

TASHKENT INTERNATIONAL SCHOOL

IB SUBJECT CHOICES

IB Diploma candidates choose 6 subjects to study over 2 years according to the following requirements:

- One subject must be selected from each IB Group 1-5
- For Group 6 a student may either select Music/Art or select a second subject from Groups 1-4. Students who select Music/Art must also select a second Group 1-4 subject in case it is not offered.
- To start the year, 4 subjects must be selected at the Higher Level (HL = 240 hours of class time)
 - IB requires 3 HL classes. The weakest of 4 may be dropped to standard after the first quarter
 - Higher Level subjects require a minimum grade of 5 in the corresponding 10th grade classes
- The remaining 2 subjects must be selected at the Standard Level (SL = 150 hours of class time)
- Language A1 does not teach reading and writing. It is a literature analysis class with a lot of reading.
 - The selection of A1 and A2 class or two A1 classes may qualify as a Bilingual Diploma
 - Either English A1 or English A2 must be selected
 - Language A1 is a reading course and designed to be challenging for native speakers and should be taken in a student's first language. A second A1 qualifies as a Group 2 Subject.
 - Where a student's first language is not offered, it may be studied Self-Taught with a tutor.
- Math Higher Level is a very challenging class and entrance is by testing only
- *Not all subjects and combinations listed below may be available for next year. This depends on the number of students that sign up for a subject as well as scheduling and staffing constraints.*

IB Group	Higher Level Subjects (select 4)	Standard Level Subjects (select 2)
1 Language A (1 st Language)	English A1 Korean A1 Russian A1 (A1 is by recommendation only)	English A1 Korean A1 Russian A1 Self Taught_____
2 Language B (2 nd Language)	English A2 Russian B (more than 2 yrs) French B (more than 2 yrs)	English A2 Russian ab initio (less than 2 yrs) Russian B (more than 2 years) French ab initio (less than 2 yrs) French B (more than 2 yrs)
3 Individuals & Societies	History Economics ITGS (Information Technology in a Global Society)	History Economics ITGS (Information Technology in a Global Society)
4 Experimental Sciences	Biology Chemistry Physics	Biology Chemistry Physics
5 Mathematics	Math Higher Level (By testing only)	Math Studies Math Standard Level
6 Arts & Elective	Music (for university not easy) Art (for university not easy)	Music (for university not easy) Art (for university not easy)
All Students	Theory of Knowledge (100 hours), Extended Essay (40+ hours out of class) CAS – Creativity Action Service (4+ hours reflected on each week outside class)	

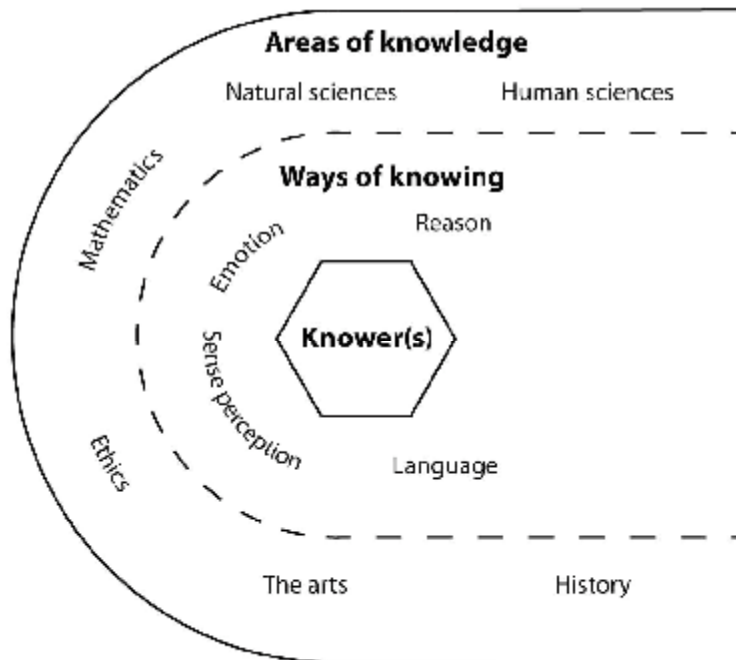
You may identify any other subject(s) you wish offered: _____

Updated December 2008

Theory of Knowledge (ToK)

All students study ToK

Theory of Knowledge is a course unlike any other you have taken. It does not have a distinct content or subject matter. Rather, the aim of the course is to investigate how different subject areas like natural science, social science, mathematics, history, art and ethics interpret knowledge (epistemology) and *how* each seek knowledge (methodology). In essence, ToK examines the problems of knowledge. Few of our discussions have right answers and some may invite controversy and varied opinions.



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Course aims (from International Baccalaureate Organization, 2006)

1. Analyse critically knowledge claims, their underlying assumptions and their implications.
2. Generate questions, explanations, conjectures, hypotheses, alternative ideas and possible solutions in response to knowledge issues concerning areas of knowledge, ways of knowing and students' own experience as learners.
3. Demonstrate an understanding of different perspectives on knowledge issues
4. Draw links and make effective comparisons between different approaches to knowledge issues that derive from areas of knowledge, ways of knowing, theoretical positions and cultural values
5. Demonstrate an ability to give a personal, self-aware response to a knowledge issue
6. Formulate and communicate ideas clearly with due regard for accuracy and academic honesty.

Assessment details

You will be graded on essays, oral presentations, and your notebook.

Prerequisites and Special Requirements

None. Arrive with an inquiring mind, ready to discuss and think about your preconceptions and beliefs about what you know, how you know and the different ways of knowing.

Who should choose this course?

