to develop timelines and completion strategies that will provide balance to their daily workload.

## Planning a Course of Study

In grades 11 and 12 students may choose one of three paths through our program of studies:

- Path A: ICS High School Diploma
- Path B: ICS Diploma with IB Courses
- Path C: Full IB Diploma

Upon successful completion of grade 12, all students will be awarded the ICS High School Diploma. Students who successfully undertake the full IB Diploma Program (*Path C*) will receive the IB Diploma and the ICS High School Diploma. Students who choose to study a combination of IB courses and other ICS courses (*Path B*) will earn the ICS High School Diploma with IB courses that may earn advanced placement and/or credit at colleges and universities.

*We feel that all students will benefit from the challenge of the IB Diploma Program, either as individual IB courses or the full IB Diploma.*

## High School Graduation Requirements

Listed below are the graduation requirements for the ICS High School Diploma. These are minimum requirements that must be successfully completed before an ICS High School Diploma can be awarded. Colleges and universities have their own admission standards, and most demand evidence of high levels of achievement with an emphasis on a rigorous course of study. A student who only meets the minimum requirements may find their college choices are limited. Students will decide, with the guidance of school counselors and faculty, and the help of parents, what is best for them based on their goals and aspirations beyond high school.

All courses meet the same amount of time per week, but some courses run for one semester and other courses run for the entire year. A half (0.5) credit is awarded for each semester of a high school course when the student has earned a passing grade of (3) - or better.

Subject Areas	Credits Required
English	4
Mathematics	3
Humanities	3
Sciences	3
Languages other than English	2
Physical Education	2
Arts	1
Other/ Elective Courses	8
<b>Total credits required for ICS Diploma</b>	<b>26</b>

Details about ICS's credit requirements, grade requirements, CAS requirements and any potential waivers to graduation requirements are explained in more detail in the High School Student/Parent Handbook.

It is important to read course descriptions and to select courses that will fulfill graduation requirements and meet individual needs. Some courses are required and will be assigned automatically. Other courses are considered electives.

***Some courses listed in this guide may be changed or canceled if there is insufficient student interest or if teachers cannot be assigned.***

## The International Baccalaureate Program

The IB Diploma Program is recognized as the flagship of the high school academic program. Students in grades 11 and 12 are encouraged to participate in the IB Program, which challenges students to master content knowledge and to acquire advanced critical thinking skills. Students are expected to use their creativity, to be actively involved in community service, to demonstrate proficiency in conducting independent research, and to be *reflective* through a balanced interdisciplinary approach to learning.

### The IB Diploma Requirements

Over the course of two years, Diploma candidates must complete the following:

- Coursework in each of six subject areas or *Groups*
- A course in Theory of Knowledge (TOK)
- An independent research project with an ICS supervisor (called the Extended Essay)
- An individualized program of learning achieved through creativity, action and service (CAS) activities in grades 11-12

### The Six Groups

The six academic areas an IB Diploma candidate is to pursue are distributed as follows:

- Group 1: First Language (A), usually English
- Group 2: Second Language (A, B or *ab initio*)
- Group 3: Individuals and Societies
- Group 4: Experimental Sciences
- Group 5: Mathematics
- Group 6: The Arts and Electives

Three subjects must be taken at a Higher Level (HL) and three should be taken at Standard Level (SL).

Students should choose their HL courses based on their strengths and interests. Humanities-oriented students may take English and History HL classes, whereas a future engineer might want to take Math and Science HL classes.

One course, Environmental Systems and Societies SL, is designated as both Group 3 and Group 4; it meets the requirement for both Groups.

For their Group 6 course, IB Diploma Candidates can choose IB Visual Arts, or a second course from Groups 1–4. Some students have opted for a third language, or Geography SL. Students interested in engineering typically take Chemistry with Physics as their Group 6 elective, and students interested in medicine as a career might take Chemistry with Biology as their elective, with one of them at the Higher Level.

### Why Take IB Courses or “Do the Diploma?”

The International Baccalaureate (IB) Diploma Program is a well-respected two-year university preparatory program which is based not on the curriculum of a single country but which combines the best elements of many national curricula. The IBDP contains features common to US high school curricula, English A-Levels and the French Baccalaureate, to name a few educational systems. The IB Diploma Program is offered by more than 3,716 schools in 142 countries. Students who meet the requirements of the program receive an internationally recognized IB Diploma. Although recognition varies from country to country, the Diploma in most cases assures students’ access to universities worldwide and university course credit or sophomore status at many North American colleges.

### Who Should Take IB Courses?

Well-motivated students are encouraged to complete the full IB Diploma. Depending on the university, the breadth and rigor of the IB Diploma is favorably considered for applicants who have taken advantage of it. In the United States, college admissions committees tend to regard IB Diploma graduates as a “class apart.”

For non-US bound students, successful completion of the IB Diploma can open doors to university systems (for example, European or Asian), which do not recognize ICS’s US-style high school diploma. US-bound students who are not ready to meet all the requirements of the full IB Diploma may take some IB courses and sit for the exams. Higher Level (HL) courses may be considered the equivalent of a first-year university course. Depending on the coursework and grade, students may earn university credit and academic scholarships for their work in high school.

Students who take IB courses are expected to complete *all* coursework including internal IB assessments, regardless of whether they take the IB exam or not.

### Online IB Courses (through Pamoja Education)

ICS students may pursue IB learning opportunities online through Pamoja Education courses, developed with and fully approved by the IB Organization, enabling students to qualify for the IB Diploma.

All Pamoja education online IB courses are:

- delivered over two years
- developed and taught by experienced IB teachers who have been specially trained in online pedagogy
- subject to the IB’s rigorous online course approval standards
- designed to ensure students master the curriculum and develop 21st century learning skills
- offered to classes of 10 to 25 students from around the world, providing a highly interactive and truly international online IB experience
- fully recognized in fulfillment of IB Diploma requirements or as individual IB courses.

### English 9 (Compulsory)

Grade 9 English provides students with an introduction to genre, including the novel, short stories, poetry, and drama, Greek Mythology and the essay. Students write for different audiences and purposes, producing research, descriptive, analytical and creative papers. Students will learn peer- and self-editing to improve their writing process. Regular vocabulary and grammar exercises are part of this class. In addition to class novels and works, students will choose supplementary pleasure reading books throughout the year. Throughout the course, students will work creatively, cooperatively and independently on a variety of activities designed to enhance intellectual and emotional growth.

### English 10 (Compulsory)

- Prerequisite: Successful completion of English 9

In this course students will read, analyze, and respond to multicultural literature in order to identify its unique and unifying aspects of character, theme, conflict, archetype, and imagery. Students will enhance their understanding and appreciation of the literature through cooperative projects, dramatic presentations, interdisciplinary study, writing translations and student-based teaching seminars. Developing skills in reading comprehension, vocabulary development, oral communication, and writing will be emphasized. Writing of all types will be encouraged, including narrative, research, exposition and literary analysis.

### IB English Language and Literature G11, Year 1

- Prerequisite: Successful completion of English 10

This is the first year of the two-year college preparatory English program. This course will give students from a wide variety of linguistic backgrounds the opportunity to reach a high level of competence in English and to develop their linguistic skills through the study of a wide range of texts. It also seeks to promote an appreciation of the wealth and subtleties of the English language, in comparison with other languages and cultures, and to facilitate the clear expression of ideas. Students will develop their powers of expression in both written and oral communication through critical reading and analysis of literary and nonliterary texts. Successful completion of the course will prepare students for the **IB Language and Literature** exam and assessments during grades 11-12.

### IB English Literature G11, Year 1

- Prerequisite: Successful completion of English Literature 9-10 or equivalent

For competent students of English literature, this is the first year of the two-year IB literature course. Students will develop critical reading skills through the in-depth study of literary texts in English, including four translated “World Literature” texts. Students will be assessed using the IB oral and written criteria. Two formal IB assessments, the Individual Oral Presentation and a written World Lit assignment, will be completed.

## IB English Language and Literature G12, Year 2 (SL or HL)

- Prerequisite: IB English Language and Literature G. 11

This is the second year of the two-year IB English course. Students will continue to refine their critical reading skills through the in-depth study and discussion of additional texts and cultural topics. IB written assessments will be revised and submitted early in the year, followed by the student's Individual Oral. Preparation and practice for the two May IB Examination papers will take place throughout the year.