ToK is taken by all students in grades 11 and 12 at TIS and it is an IB Diploma requirement.

Reference:

International Baccalaureate Organization, Diploma Programme Theory of Knowledge Guide. Cardiff, United Kingdom: International Baccalaureate Organization, 2006.

Group 1: ENGLISH A1

Higher and Standard Level

The English A1 program is a very rigorous literature course usually studied at the first language level of the student. It encourages the development of an appreciation of literature and the knowledge of a variety of cultures and societies through discussion and analysis of literature, responding both formally and creatively. Because the programme does not limit the study of literature to the achievements of one culture, with the study of World Literature*, which is a central and integral part of the program, the student should gain a broadened, international perspective of literature from cultures other than English-speaking cultures.

* *books translated from any other language into English*

The difference between HL and SL

Number of works to be read and analysed: 15 (HL) and 11 (SL)

World Literature essay: 2 HL and 1 (SL)

Course Content

In addition to learning how to analyse poetry and prose, there is a very demanding syllabus of 15 works (11 for SL) to be studied throughout the two years.

This course is intricately designed to cover all genres, literary eras, major poets, writers and playwrights, a variety of regions and even some books translated from other languages into English. Some works are chosen from a Prescribed Book List compiled by IBO and others are the school's free choice. This results in a balanced programme of "classics" and more recent works, lending itself to representing a gamut of styles, cultures and preferences.

Once these works have been read and analysed, students are required to respond to them in various ways: orally, comparatively in a formal essay, creatively through writing and the spoken word and formally through exam essays and individual oral commentaries.

Assessment Details

External exams consist of an Unseen Commentary on a poem or a piece of prose and a Formal Literary Analysis essay (2 papers).

During the two-year period, students are expected to produce two formal pieces of writing based on their World Literature works. These are externally assessed.

There are also two oral requirements: one is a formal oral commentary and the other is a more relaxed interactive oral presentation.

Prerequisites and special requirements

English should be the candidate's native language or be proficient at an advanced level

Who should choose this course?

- Students who are native speakers or have advanced English language proficiency
- Students who enjoy reading
- Students who are able to write academic essays

Who should not choose this course?

- Students who do not have advanced English skills
- Students who do not like reading
- Students who are not strong in terms of literary analysis
- Students who do not have strong essay-writing techniques

Reference:

International Baccalaureate Organization, Diploma Programme Language A1 April 1999. Geneva, Switzerland: International Baccalaureate Organization, 1999.

소개 및 목표

언어 영역 중 A1은 자신의 모국어를 공부하는 영역입니다. 문학 작품을 교재로 선정하여 깊이 있게 2년 동안을 공부합니다. 한국의 고전문학과 현대문학 그리고 한국어로 번역된 세계문학을 비교 분석합니다. 폭넓고 깊이 있는 학습을 위해 다양한 학습자료를 활용합니다. 모국 문학을 비롯하여 세계문학에 대한 지식을 얻고, 학생들이 문학에 대한 흥미를 키우고, 다양한 표현 방법을 익히게 하는 것이 이 과정의 목표입니다.

하이레벨(H.L)과 스펀다드레벨(S.L)의 차이점.

배우는 문학 작품의 수가 많고 적음을 의미합니다. 하이레벨(H.L)과 스펀다드레벨(S.L)의 작품의 수는 다음과 같습니다.

하이레벨(H.L) : 한국문학작품 (11작품), 한국어로 번역된 세계문학 (4작품) 하이레벨 과정의 학생은 세계문학 작품을 배운 후, 1000-1500단어로 글쓰기 (Essay)과제를 각각 2회 제출 합니다

스텐다드레벨(S.L) : 한국문학작품 (7 작품), 한국어로 번역된 세계문학 (4작품) 스펀다드레벨 과정의 학생은 1000-1500단어로 된 글쓰기(Essay)과제를 1회 제출합니다.

수업내용

수업은 크게 네 과정으로 진행됩니다.

과정1 세계문학./ 과정2 심화학습./ 과정3 그룹토의 / 과정4 열린 학습

평가 방법.(1.필기시험 2.구술시험)

필기 (Paper) 시험은 분석하기(Commentary)와, 글쓰기(Essay)가 있습니다.

필기시험 1(Commentary)은, 처음 보는 시나 수필을 분석합니다. 이 평가 방법은 학생이 그동안 배운것을 새로운 것에 얼마나 응용할 수 있는지를 알 수 있습니다.

필기시험 2(Essay)는, 배운 내용을 글쓰기(Essay)를 통하여 평가 합니다.

구술(Oral)시험은 텍스트를 토대로 분석하기(Commentary)와, 자신이 선택한 문학작품에 대해 발표(Presentation)하기로 나누어 집니다.

필수요소.

한국어가 모국어인 학생이어야 하며, 한국어 능력이 고르게 숙달되어 있으며 능숙하게 사용할 줄 아는 학생이어야 합니다. 하이레벨 학생은 2년 간 240시간을, 스펀다드레벨 학생은 150시간을 반드시 이수해야 합니다.

한국어 수업 (Korean A1)이 필요한 경우.

수준 높은 과제와 수업방식으로 대학생활을 준비하는 데 도움을 얻기 원하는 학생과, 문학을 통해 깊이 있는 이해와 대학에서 요구되는 작문 실력을 갖추기 원하는 학생에게 반드시 필요한 수업입니다.

한국어 수업(Korean A1)이 필요치 않은 경우.

한국어가 모국어인 학생

Reference:

International Baccalaureate Organization, Diploma Programme Language A1 April 1999. Geneva, Switzerland: International Baccalaureate Organization, 1999.