## Creative Writing I/II – (Grades 9-12)

- Semester courses

Students will explore a variety of creative writing genres including poetry, fantasy, fiction, etc., and the class will produce a literary magazine at the end of each semester. Students who enroll for Creative Writing II will focus on playwriting (monologs and 10-minute plays) and scriptwriting with the goal of having a performance or viewing of one of their works at the end of the semester. Both courses will encourage students to pursue online and print publication. Students may take either or both courses.

## English as an Additional Language (EAL) (Grades 9-12)

- Teacher Recommendation

Our Secondary English as an Additional Language (EAL) program offers intensive but limited support in English for speakers of other languages. It includes listening, speaking, reading, writing, viewing and visually representing with particular emphasis on pronunciation, comprehension and academic vocabulary. The goal is to increase academic language proficiency so that students can participate to a greater degree in their regular English grade level.

## Amharic Literature (Grades 9–10)

- Prerequisite: Teacher approval

This course, for native Amharic speakers only, covers different literary genres, including the novel, short stories, poetry and drama. Students will write for different audiences, including literary essays and research-based essays. Vocabulary and grammar work is expected, and students will be expected to read for pleasure beyond the requirements of the course. This course will prepare students to enter the IB Amharic A Literature course in grades 11–12.

## IB Amharic A Literature G11, Year 1

- Prerequisite: Successful completion of Amharic Literature 9-10 or equivalent

For competent students of Amharic literature, this is the first year of the two-year IB literature course. Students will develop critical reading skills through the in-depth study of literary texts in Amharic, including four translated “World Literature” texts. Students will be assessed using the IB oral and written criteria. Two formal IB assessments, the Individual Oral Presentation and a written World Lit assignment, will be completed.

## IB Amharic A Literature G12, Year 2 (SL or HL)

- Prerequisite: IB Amharic A Literature in Grade 11

This is the second year of the two-year IB course. Students will develop critical reading skills through the in-depth study of literary texts in Amharic, including four translated “World Literature” texts. Students will be assessed using the IB oral and written criteria. Two formal IB assessments, the Individual Oral Presentation and a written World Lit assignment, will be completed.

## Journalism – (Grades 9-12)

- Semester courses

Learn the skills of reporting, feature writing, editing, design and layout, as well as ethical and legal guidelines, from a former UK journalist. Student articles will be featured in the *ICS Insider* and *Yezare Samint*.

## Debate and Speech – (Grades 9-12)

- Semester Courses

Learners will spend the entire semester engaging one another – individually and in teams – in various forms of debate and speech designed to develop their oral advocacy skills. In addition to participating in formal debates for and against a given proposition, learners will also explore opportunities for: recitation and dramatization of prose or poetry, improvisation or impromptu speech, duo interpretation and radio announcing. Team-building and group-work activities will create an atmosphere where learners will develop their own voice and ability to communicate effectively with others.



# •World Languages (IB Group 2)

## French 1 or Spanish 1

- Grade Level: 7–10

Students learn the fundamentals of the target language through the five basic components of communication: listening, understanding, speaking, reading and writing. The textbook is supplemented by games, oral presentations, and other individual and class activities. Oral expression is greatly emphasized. Students will also learn about Spanish or French culture and that of other Latin or francophone countries.

## French 2 or Spanish 2

- Grade Level: 8–10
- Prerequisite for Spanish 2: Completion of HS Spanish 1 or teacher approval.
- Prerequisite for French 2: Completion of HS French 1, completion of the two-year Middle School French program, or teacher approval.

Students will learn basic vocabulary and grammar structures. There will be reading and writing, but the main focus will be on oral expression; therefore, students should be prepared to speak mostly Spanish or French in the classroom. This course includes the study of some literature adapted to this level.

## French 3 or Spanish 3

- Grade Level: 9–12
- Prerequisite for Spanish 3: Successful completion of Spanish 2 or teacher approval
- Prerequisite for French 3: Successful completion of French 2 or teacher approval

Students will review basic vocabulary and grammar structures, and learn intermediate vocabulary and grammar structures. More focus will be put on reading and writing at this level, although oral expression will still be emphasized. Students should be prepared to speak only Spanish or French in the classroom. This course includes the study of literature adapted to this level.

## Advanced French Literacy – (Grades 9-12)

This course is designed for francophone students to develop their academic writing and critical reading in French.

## French 4/IB French B, Year 1

- Grade Level: 10–12
- Prerequisite: Successful completion of French 3 or approval of teacher

This course is taken as French 4 by grade 10 students and as IB French B Year 1 by grade 11 students. It introduces the formal study of Francophone literary works. Students will be exposed to an appreciable amount of French culture and history through the study of the lives and philosophies of selected authors. It continues basic language instruction, with overall grammar review throughout the year. It is a critical course for any student wishing to continue in French, and particularly for IB Diploma candidates wishing to study French as their Group 2 “Language B.”

## French 5/IB French B SL, Year 2

- Prerequisite: Successful completion of French 4

This course is for students in grade 11 or 12 who have successfully completed French 4, and who are working on the IB Diploma. Depending on their proficiency in the language, students will pursue the SL or HL course, both of which require two years of study. The student may elect to do the SL level course in grade 11; the HL course is only available to grade 12 students. Students will work with advanced vocabulary and grammar structures. Advanced reading and writing techniques will be practiced, with focus on analytical thought.

## IB French B HL G12, Year 2

- Prerequisite: Successful completion of IB French 4 or teacher recommendation

This course is for students fluent in French and requires writing, speaking, and the study of French literature. Students will continue to refine their critical reading skills through the in-depth study and discussion of additional texts and cultural topics. IB assessments are conducted early in the year, followed by the student's Individual Oral which is recorded in February. Preparation and practice for the two May IB Examination papers will take place throughout the year.

## IB Spanish ab initio 11 SL

- Two year program

Students learn the fundamentals of the language through the five basic components of communication: listening, understanding, speaking, reading and writing.

## IB Spanish ab initio 12 SL

- Prerequisite: Completion of IB *ab initio* Year 1

Students will learn basic and intermediate vocabulary and grammar structures. There will be reading and writing, but the main focus will be on oral expression; therefore, students should be prepared to speak only the target language in the classroom. This course includes the study of some literature adapted to this level. IB internal assessments will form a major portion of the grade. Students will be prepared for the *ab initio* Standard Level (SL) examination at the end of the year.

## Spanish 4/IB Spanish B, Year 1

- Grade Level: 10–12
- Prerequisite: Successful completion of Spanish 3 or approval of teacher

This course is taken as Spanish 4 by grade 10 students and as IB Spanish B Year 1 by grade 11 students. It introduces the formal study of Francophone literary works. Students will be exposed to an appreciable amount of Spanish culture and history through the study of the lives and philosophies of selected authors. It continues basic language instruction, with overall grammar review throughout the year. It is a critical course for any student wishing to continue in Spanish, and particularly for IB Diploma candidates wishing to study Spanish as their Group 2 “Language B.”

## Spanish 5/IB Spanish B SL, Year 2

- Prerequisite: Successful completion of Spanish 4

This course is for students in grade 11 or 12 who have successfully completed Spanish 4, and who are working on the IB Diploma. Depending on their proficiency in the language, students will pursue the SL or HL course, both of which require two years of study. The student may elect to do the SL level course in grade 11; the HL course is only available to grade 12 students. Students will work with advanced vocabulary and grammar structures. Advanced reading and writing techniques will be practiced, with focus on analytical thought.

## Mother Tongue Languages and Literature

ICS High School students may be able to study their mother tongue with a qualified tutor paid by the family. Please speak to the HS Counselor and/or the IBDP Coordinator if you would like to explore this option, either as an IB course or in grades 9-10. Under certain circumstances, this may qualify a student to earn a bilingual IB Diploma.

# • Humanities (IB Group 3)

## Modern World History Grade 9 (Compulsory)

The study of world history offers the student multiple opportunities to develop critical thinking, writing and public speaking skills. The students will develop skills to interpret evidence that at times can offer little, and at other times is overwhelming. Their ability to evaluate multiple competing resources from diverse media and the analytical ability to determine the qualities that make a good resource from different media will be covered. The subject matter covered includes the roles of the Industrial Revolution, the Enlightenment, the French Revolution, World War I and World War II in the development of today's world.

## United States History (G 10-12)

- Semester
- Prerequisite: Successful completion of Modern World History 9

This semester course begins with a brief overview of the discovery, exploration, and colonial settlement of America. Important historical events surrounding the struggle for freedom and democracy will be emphasized, including the Enlightenment, the Revolutionary War, drafting of the Constitution, and resultant expansion and reform. The Civil War and Reconstruction Period will be examined, including the experience of minorities and African Americans in particular. Relationships and developmental parallels between the US and Africa will be explored, especially those relevant to our host country, Ethiopia.