(IBO Disclaimer: This is not an official IBO Translation.)

Group 1: Русский язык A1 продвинутый & стандартный уровень

Русский язык А 1 – это курс углубленного изучения литературы. Он предполагает знакомство с историей русской литературы, а также развитие необходимых навыков для осуществления устной и письменной коммуникации. Предлагаемый курс не ограничивается изучением русской культуры и литературы. Обращение к зарубежным авторам позволяет сформировать глобальный взгляд на общечеловеческие проблемы.

Цели курса:

- Сформировать личностный подход к литературе и развить навыки литературного анализа
- Научить студентов правильно выражать свои мысли в устной и письменной форме
- Познакомить студентов с разнообразными литературными произведениями, относящимися к различным периодам, жанрам и стилям
- Расширить кругозор студентов за счёт изучения литературных произведений других культур
- Показать студентам различные подходы к изучению литературы
- Воспитать у студентов интерес к литературе, который должен сохраниться на всю жизнь

Различия между продвинутым и стандартным уровнем

Продвинутый уровень

- Общее число изучаемых произведений: 15 (5 произведения мировой литературы)
- Два письменных задания по мировой литературе, которые оцениваются вне школы. Каждое задание должно содержать 1000-1500 слов

Стандартный уровень:

- Общее число изучаемых произведений: 11 (5 произведения мировой литературы)
- Одно письменное задание по мировой литературе, которое оценивается вне школы. Задание должно содержать 1000-1500 слов

Содержание курса

	Продвинутый уровень	Стандартный уровень
Часть 1 Мировая литература:	3 произведения	3 произведения
Часть 2 Детальное изучение:	4 произведения	2 произведения
Часть 3 Группа произведений:	4 произведения	3 произведения
Часть 4 Школьный выбор:	4 произведения	3 произведения

Система оценки

I. ВНЕШНЯЯ ПРОВЕРКА (70%)

Письменный компонент	50%
Комментарий	25%
Эссе	25%
Задание по мировой литературе	20%

(Продвинутый Уровень-2, Стандартный -1)

II. Внутренняя проверка (30%)

Устный компонент	
Индивидуальный устный комментарий	15%
Индивидуальная устная презентация	15%

На кого рассчитан данный курс

Курс литературы предполагает, что студент хорошо владеет русским языком и находится в языковой среде достаточно длительное время.

Кому следует выбирать этот курс?

Русский язык А1, продвинутый уровень предназначен для студентов, с профессиональной ориентацией на изучение литературы в институте или университете.

Русский язык А1, стандартный уровень предназначен для студентов, которые не предполагают изучать литературу в институте или университете.

Кому не следует выбирать данный курс?

Студентам, для которых изучение литературы на другом языке более предпочтительно.

Reference:

International Baccalaureate Organization, Diploma Programme Language A1 April 1999. Geneva, Switzerland: International Baccalaureate Organization, 1999.
(IBO Disclaimer: This is not an official IBO Translation.)

Group 2: ENGLISH A2

Higher and Standard Level

English A2 is a course provided to enable students who are not native English speakers, and who are not fully fluent in English, to develop and refine their language skills. Students should initially have a high level of competence, and at the end of the course are expected to understand and use English accurately. Students who study English A2 in conjunction with a different A1 language receive a bilingual diploma.

Differences between higher and standard level

Higher level students study four options in the course of 2 years, rather than 3; they are assessed using different criteria requiring higher levels of achievement; and they sit different external exam papers which are longer than standard level, and have less guidance contained in them.

Course content

Students study either 3 (standard level) or 4 (higher level) options over the two years, drawn from a variety of literary and cultural options. In both cases, at least one literary and one cultural option must be studied. Literary options consist of the study of three works, all originally written in English, and must include at least two genres over the course as a whole (eg novel, short stories, poems, play etc). Cultural options include Language and culture, Media and culture, Future issues, Global issues, and Social issues. In the course of study a wide range of different text types are used.

Assessment details

Assessment consists of a variety of internally and externally assessed work as follows:

	<i>Higher level</i>	<i>Standard level</i>
<i>External</i>		
Paper 1: Comparative Commentary	2 hours; 25%	1 ½ hours; 25%
Paper 2: Essay	2 hours; 25%	1 ½ hours; 25%
Written Tasks*	20%	20%
<i>Internal</i>		
Individual oral	15%	15%
Interactive oral	15%	15%

* Two Written tasks are submitted, one based on a literary option and one on a cultural option, with a combined word limit of 1500

Prerequisites and special requirements

None – obviously students must have initial proficiency in English, but that is an overall requirement for enrolment in the IB programme in this school

Who should choose this course?

- Students who are not native English speakers and who are not fully fluent in English
- Students who are studying another language at A1 level who would benefit from the lighter reading and writing workload that A2 entails compared to English A1
- A2 at higher level is also suitable for a student who intends to study English at this level for a future career

Who should not choose this course?

Students for whom English is their first language and who would not be sufficiently challenged by the demands of this course taking into account their other course load.

Reference:

International Baccalaureate Organization, Diploma Programme Language A2 February 2002. Geneva, Switzerland: International Baccalaureate Organization, 2002.

Group 2: LANGUAGE *ab initio* *Beginning French or Russian*

Standard Level only

The main focus of the Language *ab initio* course is on the acquisition of language required for purposes and situations usual in everyday social interaction (communication through the use of language). This course purposes to develop a variety of linguistic skills, and a basic awareness of the culture using the language. The Language *ab initio* courses encourage students to practice the four language skills of listening, speaking, reading and writing. Language learning takes place in variety of ways and through a range of different media.