## Introduction to African History (G 10-12)

- Semester
- Prerequisite: Successful completion of Modern World History 9

This semester course begins with a review of the geography of Africa and a summary of its ancient and medieval history of kingdoms and civilizations. Important topics are the African slave trades, the Islamization and Arabization of North Africa, state formation and consolidation in the 19<sup>th</sup> century, the partitioning of and resultant "scramble for Africa," European colonial rule, making thematic links to more contemporary history, looking at the rise of African nationalism and struggle for independence, pan-Africanism, the post-independence politics of African states, and the future of democracy, human rights, and socio-economic development in Africa.

## Introduction to Economics (G10-12)

- Semester course

This course is organized into three parts. The first part focuses on the role of choice and value when individuals make decisions (microeconomics); the second part focuses on the role of aggregation when governments and large businesses consider legislation and policies (macroeconomics); and the third part focuses on ways to compare international trade (international economics).

## Introduction to Psychology (G10-12)

- Semester course

This course focuses on individual behavior and why an individual thinks, feels, and reacts to certain stimuli. Emphasis will be placed on research methods, stages in childhood and adolescence, how the brain works, altered states of consciousness, psychological testing, and psychological disorders. Assessments will require students to gather, sort, and evaluate appropriate evidence to answer questions, as well as to organize and express ideas and information in multiple formats.

## Introduction to Business (G10-12)

- Semester course

This course will introduce students to what a business is, how it operates, and how it is managed. Students will learn about the forms of ownership and the processes used in production and marketing, finance, personnel and management in business operations. Assessments will require students to gather, sort, and evaluate appropriate evidence to answer questions, as well as to organize and express ideas and information in multiple formats.

## Introduction to Anthropology (G10-12)

- Semester course

Anthropology is the study of humans. This course focuses on cultural, or social, anthropology, the subfield that describes, analyzes, interprets, and explains social and cultural similarities and differences. It is an elective class that allows the student to explore the human sciences. The course is designed to develop skills and habits valuable to a life long learner; teamwork, time management, problem solving and evaluation of resources. Assessments will require students to gather, sort, and evaluate appropriate evidence to answer questions, as well as to organize and express ideas and information in multiple formats.

## Introduction to Geography (G9–12)

- Semester course

This is a general course in both physical and human geography, with the first quarter concentrating on the elements of the earth and subjects such as volcanoes, earthquakes, and weathering/erosion, and how they affect populations. The second quarter is concerned with why populations live where they do, and how they

adapt to the natural environment, including population growth, migration, and health issues. Students who take this course in grades 9 or 10 will better be prepared to take IB Geography.

## Global Issues, Leadership and Action (G9-12)

- Semester course

Great leaders are not born: they have to learn and develop the skills necessary to inspire, manage, and motivate other people. They have to know how to speak confidently to large groups, communicate clearly and effectively, understand others' feelings and points of view, identify and adapt to others' strengths and weaknesses, and manage groups of people to help them be cohesive and goal-directed. "GILA" will give students practical experience in developing these skills and more. Through active and engaging experiences, students will learn and practice new skills, becoming more self-confident, self-aware and self-sufficient.

## Trial Law & Advocacy (G 9–12)

- Semester course

In this course students learn how a real-life litigator prepares and executes a trial. Each student will be working from a trial packet that includes the facts of the case, witness statements, and documentary evidence or exhibits. In addition, students will learn basic rules of evidence and courtroom procedure; they will also get an appreciation for the rule and practice of law. The course culminates with a mock trial competition in which student-attorneys will try the case before a judge and jury. The course is not only designed to give students a meaningful glance at the legal profession but it serves to enhance public speaking, oral advocacy, and problem solving skills that will in turn help ICS produce confident, creative, quick-witted and expressive students.

## IB Contemporary World History (G11–12SL)

- Two year program
- Prerequisite: teacher approval

IB Contemporary World History is a topical *introduction in depth* to some of the major events and political institutions that have shaped the twentieth century world. The themes of the rise and rule of single party states and Cold War diplomacy will be stressed. Students will gain detailed knowledge of "communism in crisis," which looks into the challenges faced by Eastern Europe, the Soviet Union and China from the mid 1970's through the end of the Cold War.

## IB Contemporary World/African History (G11–12 HL)

- Two year program
- Prerequisite: Grade 10 history

Higher Level IB History students cover the entire Contemporary World History course, along with the HL option focusing on Africa. Our selected period of African history is approximately 1884–2000. Although the political history of Africa is the main focus, emphasis is also given to Africa's economic, social and cultural history. Our study will focus on pre-colonial states and resistance to colonialism in Eastern and central Africa. We will also examine the period of European imperialism in Africa in depth.

## IB Geography (G11–12 SL or HL)

- Two year program
- Prerequisite: Grade 10 history or equivalent

Contemporary geography explains trends and developments in societies that are caused by the interactions between individuals, societies, and the physical environment. Geography also investigates the way people adapt to change and helps to evaluate management strategies associated with such change. The course integrates both physical and human geography, thus allowing the student to understand methodologies used both in the scientific and socio-economic spheres. Part of the coursework and IB assessment will be practical field experiences in the Addis Ababa area and other parts of Ethiopia. Over the two years, students will be prepared for the SL or HL IB exam.

## IB Theory of Knowledge (G11–12)

The goal of IB Theory of Knowledge (TOK) is to encourage students to reflect critically on the knowledge and experience they gain both in and out of the classroom. It also asks students to question the bases of knowledge as well as to consider subjective and ideological biases. Lastly, TOK asks the student to develop a personal approach of thought and opinion based on his/her analysis and synthesis of evidence that can be conveyed in a rational line of development.

TOK begins in Semester 2 in grade 11 and continues in Semester 1 of grade 12 (one full year). TOK is required for all IB Diploma candidates and strongly encouraged for all others in grades 11 and 12.

## Pamoja Online IB Business and Management SL (G11-12)

- Two year program

The IB Business and Management SL course is designed to develop students' understanding of business theory, as well as their ability to apply business principles, practices and skills. The application of tools and techniques of analysis facilitates an appreciation of complex business activities. The course considers the diverse range of business organizations and activities and the cultural and economic context in which business operates. Emphasis is placed on strategic decision-making and the day-to-day business functions of marketing, production, human resource management and finance.

The business and management course aims to help students understand the implications of business activity in a global market. It is designed to give students an international perspective on business and to promote their appreciation of cultural diversity in the business environment.

The ideals of international cooperation and responsible citizenship are at the heart of IB Business and Management. The course encourages the appreciation of ethical concerns and issues of social responsibility in the global business environment. Students should be able to make sense of the forces and circumstances that drive and restrain change in an interdependent and multicultural world. The course will contribute to students' development as critical and effective participants in local and world affairs.

## Pamoja Online IB Economics (G11–12)

- Two year program

The Economics SL and Economics HL courses provide students with core knowledge of economics and incorporate elements of history, geography, psychology, sociology, political studies and other related fields of study.

Economics is a dynamic social science which has many facets. At its core, economics is concerned with the concept of scarcity and problems of resource allocation. Students will analyze how markets function and the ways in which market factors and government policies influence unemployment, inflation and economic growth. They will also consider economic theory in the contexts of microeconomics, macroeconomics, international and developmental economics. The scientific approach characterizes the standard

methodology of economics, featuring a progression from problem identification, through hypothesis formulation and testing, and arriving finally at a conclusion.

*Differences between Economics HL and SL:* The Higher Level course in economics differs from the Standard Level course in terms of the hours devoted to teaching (240 hours for HL compared to 150 hours for SL) and the extra depth and breadth of study required for HL through the inclusion of "extension topics". These courses also differ with regard to the number of external assessment components (three examination papers for HL, two examination papers for SL) and the weighting of the examination questions.

### Pamoja Online IB Psychology SL (G11–12)

- Two year program

Psychology is the systematic study of behavior and mental processes. Psychology has its roots in both the natural and social sciences, leading to a variety of research designs and applications, and providing a unique approach to understanding modern society.

IB Psychology adopts an integrative approach - looking at the interaction between biological, cognitive and sociocultural influences on human behavior. It enables students to achieve greater understanding of them and to appreciate the diversity of human behavior. The ethical concerns raised by the methodology and application of psychological research are key considerations.

The course takes a holistic approach which fosters intercultural understanding and respect. In the core of the IB Psychology course, the biological level of analysis demonstrates what all humans share, whereas the cognitive and sociocultural levels of analysis reveal the immense diversity of influences that produce human behavior and mental processes. Cultural diversity is explored and students are encouraged to develop empathy for the feelings, needs and lives of others within and outside their own culture.