IB Language *ab initio* course aims are for students to learn to:

- understand and use the Russian in range of contexts and in variety of purposes;
- use Russian to communicate with other people;
- develop skills in listening, speaking, writing and reading;
- use Russian appropriately;
- use Russian to interact with and appreciate another culture

Course content

The language *ab initio* courses are divided into seven topics which are: the individual, education and work, town and services, food and drink, the environment, health and emergencies. These seven topics are studied through:

1. Language
 - four primary language skills (listening, speaking, reading, writing)
 - grammatical structures
 - vocabulary
2. Texts (as many types as possible)
3. Cultural awareness – exploring aspects of the culture related to the language studies

Assessment details

External Assessment: Written Component (70%)

Examination Paper 1: Text Handling	40%
Examination Paper 2: Written Production	30%

Internal Assessment: Oral Component (30%)

Individual Oral	15%
Interactive Oral Activity	15%

These recordings are internally assessed by the teacher and moderated by the IBO.

Prerequisites and special requirements

Given the intense nature of Language *ab initio* courses, students will need to demonstrate good language learning skills or limited exposure to the language previous to taking the class.

Who should choose this course?

Students with zero to one year of experience in the target language. While previous exposure to the language may be helpful, it is not mandatory. This is a particularly useful class for learning language survival skills for travel or getting around Tashkent.

Who should not choose this course?

Students who have had 2 or more years experience in the target language are not allowed to take these courses. These courses are also not an easy option for students who have found other languages difficult.

Reference:

International Baccalaureate Organization, Diploma Programme Language *ab initio*. Geneva, Switzerland: International Baccalaureate Organization, 2002.

Group 2: LANGUAGE B *Intermediate French or Russian*

Higher and Standard Level

Language B courses are language learning courses for students with some previous experience of learning the target language. The main focus of these courses is on language acquisition and the development of skills considerably beyond those expected of an *ab initio* candidate, up to a fairly sophisticated degree at higher level. Language B courses give students the opportunity to reach a high degree of competence in a language and explore the culture(s) using the language. The range of purposes and situations for which and in which the language is used extends well beyond those at *ab initio*, to the domains of work, social relationships, and the discussion of abstract ideas, for example. The types of language needed for these purposes and situations are more refined.

Differences between higher and standard level

Although the nature of the language B course is the same for both higher level and standard level, the two levels differ in the number of types of texts that students are expected to write and, more generally, in the depth and breadth of the language used. These differences are reflected in the objectives and the assessment criteria.

Course content

At both higher level and standard level, a successful language B student should not only learn and assimilate basic language structures but should also be able to use the language in a range of situations and purposes for which and in which the language is used. These situations extend to the domains of work, social relationships and, at higher level, may include the discussion of abstract ideas. The range of texts and material that is used and the specific audiences who are addressed determine the type of language needed for these different situations and purposes. In short, the language B student learns the “rules of the game”—how to communicate effectively in a number of situations and within the culture(s) where the language is spoken.

Assessment details

External Assessment: Written Component (70%)

Examination Paper 1: Text Handling	40%
Examination Paper 2: Written Production	30%

Internal Assessment: Oral Component (30%)

Individual Oral	15%
Interactive Oral Activity	15%

These recordings are internally assessed by the teacher and moderated by the IBO.

Prerequisites and special requirements

Given the intense nature of Language B courses, students will need to demonstrate good language learning skills and normally 2 to 5 years of previous study in Russian. Students should also interact regularly with Russian speaking people to build their language skills.

Who should choose this course?

Russian B is for students who have 2 to 5 years of experience in Russian. The higher level course is particularly useful for students intending to study Russian for a future career or for university study. Russian B SL may also be appropriate for students who have had exposure to Russian, and are quick with languages and interacting with Russian speaking people in Tashkent.

Who should not choose this course?

Students who are new to Russian and have had no previous experience with Russian language should not take this class. This is also not a class for students who are fluent in Russian and have studied previously in Russian Speaking schools.

Reference, the course details above includes excerpts taken with permission from:

International Baccalaureate Organization, Diploma Programme Language B February 2002. Geneva, Switzerland: International Baccalaureate Organization, 2002.

Group 3: ECONOMICS

Higher and Standard Level

How many times in the course of your daily routine have you felt the need for more time to spend with friends (and occasionally also the need for more time to study!), the need for more money to buy music or a meal at a fancy restaurant? If your allowance was doubled would the money be enough? Three times of your present allowance? Four times? Suppose there were 48 hours in a day, would that really give you enough time to spend with friends and do all the things that you want to do? The answer to these questions, if you think hard, is likely to be NO. Well, this *scarcity* of resources (time and money, in this case) is what economics is all about. Since you don't have money to buy all the things that you want you need to prioritize and choose those that give you the most satisfaction. Economics is all about enabling you (and other people in society) make these *choices*. It gives us the tools and techniques that we need to make, as economists say, *rational choices*. Welcome then, to the world of scarcity and choice and the need to *economise* on the use of resources.

Differences between higher and standard level

All units consist of HL and SL topics. In most cases, HL units are an extension of common themes.

Course content

As a discipline, economics is a social science and we will draw on many of the ideas and concepts that you would have learnt in history, for instance. Economists also use a lot of mathematical logic in formulating and using economic theories, particularly graphing techniques. As all economic ideas also need to be expressed in words using intuitive logic and real world examples, your ability to communicate effectively in English is also important while studying economics.

There are 5 broad themes in the economics curriculum:

1. Introduction to economic concepts and theory
2. Microeconomics
3. Macroeconomics
4. International economics
5. Development economics

Development economics is a common thread running through all the above units.