# • Sciences (IB Group 4)

## Biology Grade 9 (Compulsory)

Biology is the study of life. The goal of this one-year conceptual and laboratory-based course is to understand and explore the science of living things. Students will study the nature and make-up of life and its processes. The biology of microorganisms, animals, and plants will be studied. Students will gain an appreciation of the diversity of life and the complexity of genetics and ecological relationships. One focus for this course is the week-long trip to the Bale Mountains. Students will gather data from a variety of habitats and (hopefully) see the rare endemic Ethiopian wolf.

## Chemistry

Chemistry links the forces of physics to our existence in the world that comes alive in biology. Everything, from the sun burning to the melting of a frozen ice cream cone, falls within the realm of chemistry. Students actively investigate how atoms naturally rearrange themselves and also how mankind is able to mimic this and re-engineer matter in order to create materials of strength for structural buildings, key electrical parts for the functioning of computers, and materials that are now being used by medical doctors as temporary substitutes for human organs and/or tissue. This course is a must for any student who seeks a career in health-care, engineering or a science-related field, yet it also offers a better understanding of our evolving world for those students who desire to become involved as contributing citizens.

## Physics

- Prerequisite: Successful completion of Algebra 1 or Algebra/Geometry

Physics is the study of fundamental things such as motion, forces, energy, matter, heat, sound, light and composition of atoms. The ideas of physics are part of the foundation of biology and chemistry, as well. This one-year introductory course focuses on the conceptual knowledge about the rules of the physical world, and teaches how the equations of physics reveal the connections in nature. This course is a prerequisite for any student intending to enroll in the IB Physics course.

## Environmental Science (G 9–12)

- Semester Course

Our topics will include understanding ecosystems as the basic units of the natural world, human population, renewable resources and energy, pollution and its prevention, and working toward a sustainable future. The course will provide students with opportunities to explore environmental science concepts in the classroom, laboratory and in the field. The class will review case studies from all over the world, designing experiments and models to solve water problems, and field studies in local environments.

## Wildlife Conservation

- Semester course

Wildlife conservation explores the scientific study of Earth's biodiversity, with the aim of protecting species. In this course, students will explore the reasons for protecting species, as well as the impact of different types of conservation projects. The summary project will involve investigating local conservation projects (such as the Born Free Foundation) and developing a plan for a future conservation project.

## IB Environmental Systems and Societies (ESS) Grades 11–12(SL only)

- Two year program

As a transdisciplinary subject, environmental systems and societies is designed to combine the techniques and knowledge associated with Group 4 (the experimental sciences) with those associated with Group 3 (individuals and societies). By choosing to study a transdisciplinary course such as ESS as part of their IB Diploma, students are able to satisfy the requirements for both Groups 3 and 4 of the hexagon, thus allowing them to choose another subject from any hexagon group (including another Group 3 or 4 subjects).

The Environmental Systems and Societies course is offered at the Standard Level only. The prime intent of this course is to provide students with a coherent perspective of the interrelationships between environmental systems and societies. This perspective will enable them to adopt an informed personal response to the wide range of pressing environmental issues that they will inevitably come to face, rather than a purely journalistic appreciation of environmental issues.

## IB Biology Year 1

- Prerequisite: Biology 9

First exams in 2016 (Two year course taken in grade 11 and 12)

- Prerequisite: Biology 9 or 10

The study of biology allows students to gain knowledge and apply principles of the fundamental structures, processes, and systems that connect and unify our living world. While studying the IB Biology course, we reach far back in time to analyze evidence about the possible origins of life, and how life has changed over time. We also examine the work of modern scientists and scientific thinkers from all over the

world. Students have opportunities to model and design experiments, gather and interpret data, and present their findings to peers. IB Biology students visit local sites to see how biology can be applied in the field. By gathering data, students are able to learn hands-on lessons about Ethiopia's unique ecosystems. This course offers a solid foundation to any student who is considering a career in research, health-care, environmental science or science education.

**Standard Level** will include 6 core topics and 1 optional topic

**Higher Level** will include 11 core topics and 1 optional topic, and collaborating in a group centered on a common theme.

## IB Chemistry Year 1

- Prerequisite: Successful completion of Chemistry

First exams in 2016 (Two year course taken in grade 11 and 12)

- Prerequisite: Chemistry 9 or 10

The study of chemistry provides students with the opportunity to better comprehend themselves and the world in which they live. Known as the "central" science, chemical principles underpin both the physical environment in which we live and all biological systems. The IB Chemistry course provides opportunities for students to acquire knowledge, methods and techniques specific to chemistry as they study a range of topics. There is also the opportunity to apply chemical theory to real-life processes. Apart from being a subject worthy of study in its own right, chemistry is a prerequisite for many other courses in higher education, such as health-care, biological science, engineering, environmental science, and science education.

**Standard Level** will include 11 core topics and 1 optional topic

**Higher Level** will include 21 core topics and 1 optional topic

## IB Physics Year 1

- Prerequisite: Successful completion of Physics and Alg2 /Trig

First exams in 2016 (Two year course taken in grade 11 and 12)

- Prerequisites: Physics 9 or 10



Physics is the most fundamental of the experimental sciences, as it seeks to explain the universe, from the very smallest particles ‘quarks’ to the vast distances between galaxies. The IB physics course allows students to develop traditional practical skills and techniques and to increase facility in the use of mathematics, which is the language of physics. It also allows students to develop interpersonal skills, information, and communication technology skills, which are essential in modern scientific research. As students improve their understanding of our physical world, they also realize their ability to change our world. This course is important for any student interested in working as an engineer and/or in a science-related field.

**Standard Level** will include 8 core topics and 1 optional topic

**Higher Level** will include 12 core topics and 1 optional topic

### IB Biology G12, Year 2 (SL or HL)

- Prerequisite: Successful completion of IB Biology Y1

Students taking the higher level (HL) course will broaden their understanding of nucleic acids and proteins, cell respiration, photosynthesis, genetics, and human physiology. This course will also introduce plant science and extend into areas of ecology and evolution. The standard level (SL) course will extend into the areas of ecology and evolution, and provide ample time for a thorough review before examinations. Both grade 12 courses will involve a field trip that focuses on Ethiopian ecosystems and require two additional internal assessment lab write-ups.

### IB Chemistry G12, Year 2 (SL or HL)

- Prerequisite: Successful completion of IB Chemistry Y1

After successfully completing IB Chemistry Year 1, students may follow either the SL or HL course, pending the teacher’s recommendation and approvals. These courses will expand upon atomic structure, quantitative chemistry, periodicity, bonding, energetic, kinetics, equilibrium, acids and bases, electrochemistry, organic chemistry, measurements and data processing. Optional topics include analytical chemistry, human biochemistry, industry and technology, medicines

and drugs, environmental chemistry and food chemistry. Students who complete either course (HL or SL) will have a competitive advantage in their pursuit of majors related to engineering, industrial businesses and/or the field of health care.

### IB Physics G12, Year 2 (SL or HL)

- Prerequisite: Successful completion of IB Physics Y1

The second year of IB Physics provides more details about the physical world, through the concepts of atomic and nuclear physics as well as energy, power, and climate change. Optional topics include optics, relativity, astrophysics, communications and digital technology. This course is extremely important for any student interested in working as an engineer and/or science-related field.

# • Mathematics (IB Group 5)

*Please see the ICS Math Course flowchart pages 23-25 as you plan a sequence in mathematics that will help you achieve your university goals and plans. Due to ongoing curriculum development, there are slightly different flowcharts for each grade.*

## Algebra/Geometry (G9)

This is a new integrated course designed to include the key elements from both the previous “Algebra 1” and “Geometry” courses. Students will study solving and graphing linear equations, systems of linear equations, exponential functions, quadratics (graphing and solving), and applications of Pythagoras’ Theorem, trigonometry in right-angled triangles and applications of perimeter, area and volume formulae. In addition to this they will study units on Data-handling and Probability. The emphasis will be on gaining thorough understanding of concepts and on learning how to apply them. Most students will progress from this course into Grade 10 Math Topics; students who demonstrate consistent thorough understanding may have the opportunity to take Algebra 2/Trig in Grade 10.

## Geometry (G9)

- Prerequisite: Successful completion of Algebra 1

This course stresses the basic structures of geometry and includes the writing of direct and indirect proofs. This course allows students to use technology such as “Geo-gebra” to formulate theorems in Geometry. Topics included are properties of lines, triangles, polygons and circles, coordinate geometry, transformations, area and volume, constructions, 3-dimensional space and solid measurements, and right triangle trigonometry. This course also contains a continuous review of Algebra. Students successfully completing this course will be recommended for Algebra 2 / Trigonometry.