Assessment details

The final assessment will comprise of both external and internal components as per the following:

Exam Paper	Format	Time (hours)		Weighting (%)	
		SL	HL	SL	HL
1	Two part essays	1	1	25	20
2	SL - Data response; HL - Short essays	2	1	50	20
3	HL only - Data response	--	2	--	40
Internal Assessment (4 commentaries) externally moderated by the IBO				25	20

Prerequisites and special requirements

If your grade in Humanities is less than a 4, it will not be feasible for you to choose IB economics.

Who should choose this course?

IB economics is an academically rigorous program which demands a range of skills from simple mathematics to essay writing. It requires regular work and commitment. Once you do that it can also be very rewarding.

Who should not choose this course?

Economics is not an easy option. Please don't join if you will not commit yourself to regular work. Simple mathematical skills and the ability to communicate in English are also quite necessary.

Reference:

International Baccalaureate Organization, Diploma Programme Economics February 2003 Updated February 2007. Geneva, Switzerland: International Baccalaureate Organization, 2003.

Group 3: HISTORY

European Option

Higher and Standard Level

The aim of the IB History Course is to cover approximately 100 years of content and teach the skills necessary for not only a Historian but for an enlightened international citizen. This includes not only analysis of primary and secondary sources for bias but also the art of the analytical essay. Writing is thought made visible and making one's thoughts known in a clear manner is a large part of IB History.

Differences between higher and standard level

There are few differences between the Higher and Standard level courses but those few are fairly important. At TIS we teach the same content to both groups although it is possible that the SL students will occasionally be released to work on their other HL courses. However the HL students have a third exam paper that requires the student to write 3 essays in quick succession over a 2 ½ hour time block.

Course content

Alexander II and the Emancipation of the Serfs, Russian Foreign Policy in the 19th C, Unification of Germany and Bismarck, Causes of WWI, The Russian Revolution and Civil War, Treaty of Versailles, League of Nations, Weimar Germany, Rise of the Dictators: Stalin and Hitler, Causes of WW II, Beginnings of the Cold War, The Korean Civil War and then either Mao and the Communist Revolution or Castro in Cuba.

Assessment details

Assessment will be principally through practice Exam papers and Essays but there will also be Power Point Presentations, Short Quizzes, Posters, mini-projects and lots of classroom discussion about various readings.

	SL % of grade	HL % of grade
Exam Paper 1: Questions on 5 different sources. (1 hour)	30	20
Exam Paper 2: Two essay questions. (1 ½ hours)	45	25
Exam Paper 3: Three essay questions. (2 ½ hours)	----	35
Internal Assessment	25	20

Internal Assessment is a piece of original research between 1,500-2,000 words in length.

Prerequisites and special requirements

IB History is a reading and writing intensive course. Brilliance in English is however not necessary; the IB does not grade the English but the argument.

Who should choose this course?

Why study History? The study of History requires solid analytical skills and the ability to present information in a competent manner. If you are planning to study International Relations, Development, Political Science, Journalism, Government or Law, IB History would be useful.

Who should not choose this course?

History is not a course for the Laissez-faire. If you are reluctant to read and take notes outside of class, this is probably not the class for you. If however you love the study of bizarre personalities and the cut and thrust of dialectic you should think about taking History.

"History is strewn thick with evidence that a truth is not hard to kill, but a lie, well told, is immortal."

Mark Twain (1835-1910)

"Historians are prophets with their face turned backward."

Johann Friedrich Von Schiller (1759-1805) German dramatist, poet and historian

Reference for IB History Details:

International Baccalaureate Organization, Diploma Programme History Guide. Cardiff, United Kingdom: International Baccalaureate Organization, 2008.

Group 3: ITGS

Higher and Standard Level

The IB Diploma Programme Information Technology in a Global Society (ITGS) course is the study and evaluation of the impact of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the use of digitised information at the local and global level. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT within social contexts. ITGS is not a programming or computer science course. Students are exposed to the different software like excel, databases etc, but the focus is on how data is shared and the potential ethical problems associated.

Differences between higher and standard level

There are two levels at which ITGS can be studied; SL or HL. There are minimal differences within the content; it is more that students are exposed to the topics to a deeper level. The main differences are in the assessments. Below is a summary of the assessment that students do

Course content

Although ITGS shares methods of critical investigation and analysis with other social sciences, it also considers ethical questions found in the study of philosophy. Students come into contact with IT on a daily basis because it is so pervasive in the world in which we live. This widespread use of IT inevitably raises important questions about social and ethical issues that shape our society today. ITGS offers an opportunity for a systematic study of these issues, whose range is such that they fall outside the scope of any other single discipline. *(Source: IB Diploma ITGS Course Guide)*

Topics discussed come from the following areas.

- Business and Employment
- Politics and Government
- Education
- Arts, Entertainment & Leisure
- Health
- Science and Environment

Assessment details

Standard Level

Internal Assessment (30%)

- An IT solution to a problem in a social context
- Is made up of a project, log book, and report.

External Exams (70%)

- Paper 1 – 1 hour – 25%
- Paper 2 – 2 hours – 45%

Higher Level

Internal Assessment (20%)

- 3 Portfolios pieces based on a social and ethical issue arising from an article.
- An Extension of one of the previous 3 portfolios where an interview is conducted.

External Exams (80%)

- Paper 1 – 1 hour – 20%
- Paper 2 – 2 hours – 35%
- Paper 3 – 1 hour – 25%

Prerequisites and special requirements

Nothing specific. As mentioned earlier, the focus is on ethics and how we share data and information. What students will need to be able to do and willing to do is discuss topics. There are debates, speeches, presentations and general talking. Students will also need to have an open mind as the issues that are discussed are wide and varied and discussions can go in any direction.