## Math Topics (G10)

This is an integrated course, with a strong emphasis on understanding the links between areas of mathematics and being able to combine skills and knowledge to solve complex real-life problems. Students will study applications of linear equations and graphs, efficient use of formulae, probability and expectation of combined events, presentation and analysis of data and statistics, problem-solving involving systems of equations, quadratic functions (further graphing and solving), trigonometry, geometry in 2- and 3-dimensions and financial applications of exponential functions. Students should end the course well-prepared for the IB Maths Studies course. Exceptional performance may give a student the option of SL Mathematics. Throughout the course students will learn to use a GDC (Graphic Display Calculator) efficiently, studying various techniques for solving problems and analyzing data. **They are expected to purchase one for use in class and at home.**

## Algebra 2/Trigonometry (G9/10)

- Prerequisite: successful completion of Algebra I and Geometry
- A graphic display calculator is required for this course.

This course is a requirement for all students intending to study IB SL or IB HL Mathematics in grades 11 and 12. The course continues to build on the concepts and skills mastered in Algebra I, and expands on these ideas with in-depth investigations of functions and on the study of functions. Linear, quadratic, polynomial, exponential, logarithmic, trigonometric functions and their various applications are studied symbolically, graphically and numerically. Problem solving and presentation skills will be further developed through both traditional methods and the use of the graphic display calculator and mathematical software.

## Advanced Mathematics (G10)

- Prerequisite: Algebra II Trigonometry and teacher recommendation
- A graphic display calculator is required for this course.

This course extends the concepts studied in Algebra II Trigonometry, and is primarily designed for those students who have finished this prerequisite course earlier than their peers. Students completing this course will go on to study IB HL Mathematics in grades 11 and 12. Students enrolled in Advanced Mathematics should have solid algebraic skills, a working knowledge of linear, quadratic, exponential, logarithmic and trigonometric functions, and a willingness to work hard. Throughout the course, the graphic display calculator and software packages are used to present alternate ways to solve problems and visualize mathematical concepts. Problem solving and presentation skills are a focus of the course.

## IB Mathematical Studies Grades 11–12 SL (two year course)

- Prerequisite: Completion of Algebra 1 and Geometry
- A graphic display calculator is required for this course.

This is a two year course. Math Studies introduces important mathematical concepts and applications through the development of mathematical techniques. This course is designed to build confidence and encourage an appreciation of mathematics in students who do not anticipate a need for math in their further studies. This course contains a broad range of math topics including further studies in numbers and algebra, sets and logic, functions, geometry and

trigonometry, statistics and probability, financial mathematics and differential calculus. The course has a practical approach. Part of the internal assessment is a math project that constitutes 20% of the final IB grade.

## IB SL Mathematics (G11 and 12) (two year course)

This is a two-year course intended for students with a strong mathematical background who expect to go on to study subjects that have a significant mathematical content. The course covers topics including linear and quadratic algebra, sequences and series, logarithms and exponents, functions, trigonometry, binomial expansions, probability, statistics and calculus. As part of the course, all students will complete a “Mathematical Exploration” counting towards 20% of their final grade.

## IB HL Mathematics (G 11–12) (two year course)

- Prerequisite: Strong grades in Algebra 2 trigonometry and teacher recommendation
- A graphic display calculator is required for this course.

IB higher Level Mathematics is a challenging two year program intended for those with very good mathematical ability. The majority of students studying IB HL Mathematics will be expecting to include mathematics as a major component of their university studies either as a subject in its own right, or within subjects such as physics, engineering or technology. The six core topics cover over the two year course include: Algebra, Functions, Trigonometry, Vectors, Statistics and Probability, and Calculus. As well, students will be required to study one of the following option topics in depth: Statistics and Probability, Sets and Relations and Groups, Calculus, or Discrete Mathematics. Students will also complete an extended exploration in mathematics in order to fulfill the internal assessment requirements of the program.

## Visual Arts Grades [9–10]

- Semester course

This course is for students who want to improve their art skills and concentrate on the elements and principles of art. Media used are drawing, painting, collage, print-making, sculpture, computer design and photography. Students at this level are given the freedom to concentrate on developing their skill in a chosen media. A portfolio and research workbook is required which serves to document the creative process. Art portfolios from this course may also be used to help the IB Coordinator and art teacher determine if a student is eligible for the IB Visual Arts course.

## Introduction to 3D Art

- Grade Levels: 9–12
- Semester Course

Students will explore a variety of different 3- dimensional art forms, including ceramic sculpture through hand building and wheel work, while learning about a range of ceramic artistic traditions. Students will also be able to explore wood and mixed-media sculpture and will be encouraged to push their creativity with recycled objects.

## Print-making

- Grade Levels: 9–12
- Semester Course

Printmaking is the art of producing multiples images. Students will learn to use printmaking techniques to create a series of original or identical images produced from a plate or block. Materials from drawing, painting and printmaking can also be combined to create new art forms. Students will be acquainted with the history of printmaking and view work by artists from various cultures and time periods as they develop an experimental approach to their projects.

## Painting

- Grade Levels: 9–12
- Semester Course

Students will use design principles to explore and experiment with variety of painting techniques and historical approaches to painting, using watercolor, acrylic, and oil paints. Painting is a problem-solving course dealing with form, color, line, and texture (figurative and abstract). Through the use of the world outside the classroom, models, drawings, photographs, and imagination, students will interpret and express the painter's world.

## Photography

- Grade Levels: 9–12
- Semester Course

Students will learn to see the world through a lens and to think using the language of still and moving images and effects. The first quarter will focus on the still image, including a history of photography, light, focus, and special effects including digitally altered imagery. Conceptual development will be emphasized, including how techniques can be employed for desired effects. The students will produce a portfolio of still and video works.

## Film Studies

- Grade Levels: 9–12
- Semester Course

Learn the essential skills of video production, including lighting, editing and sound. The second part of the course will focus on analyzing films as texts: the language of film, costumes and music, lighting and camera movement, and a survey of film history.

## IB Visual Arts G11, Year 1 SL

- Prerequisite: Recommendation by IB Visual Arts teacher

Grade 11 students may begin the first year of a rigorous two-year program of study and art production, leading to the Standard or Higher Level IB Visual Arts in Year 2. Students in IB Year 1 will explore different media and techniques. The course includes opportunities both for structured learning of the principles and elements of design and for wide-ranging personal research of a more experimental nature. Please ask for more information about IB Visual Arts syllabus.

## IB Visual Arts G12, Year 2 SL or HL

- Prerequisite: Recommendation by IB Visual Arts teacher

This course is the second year of a rigorous two-year program of study and art production, and will prepare students to complete the SL or HL Visual Arts examination in April. During the final year of the course, students will follow their own artistic journey rather than respond to teacher-provided assignments. The focus is on personal interpretation and individual artistic statements. The experience for SL and HL students is basically the same, except that HL students are expected to produce more work.

## Choir

- Grade Levels: 9–12
- Prerequisite: singing or piano experience preferred

This vocal ensemble performs **several** times a year. Attendance at all performances is required to receive full credit for the class. Through a wide range of musical styles, students will explore the concepts of vocalization, tone production, vowel and consonant sounds while developing singing, sight singing techniques and posture. Travel opportunities to the annual TAISM Festival of Choirs will also be available to interested Choir members. Student will have the opportunity to join AMIS Honor Choir Festivals if their audition recordings are accepted.

## Band

- Grade Levels: 9–12
- Prerequisite: 3 or 4 years playing experience.

Concert band is a full year course for students who desire to become advanced players. Attendance at all performances is required in order to receive full credit for the class. Students will continue their study of music theory, history, and performance and musicianship skills. Students will continue to refine their tone production, intonation, balance and blend with other players in the ensemble. The annual ISSEA Band Festival is an event to which a selected group of musicians will travel. Students will have the opportunity to audition to join AMIS High School Honor Band Festivals every few years in rotation with the Middle School honor band festivals, should their audition recordings be accepted.

## Beginning Guitar

- Grades 9-12
- semester course

Students will learn and apply music fundamentals to the guitar, including proper technique, reading music notation, fingerboard geography, rhythmic skills, style and interpretation, listening and performance etiquette.