Who should not choose this course?

Some universities and countries do not accept ITGS for admission or as one of the three required IB Higher Level Courses. This course is also not for those looking to learn more about programming. Hardware and software is talked about but it is more in the context of its use.

Reference:

International Baccalaureate Organization, Information Technology in a Global Society Guide. Cardiff, United Kingdom: International Baccalaureate Organization, 2006.

Group 4: BIOLOGY

Higher and Standard Level

Biology is the scientific study of the interactions that take place within and between living organisms and their chemical and physical environments. IB Biology in comparison to other IB science courses requires a large amount of facts to be learned. The emphasis however, is for students to acquire the relevant knowledge to gain a broad understanding of the key principals of biological systems. The major themes emphasized throughout IB Biology include, the relationships between *Structure and Function*, *Universality versus Diversity*, *Equilibrium within Systems* and *Evolution*. All IB science courses have a strong emphasis on experimentation and the scientific method as a way of gaining knowledge and understanding.

Differences between Higher and Standard Level

The main differences between Higher Level (HL) and Standard Level (SL) Biology have to do with the time spent in study and the depth to which material must be learned.

Course Content

Core Topics for SL and HL	Hours	Additional Topics for HL (AHL)	Hours
1: Statistical Analysis	2	7: Nucleic Acids and Proteins	11
2: Cells	12	8: Cell Respiration & Photosynthesis	10
3: The Chemistry of Life	15	9: Plant Science	11
4: Genetics	15	10: Genetics	6
5: Ecology and Evolution	16	11: Human Health and Physiology	17
6: Human Health and Physiology	20		
Extended Study (Options):		Extended Study (Options):	
D: Evolution	15	D: Evolution	22
G: Ecology and Conservation	15	G: Ecology and Conservation	22
Practical Work	40	Practical Work	60
Minimum Teaching Hours	150	Minimum Teaching Hours	240

Assessment Details

Exam Paper	Format	Time (hours)		Weighting (%)	
		SL	HL	SL	HL
1	Multiple choice	$\frac{3}{4}$	1	20	20
2	Data analysis, short answer and essay	$1\frac{1}{4}$	$2\frac{1}{4}$	32	36
3	Analysis and short answer from options	1	$1\frac{1}{4}$	24	20
Internal Assessment (Lab Reports) externally moderated by the IBO				24	24

Prerequisites and Special Requirements

A good background in 9th-10th grade biology, chemistry and physics is recommended for IB Biology. HL Candidates should have earned a TIS grade of 5 or better in their previous biology course. A multiple day ecology trip working outdoors in sun and/or rain is a TIS requirement for this course.

Who should choose this course?

HL Biology is recommended for students who wish to study biological sciences in university including medicine, nursing, pharmacy, biotechnology, genetic engineering, agriculture, forestry, conservation and environmental protection. SL Biology is recommended for students who may not plan to specialize in sciences in university but enjoy the challenges of learning about the living world and they way we need to interact with it responsibly in our daily lives and business.

Who should not choose this course?

IB Biology should not be considered an easy science option. It involves a lot of writing, reading, complicated vocabulary, biochemistry, abstract concepts and statistical analysis.

Reference:

International Baccalaureate Organization, Diploma Programme Biology Guide. Cardiff, United Kingdom: International Baccalaureate Organization, 2007.

Group 4: CHEMISTRY

Higher and Standard Level

In IB Chemistry, the theoretical study of chemistry is combined with the acquisition of practical, investigational, and communication technology skills. Moral, ethical, social, economic and environmental implications of using science and technology are also considered.

Differences between Higher and Standard Level

The skills and activities are common to students at both SL and HL, however students at HL are required to study some topics in greater depth. (See below.) SL students participate in 40 hours of practical work; 60 hours of practical work is required for HL students.

Course Content

Students study the topics shown below. Two Optional Topics are also chosen from Biochemistry, Medicines and Drugs, Food Chemistry, and Environmental Chemistry, according to class interest.

SL and HL students study:

Topic 1: Quantitative chemistry

Topic 2: Atomic structure

Topic 3: Periodicity

Topic 4: Bonding

Topic 5: Energetics

Topic 6: Kinetics

Topic 7: Equilibrium

Topic 8: Acids and bases

Topic 9: Oxidation and reduction

Topic 10: Organic chemistry

Topic 11: Measurement and data processing

HL students study:

Topic 12: Atomic structure

Topic 13: Periodicity

Topic 14: Bonding

Topic 15: Energetics

Topic 16: Kinetics

Topic 17: Equilibrium

Topic 18: Acids and bases

Topic 19: Oxidation and reduction

Topic 20: Organic chemistry

Assessment Details

Paper 1: multiple-choice questions.

Paper 2: short-answer and extended-response questions that may involve explanations, calculations, analysis or evaluation.

Paper 3: short-answer questions in each of the two options studied.

Internal Assessment (IA): a mixture of short- and long-term investigations plus an interdisciplinary project. SL and HL students are marked against the same assessment criteria.

Prerequisites and Special Requirements

The completion of two semester-long courses in introductory chemistry (or the equivalent) is recommended. Concurrent enrollment in HL Mathematics or Mathematics Standard Level is recommended for HL students.

Who should choose this course?

IB Chemistry is recommended for students who plan to study science-related subjects such as medicine, biological science or environmental science at university. Those who wish to pursue a career in engineering are also recommended to study IB Chemistry. Students who have enjoyed studying introductory chemistry or those who wish to have a better understanding of the physical world may also want to choose IB Chemistry as their Group 4 science.