## Drama

- Grade Levels: 9–12
- Semester Course

Students will develop an understanding of and appreciation for Theatre Arts as a performance art form. We will use IB standards and benchmarks including performance skills, world theatre studies, practical play analysis and theatre production. Being

assessed through projects, performances, and readings, students will learn about different aspects of theater production, including acting, scriptwriting, directing, set design and stage production. Students will develop teamwork and collaboration skills, creativity and critical thinking. Students will be expected to take part in ensembles, in-class readings, improvisations and scenes, and will attend out-of-class performances whenever possible.

## **Movement and Dance**

- Grade Levels: 9–12
- Semester Course

This course is designed for students to: a) enhance their body awareness through guided movements; b) expand their creativity through dance performances, and c) awake their interest for dance as a vehicle for self-expression and understanding across cultures. The course focuses on the standards of performance, creation, analysis and cultural awareness. Emphasis will be made not only in developing the necessary skills for those standards but also in encouraging a positive attitude towards learning. In order to achieve these goals, it is expected that students reflect on the meaning of movement and dance, gain self-confidence to improvise and share their ideas as part of a team work, especially in the creation of choreographies and the development of Project Based Learning tasks.

# •Computing

## Computer Programming 1

Grades 9-12 - Semester Course

No prerequisite.

Students will learn to write computer programs using industry-standard languages. Students with an interest and ability in Mathematics or Science will use Python to create problem-solving and analytical programs. Students with a more creative interest will use Processing (a version of Java) to create dynamic and interactive graphical programs. Students will learn and use the logical skill of Computational Thinking to analyze problems and develop solutions. Students will develop programs to meet given specifications, and will have the opportunity to develop their own programs.

## Computer Application Development 1

Grades 9-12 - Semester Course

No prerequisite.

Students will learn to use a development tool and programming language to build applications that will work on most computer and mobile operating systems. Students will learn and use the logical skill of Computational Thinking to analyze problems and develop solutions. Working individually and in groups, students will develop computer applications for a variety of purposes. Students will have the opportunity to develop and market their own application.

# • Physical Education

## Physical Education & Health 9/10 (One Year Each)

- Grade Levels: Required in grades 9 and 10

PE & Health is offered to prepare students for a life of activity, social interaction and physical well-being. The improvement of students' coordination, endurance, strength and ability will be encouraged through participation in various physical activities: track and field, volleyball, soccer, basketball, badminton, tennis, table tennis, softball, hockey, gymnastics and physical fitness training. Finally, students will demonstrate cooperation, sportsmanship, teamwork, and sensitivity to individual differences in abilities.

Our Health curriculum will be folded into our PE courses, to provide more elective course selection for grades 9 and 10. Students will have four short health units per year in both grades 9 and 10. The health curriculum is designed so that the students will be able to gain a better insight into the nature and function of their bodies, their environment, and the intricate relationship between the two. Through self-assessment, peer coaching, research and real life connections, students will be able to gain a better idea of how their health affects their lives. The topics discussed will include: healthy life components, stress, fitness, weight control, nutrition, sleep, drugs, sexuality, first aid, diseases including HIV/AIDS, and more.



## High School Learning Support (Grades 9–12)

- Prerequisite: Teacher recommendation and assessment

This course provides support in a small group setting for students struggling with study skills or academic classes, or for students diagnosed with a specific learning difference. Students receive specific assistance to support their learning needs.

## Elementary Tutor (Grades 11–12)

- Prerequisite: Teacher and Counselor approval

Students in grades 10–12 may receive one (.5 or 1.0) elective credit in their high school program for satisfactory work performed as a tutor. Students interested in assisting a teacher should have a strong interest in service accompanied by personal qualities of dependability, punctuality, hard work, and confidentiality. Peer Tutors can work in elementary, middle or high school classrooms. Teacher aides will be graded on a Pass (“P” for credit) or Fail (“F” for no credit) basis unless a specific grading contract has been developed and approved.

## Grade 11 Seminar

- Required in semester 1

Students will learn how to learn in their final two years of high school, including how to take charge of their IB course learning, SAT preparation, and the career planning and college application processes. Students will pursue their own CAS learning outcomes, beginning by planning the annual Grade 11 CAS trip in November.

## Senior Sampler G12

- Required in semester 2

Grade 12 students will examine the elements of a successful and happy post-ICS life, including technology expectations, personal finance, and taking advantage of social and intellectual opportunities at college. In addition, students will complete their final CAS reflections on the learning outcomes they have achieved for themselves in their individual CAS activities during grades 11-12.

## Independent Study (Grades 9–12)

- Prerequisite: Counselor and Principal approval

Students may need to enroll in independent study in a subject area due the unusual circumstances related to their special needs, unavoidable conflict in scheduling a course required for graduation, or other circumstances. Special consideration may be given to students in such cases. Consultation between the counselor, teacher, the student, parents and administration will need to occur prior to making arrangements for a course in independent studies. All independent study courses will be supervised either in a supervised study room or another appropriate location. Independent Study will be graded on a Pass (“P” for credit) or Fail (“F” for no credit) basis unless a specific grading contract has been developed and approved.

## Independent Online

- Application + principal's approval required

'MOOCs' – Massive Open Online Courses – are changing the way we access education. Provided by leading universities and academics, these courses are 'open' and free to anyone in the world who wishes to learn. Students who wish to enroll in Independent Online study will have an ICS teacher/facilitator, research and choose a MOOC, then complete the coursework and a blog on their learning experiences. Principal's approval (prior demonstration of independence in learning) and an application from the ICS IT department are required.

## Mathematics Department Philosophy

The age of information and technology has rapidly expanded the field of mathematics. In order to develop confident, effective students of mathematics, the mathematics teachers at ICS Addis endorse four primary beliefs.

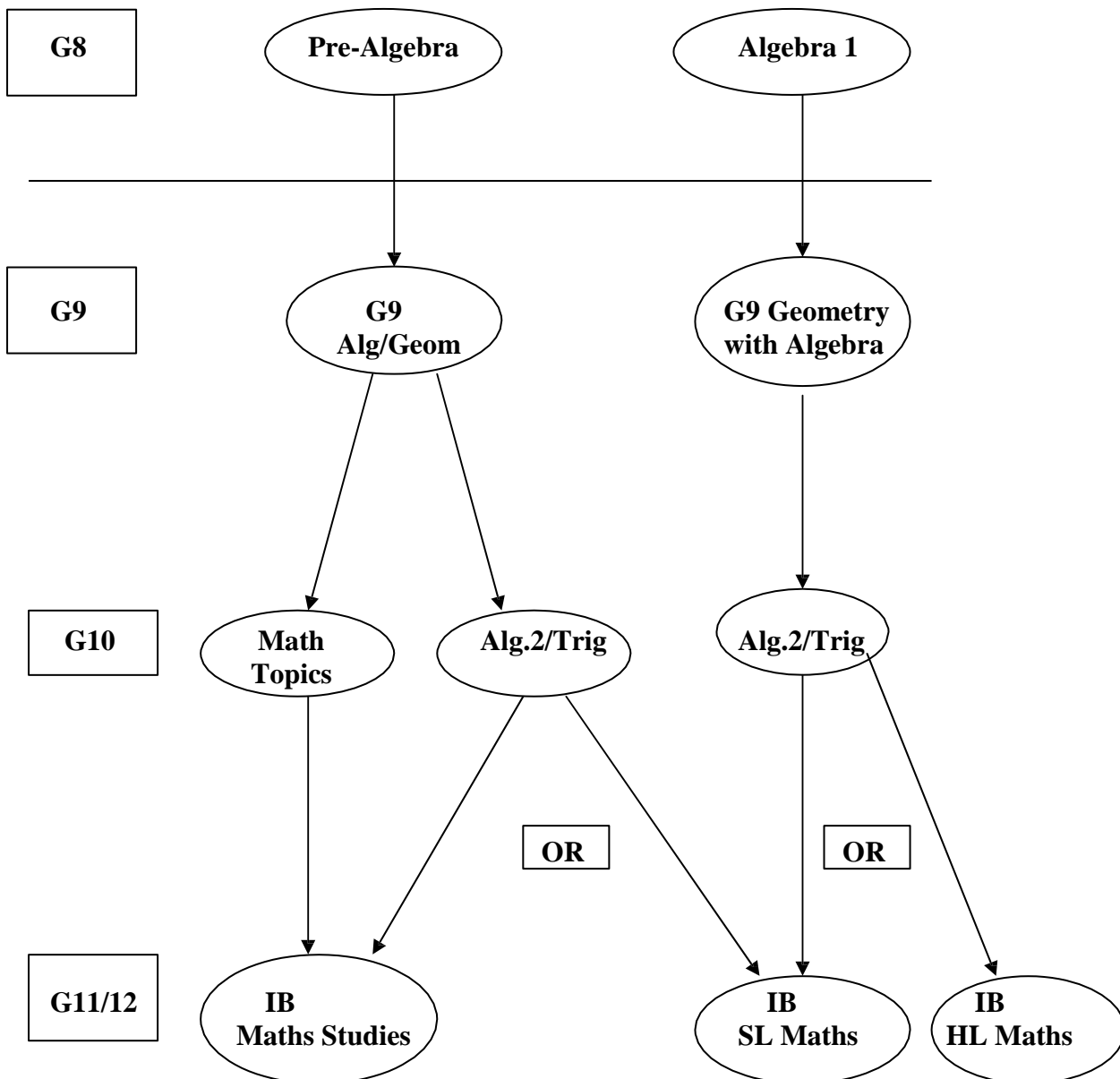
- Students are capable of learning mathematics and gaining confidence in their understanding.
- Students can appreciate and value the connections of mathematics in their daily lives.
- Students are able to communicate mathematical ideas.
- Students can become effective, versatile problem solvers with the ability to reason logically.