Reference:

International Baccalaureate Organization, Diploma Programme Chemistry Guide. Cardiff, United Kingdom: International Baccalaureate Organization, 2007.

Group 4: PHYSICS

Higher and Standard Level

The Diploma Programme 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, and information and communication technology skills, which are essential in modern scientific endeavour and are important life-enhancing, transferable skills in their own right (IBO Physics Guide).

Differences between Higher and Standard Level

Students at HL are required to study some topics in greater depth, to study additional topics and to study extension material of a more demanding nature in the common options. The distinction between SL and HL is one of breadth and depth.

Course Content

8 Core topics mandatory for SL and HL; Physics and physical measurement, Mechanics, Thermal physics, Oscillations and waves, Electric currents, Fields and forces, Atomic and nuclear physics, Energy, power and climate change

Additional HL only topics; Motion in fields, Thermal physics, Wave phenomena, Electromagnetic induction, Quantum physics and nuclear physics, Digital technology

2 Options; SL only - Sight and wave phenomena, Quantum physics and nuclear physics, Digital technology, Relativity and particle physics or available to HL and SL – Astrophysics, Communications, Electromagnetic waves and at HL only – Relativity, Medical Physics, and Particle Physics.

Assessment Details

Standard Level

Paper 1	20% of the grade	Multiple Choice Paper
Paper 2	32% of the grade	Extended response on core topics
Paper 3	24% of the grade	Extended response on the option topics
Internal Assessment	24% of the grade	Two assessments in each criterion

Higher Level

Paper 1	20% of the grade	Multiple Choice Paper
Paper 2	36% of the grade	Extended response on core topics
Paper 3	20% of the grade	Extended response on the option topics
Internal Assessment	24% of the grade	Two assessments in each criterion

Prerequisites and Special Requirements

A passing score in 10th grade physics (or similar level science course) will enable any student to study DP Physics at the Standard Level. Higher Level candidates should have a 5 or better in 10th grade physics.

Who should choose this course?

- You are curious about the physical world around you.
- You enjoy exploring the way things work.
- You like to take things apart, look inside and play with physical objects.
- You are interested in a career in Engineering, Physics, or another technical field.

Who should not choose this course?

Students who struggle with algebraic manipulations will struggle with the mathematical demands of this course.

Reference:

International Baccalaureate Organization, Diploma Programme Physics Guide. Cardiff, United Kingdom: International Baccalaureate Organization, 2007.

Group 5: MATHEMATICAL STUDIES

Standard Level

This course is available at SL only. It caters for students with varied backgrounds and abilities. More specifically, it is designed to build confidence and encourage an appreciation of mathematics in students who do not anticipate a need for mathematics in their future studies. Students taking this course need to be already equipped with fundamental skills and a rudimentary knowledge of basic processes (IBO Mathematical Studies SL Guide).

Differences between Higher and Standard Level

This course includes topics in Sets and Financial Math that are not included in the other two courses. The focus of this course is in the day to day application of basic skills in mathematics. Although all three courses have a range of topics, Mathematical Studies introduces the key concepts of the topics through applications and simple techniques. The development of topics starts from first principles and builds on student's own logical thinking skills.

Course Content

8 Core topics; Algebra, Functions, Trigonometry, Vectors, Statistics, Probability, Calculus, Sets & Financial Math

Assessment Details

Internal Assessment: (20% of the final grade)

Students must complete the Project, an individual mathematics investigation in a topic of student's choice. The project is an individual piece of work involving the collection of information or the generation of measurements, and the analysis and evaluation of the information or measurements.

The project provides an opportunity for students to carry out a mathematical investigation in the context of another course being studied, a hobby or interest of their choice using skills learned before and during the course. This process allows students to ask their own questions about mathematics and to take responsibility for a part of their own course of studies in mathematics.

External Assessment: (80% of the final grade split equally over two papers)

Paper 1	1 hour 30 minutes	Short response questions
Paper 2	1 hour 30 minutes	Extended response questions

Prerequisites and Special Requirements

All students may select this course.

Who should choose this course?

- You would like to focus on other subjects more than math.
- Your grades in math are not always very good.
- You are interested in studying subjects in the humanities and the arts at university.

Who should not choose this course?

This course is occasionally not accepted for entrance into some university programs that require a strong mathematics background such as engineering, advanced economics, chemistry or physics and this also depends on the country. Students and parents should research university requirements for particular majors.

Reference:

International Baccalaureate Organization, Diploma Programme Mathematical Studies SL. Cardiff, United Kingdom: International Baccalaureate Organization, 2004.

Group 5: MATHEMATICS

Standard Level

This course caters for students who already possess knowledge of basic mathematical concepts, and who are equipped with the skills needed to apply simple mathematical techniques correctly. The majority of these students will expect to need a sound mathematical background as they prepare for future studies in subjects such as chemistry, economics, psychology and business administration (IBO Mathematics SL Guide).

Differences between Higher and Standard Level

This course covers the same core topics as higher level but includes a smaller range of techniques and fewer proofs. There is no option for the SL course.

Course Content

The course focuses on introducing important mathematical concepts through the development of mathematical techniques. The intention is to introduce students to these concepts in a comprehensible and coherent way, rather than insisting on mathematical rigor. Students should wherever possible apply the mathematical knowledge they have acquired to solve realistic problems set in an appropriate context.