ICS has planned a sequence that allows students to take four years of mathematics at an appropriate level. The following flowcharts illustrate the recommended mathematical paths for students. Students wishing to sit an exam in Math Studies **MUST** complete Algebra by the *beginning* of their grade 10 year, or make arrangements for additional summer study before beginning grade 11. Students wishing to sit an exam in Higher or Standard Level Math **MUST** complete Algebra 2 / Trig by the beginning of their grade 11 year.

# ICS math course flowcharts

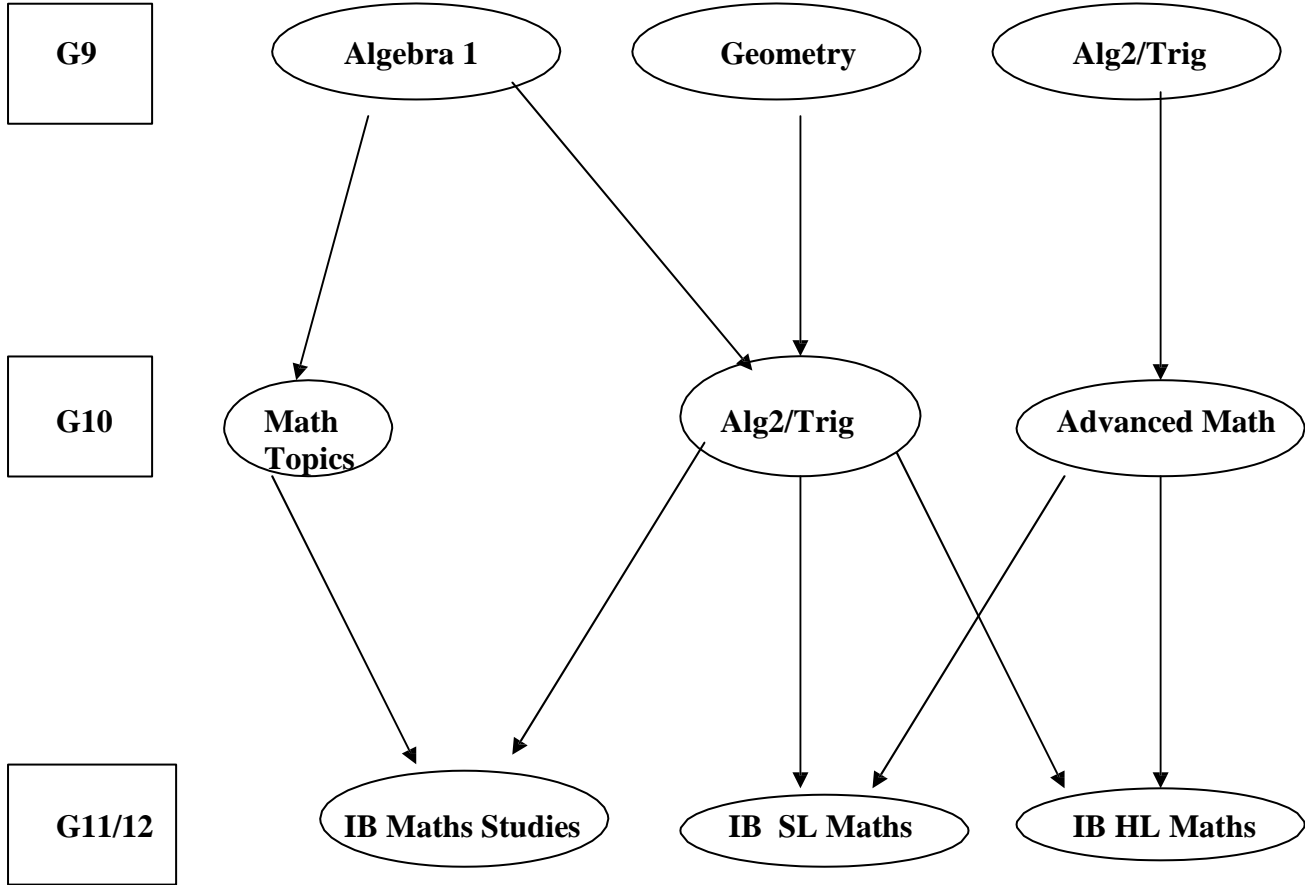
## Current Grade 8 Students

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## Flowchart for Current Grade 9 Student

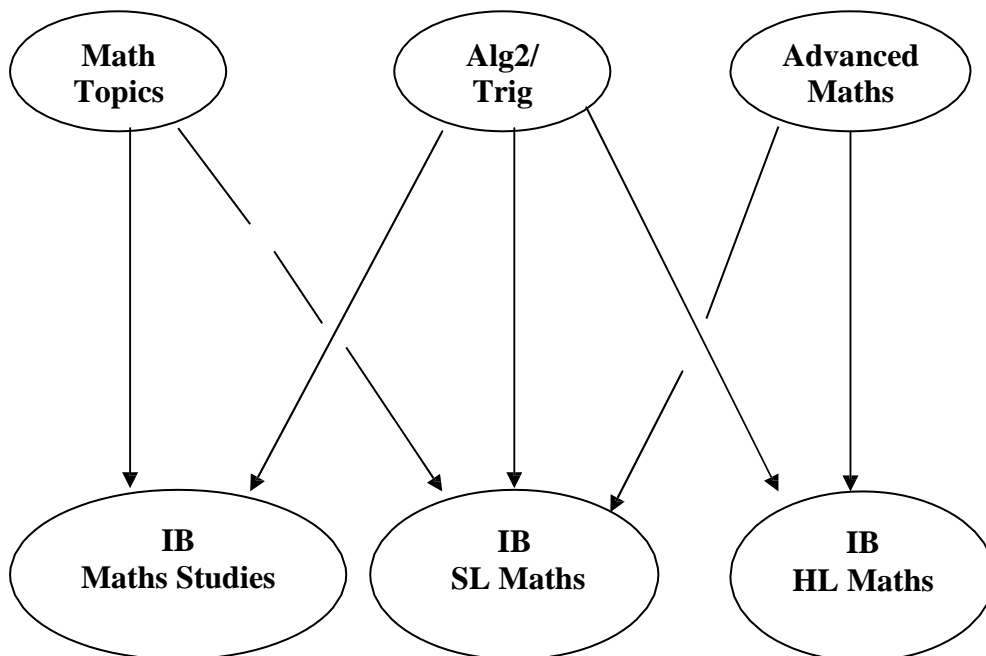
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## Flowchart for Current Grade 10 Student