7 Core topics; Algebra, Functions, Trigonometry, Vectors, Statistics, Probability, Calculus

Assessment Details

Internal Assessment (20%):

Portfolio of 2 assignments (investigation & modeling)

The portfolio offers students a framework for developing independence in their mathematical learning by engaging in mathematical investigation and mathematical modeling. Students are provided with opportunities to take a considered approach to these activities and to explore different ways of approaching a problem. The portfolio also allows students to work without the time constraints of a written examination and to develop the skills they need for communicating mathematical ideas (IBO Mathematics SL Guide).

External Assessment:

Paper 1: (40%) 2 hours, calculator not allowed
Paper 2 (40%) 2 hours, calculator required

Prerequisites and Special Requirements

A grade of 5 or better in 10th grade math.

Who should choose this course?

- You are a good math student and can apply simple mathematical techniques correctly.
- You feel successful when doing math.
- You are interested in studying science, engineering, economics or business in university.
- You plan on taking physics or chemistry in DP.

Who should not choose this course?

Students seeking admission in highly competitive universities in technical fields may want to consider Mathematics HL if they qualify.

Reference:

International Baccalaureate Organization, [Diploma Programme Mathematics SL](#). Cardiff, United Kingdom: International Baccalaureate Organization, 2006.

Group 5: MATHEMATICS

Higher Level

This course caters for students with a good background in mathematics who are competent in a range of analytical and technical skills. The majority of these students will be expecting to include mathematics as a major component of their university studies, either as a subject in its own right or within courses such as physics, engineering and technology. Others may take this subject because they have a strong interest in mathematics and enjoy meeting its challenges and engaging with its problems (IBO Mathematics HL Guide).

Differences between Higher and Standard Level

The abstract areas of justification and proof are key aspects of this course. This course should only be taken by students who truly enjoy abstract mathematical challenges and thought.

Course Content

Math HL focuses on developing important mathematical concepts in a comprehensible, coherent and rigorous way, using a carefully balanced approach. Students are encouraged to apply their mathematical knowledge to solving problems set in a variety of meaningful contexts. Development of each topic includes justification and proof of results. Students embarking on this course should expect to develop insight into mathematical form and structure, and should be intellectually equipped to appreciate the links between concepts in different topic areas. They should also be encouraged to develop the skills needed to continue their mathematical growth in other learning environments (IBO Mathematics HL Guide).

7 Core topics; Algebra, Functions, Trigonometry, Vectors, Statistics, Probability, Calculus
One option; Statistics & Probability, Sets-Relations-Groups, Series & Differential Equations, Discrete mathematics

Assessment Details

Internal Assessment (20%):

Portfolio of 2 assignments (investigation & modeling)

External Assessment:

Paper 1: (30%)	2 hours, calculator not allowed
Paper 2 (30%)	2 hours, calculator required
Paper 3 (20%)	1 hour, calculator required

Prerequisites and Special Requirements

- A grade of 6 or 7 in 10th grade math
- Diagnostic test to assess a range of appropriate math skills
- Teacher recommendation

Who should choose this course?

- You consistently score 6-7's in math
- You have a range of analytical and technical math skills.
- You enjoy thinking mathematically
- You would like to study mathematics or engineering at university
- You have a teacher recommendation

Who should not choose this course?

This course requires a high degree of fluency in mathematics. Students who struggle with algebraic manipulations and abstract thinking will struggle in this course.

Reference:

International Baccalaureate Organization, Diploma Programme Mathematics HL. Cardiff, United Kingdom: International Baccalaureate Organization, 2006.

Group 6: Music

Higher and Standard Level

The aims of IBO Music programme are to give students the opportunity to explore and enjoy the diversity of music throughout the world; encourage students to develop perceptual skills to recognize, speculate, analyze, identify, discriminate and hypothesize in relation to music; enable students to develop creatively their knowledge, abilities and understanding through performance and composition; assist students to develop their potential as musicians.

Differences between Higher and Standard Level

HL Music is designed for the specialist music student with a background in musical performance and composition, who may pursue music at university or conservatoire level. SL Music is more accommodating for students with a variety of interests and backgrounds as shown below.

Course Content

Higher Level Music (240 hours) has 3 compulsory parts:

- Musical Perception and Analysis
- Solo Performance: voice or instrument, one or more recitals
- Composition: three contrasting compositions

Standard Level Music (150 hours) has three options from which the student may choose:

1. Solo Performance Option. This is for students with a background in musical performance.
 - Musical Perception and Analysis
 - Solo Performance: voice or instrument, one or more recitals
2. Group Performance Option. This is for students with a general interest in music, or those without prior experience, particularly members of ensembles.
 - Musical Perception and Analysis
 - Group Performance: two or more public performances
3. Composition Option. This is for students with a background in composition.
 - Musical Perception and Analysis
 - Group Performance: two or more public performances

Assessment Details

External Assessment – Sent to IB examiners for assessment	
Musical Perception and Analysis <ul style="list-style-type: none">o Study of Prescribed Worko Study of Music Genres and styles Musical Investigation	Examination - Listening Paper
Internal Assessment – Depends on HL or which SL options have been chosen. Internal Assessment is recorded, internally marked and the recording externally moderated by the IB.	
1. Solo Performance 2. Group Performance 3. Composition	

Prerequisites and Special Requirements

Students choosing IB Music need strong music reading skills, at least two years of music performance experience (instrument or singing) and strong analytic skills

Who should choose this course?

IB Music is recommended to the students who may want to pursue music as their future career and also to those with the particular interest in music history, theory and practice.

Who should not choose this course?

Students without preliminary music skills and knowledge should not choose IB Music.

Reference:

International Baccalaureate Organization, Diploma Programme Music Guide February 2000. Geneva, Switzerland: International Baccalaureate Organization, 2000.