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**G 10**



**G11/12**

4 year course options

Subject	Grade 9	Grade 10	Grade 11	Grade 12
English and Amharic (English is required for all students)	<ul style="list-style-type: none"> <li>•English 9 (Compulsory)</li> <li>•Amharic for non –Ethiopian students</li> <li>Amharic Literature</li> <li>•Creative Writing I/II</li> <li>•English as an Additional Language (EAL)</li> <li>. Debate and Speech</li> <li>. Journalism</li> </ul>	<ul style="list-style-type: none"> <li>•English 10 (Compulsory)</li> <li>Amharic for non –Ethiopian students</li> <li>•Amharic Literature</li> <li>•Creative Writing I/II</li> <li>•English as an Additional Language (EAL)</li> <li>. Debate and Speech</li> <li>. Journalism</li> </ul>	<ul style="list-style-type: none"> <li>•IB English A Language and Literature G11 Y1</li> <li>•IB Amharic A Literature G11, Y1</li> <li>•Creative Writing I/I</li> <li>. Debate and Speech</li> <li>• Journalism</li> </ul>	<ul style="list-style-type: none"> <li>•IB English Language and Literature Gr. 12 Y2 SL/HL</li> <li>•IB Amharic A Literature , Y2 SL/HL</li> <li>•Creative Writing I/II</li> <li>. Debate and Speech</li> <li>. Journalism</li> </ul>
Humanities	<ul style="list-style-type: none"> <li>•Modern World History 9 (Compulsory)</li> <li>•Intro to Geography</li> <li>•Global Issues, Leadership and Action</li> <li>•Trial Law and Advocacy</li> </ul>	<ul style="list-style-type: none"> <li>•US History 10</li> <li>• Intro to African History 10</li> <li>•Intro to Business</li> <li>•Intro to Economics</li> <li>•Intro to Psychology</li> <li>•Intro to Geography</li> <li>•Global Issues, Leadership and Action</li> <li>•Anthropology</li> <li>•Trial Law and Advocacy</li> </ul>	<ul style="list-style-type: none"> <li>•US History 10</li> <li>• Intro to African History 10</li> <li>•Intro to Economics</li> <li>•Intro to Psychology</li> <li>•Intro to Business</li> <li>•Intro to Geography</li> <li>•IB Contemporary World History SL</li> <li>•IB Contemporary World History HL</li> <li>•IB Geography SL/HL</li> <li>•IB TOK</li> <li>•Anthropology</li> <li>•Trial Law and Advocacy</li> <li>•Global Issues, Leadership and Action</li> <li>•Pamoja online IB Economics</li> <li>•Pamoja online IB Business and Management SL</li> <li>•Pamoja online IB Psychology SL</li> </ul>	<ul style="list-style-type: none"> <li>•US History 10</li> <li>• Intro to African History 10</li> <li>•Intro to Economics</li> <li>•Intro to Psychology</li> <li>•Intro to Business</li> <li>•Intro to Geography</li> <li>•IB Contemporary History SL</li> <li>•IB Contemporary World History HL</li> <li>•IB Afr. History HL</li> <li>•IB Geography SL/HL</li> <li>•IB TOK</li> <li>•Anthropology</li> <li>•Trial Law and Advocacy</li> <li>•Global Issues, Leadership and Action</li> <li>•Pamoja online IB Economics</li> <li>•Pamoja online IB Business and Management SL</li> <li>•Pamoja online IB Psychology SL</li> </ul>
Sciences	<ul style="list-style-type: none"> <li>•Biology 9 (Compulsory)</li> <li>•Physics</li> <li>•Chemistry</li> <li>•Environmental Science</li> <li>•Wildlife Conservation</li> </ul>	<ul style="list-style-type: none"> <li>•Chemistry</li> <li>•Physics</li> <li>•Environmental Science</li> <li>•Wildlife Conservation</li> </ul>	<ul style="list-style-type: none"> <li>•IB Biology Y1</li> <li>•IB Chemistry Y1</li> <li>•IB Physics Y1</li> <li>•IB Environmental Systems and Societies SL</li> <li>• Chemistry</li> <li>•Physics</li> <li>•Environmental Science</li> <li>• Wildlife Conservation</li> </ul>	<ul style="list-style-type: none"> <li>•IB Biology G12 Y2 SL/HL</li> <li>•IB Chemistry G12 Y2 SL/HL</li> <li>•IB Physics G12 Y2 SL/HL</li> <li>•IB Environmental Systems and Societies SL</li> <li>•Chemistry</li> <li>•Physics</li> <li>• Environmental Science</li> <li>• Wildlife Conservation</li> </ul>
Mathematics	<ul style="list-style-type: none"> <li>•Alg/Geometry</li> <li>•Geometry</li> <li>•Algebra 2/Trigonometry</li> </ul>	<ul style="list-style-type: none"> <li>•HS Math Topics</li> <li>•Algebra II / Trig</li> <li>•Advanced Maths</li> </ul>	<ul style="list-style-type: none"> <li>•IB Math Studies SL</li> <li>•IB HL Maths</li> <li>•IB SL Maths</li> </ul>	<ul style="list-style-type: none"> <li>•IB Math Studies SL</li> <li>•IB HL Maths</li> <li>•IB SL Maths</li> </ul>
Modern Languages	<ul style="list-style-type: none"> <li>•French 1</li> <li>•French 2</li> <li>•Advanced French Literacy</li> <li>•Spanish 1</li> <li>•Spanish 2</li> <li>•Mother Tongue Language and Literature</li> <li>•Amharic for non-Ethiopian Students</li> <li>•Amharic Literature</li> </ul>	<ul style="list-style-type: none"> <li>•French 2</li> <li>•French 3</li> <li>•French 4</li> <li>•Advanced French Literacy</li> <li>•Spanish 2</li> <li>•Spanish 3</li> <li>•Mother Tongue Language and Literature</li> <li>•Amharic for non-Ethiopian Students</li> <li>•Amharic Literature</li> </ul>	<ul style="list-style-type: none"> <li>•IB Spanish ab initio 11 SL</li> <li>•IB French B Y1</li> <li>•Advanced French</li> <li>•French 4</li> <li>•French 5</li> <li>•IB Spanish B Y1</li> </ul>	<ul style="list-style-type: none"> <li>•IB Spanish ab initio 12 SL</li> <li>•IB French B SL Y2</li> <li>•IB French B HL G12 Y2</li> <li>•French 4</li> <li>•French 5</li> <li>• IB Spanish B Y1</li> </ul>
Arts	<ul style="list-style-type: none"> <li>•Visual Arts</li> <li>•Drama</li> <li>•Choir</li> <li>•Band</li> <li>•Intro to 3D Art</li> <li>•Print-making</li> <li>•Painting</li> <li>•Photography</li> <li>•Film Studies</li> <li>•Beginning Guitar</li> <li>•Movement and Dance</li> </ul>	<ul style="list-style-type: none"> <li>•Visual Arts</li> <li>•Drama</li> <li>•Choir</li> <li>•Band</li> <li>•Intro to 3D Art</li> <li>•Print-making</li> <li>•Painting</li> <li>•Photography</li> <li>•Film Studies</li> <li>•Beginning Guitar</li> <li>•Movement and Dance</li> </ul>	<ul style="list-style-type: none"> <li>•IB Visual Arts G11 Y1 SL</li> <li>•Choir</li> <li>•Band</li> <li>•Drama</li> <li>•Visual Arts 1</li> <li>•Intro to 3D Art</li> <li>•Print-making</li> <li>•Painting</li> <li>•Photography</li> <li>•Film Studies</li> <li>•Beginning Guitar</li> <li>•Movement and Dance</li> </ul>	<ul style="list-style-type: none"> <li>•IB Visual Arts G12 Y2 SL/HL</li> <li>•Choir</li> <li>•Band</li> <li>•Drama</li> <li>•Visual Arts 1</li> <li>•Intro to 3D Art</li> <li>•Print-making</li> <li>•Painting</li> <li>•Photography</li> <li>•Film Studies</li> <li>•Beginning Guitar</li> <li>•Movement and Dance</li> </ul>

Computing	<ul style="list-style-type: none"> <li>• Computer Programming 1</li> <li>• Application Development 1</li> </ul>	<ul style="list-style-type: none"> <li>• Computer Programming 1</li> <li>• Application Development 1</li> </ul>	<ul style="list-style-type: none"> <li>• Computer Programming 1</li> <li>• Application Development 1</li> </ul>	<ul style="list-style-type: none"> <li>• Computer Programming</li> <li>• Application Development 1</li> </ul>
Physical Education	<ul style="list-style-type: none"> <li>•Physical Education and Health 9 (Compulsory)</li> </ul>	<ul style="list-style-type: none"> <li>•Physical. Education and Health 10 (Compulsory)</li> </ul>		
Other Courses	<ul style="list-style-type: none"> <li>•High School Learning Support</li> <li>•Independent Study</li> <li>•Independent Online Study</li> </ul>	<ul style="list-style-type: none"> <li>•High School Learning Support</li> <li>•Independent Study</li> <li>•Independent Online Study</li> </ul>	<ul style="list-style-type: none"> <li>•High School Learning Support</li> <li>•Independent Study</li> <li>•Elementary Tutor</li> <li>•Grade 11 Seminar</li> <li>•Independent Online Study</li> </ul>	<ul style="list-style-type: none"> <li>•High School Learning Support</li> <li>•Independent Study</li> <li>•Elementary Tutor</li> <li>•Senior Sampler</li> <li>•Independent Online Study</li> </ul>