



Frankfurt International School

Course Guide

Grades 9–12

2025/2026

www.fis.edu

TABLE OF CONTENTS

Purpose of the Course Guide	3
Credit Requirements for Graduation	3
College/University Entrance Requirements	3
Academic Pathways Offered at FIS	4
Course Placement	5
German Abitur Equivalency Certification	5
FIS IB Diploma Programme (IBDP) Course Offerings in Grades 11/12	6
Recommended Courses By Grade Level	7
Sample Four Year Plan	7
Planning Page	8

Course Descriptions

Arts	9
English	12
Non-English Languages	15
Humanities	21
Mathematics	25
Science	29
Learning Support	34
Other Courses	35
Matrix of IB Prerequisites for Universities in most popular destinations	36/37

FIS Course Guide



Purpose of the Course Guide

One of the most important decisions students make is the selection of courses for their academic program. Students need to consider which courses will best meet their abilities, interests and future plans beyond high school. This booklet contains a wealth of information to support students in this process. Course descriptions are provided to familiarize students with the courses offered at FIS along with information to enable them to wisely plan an individualized program of study that incorporates specific requirements necessary for graduation.

Students should use this course guide to develop their academic plan before selecting and find out as much information as possible about each course – its objectives, requirements, prerequisites and path for progression. Students should also consider the following questions when choosing their courses and academic track:

1. What courses are required per grade level?
2. Are the courses I have chosen appropriate for my ability and interests?
3. Will the courses I have chosen meet the prerequisites for university admissions in a specific country?
4. Have I taken advantage of the breadth of course offerings to explore interests or future career paths?

Credit Requirements for Graduation

A full-time one year course equals one “credit.” Students in Grades 9 and 10 enroll in eight credits each year. Students in Grades 11 and 12 must enroll in at least six credits each year.

All students who graduate from FIS will earn an American High School Diploma.

Graduation requirements in Grades 9–12 are as follows:

• English	4 credits
• Mathematics	3 credits
• Non-English Language	2 credits
• Social Sciences	3 credits
• Experimental Sciences	3 credits
• Physical Education	1 credit
• Arts & Design	1 credit*
• Academic elective courses	7 credits
Minimum Total	24 credits

Creativity Activity Service (CAS) is required in Grades 11 and 12.

**Arts & Design requirement in effect starting with the Class of 2027.*

College/University Entrance Requirements

Colleges and universities consider a number of factors during the admissions process. The most important factor considered is the choice of courses and academic performance within these courses. Although each university establishes its own entrance requirements, the recommended number of courses completed by graduation, within subject areas, are as follows:

• English	4 credits
• Social Studies	4 credits
• Science	4 credits
• Mathematics	4 credits
• Non-English Language	3 credits of the same language

Particularly for Grades 11–12, it is important that students and parents carefully review university entrance requirements prior to selecting their courses at FIS. The counselors will be able to assist in providing current information about various university requirements, admissions procedures and other pertinent material to create a plan with appropriate subject options.

FIS Course Guide

4

Academic Pathways Offered at FIS

FIS High School Diploma

All Grade 9-12 students at FIS pursue a High School Diploma. Upon successful completion of the FIS graduation credit requirements, students will receive an FIS High School Diploma accredited by the United States' New England Association of Schools & Colleges (NEASC).

In addition to the High School Diploma, in Grades 11 and 12, students may opt to pursue and, if successfully completed, earn the IB Diploma or individual IB course certificates. Students who do not undertake the IB Diploma Programme are flexible to enroll in any combination of non-IB and IB courses, provided they meet the graduation requirements. Students in Grades 11 and 12 must enroll in a minimum of six courses per year.

The IB Diploma Programme (IBDP)

In Grades 11 and 12, students may pursue the International Baccalaureate Diploma Programme (IBDP), a rigorous two year program that is required by most European universities for admission and highly regarded by universities worldwide. Students must take six courses within specific subject areas in addition to the Theory of Knowledge course (a course which explores what the nature of knowledge is and how it is obtained). In addition, students complete a 4000-word Extended Essay on a topic of their choice.

Whether students ultimately achieve the IBDP is determined by successful completion of comprehensive exams taken in each of the six subjects at the end of Grade 12 in conjunction with relevant coursework completed throughout the two years. Each course is graded on a 1-7 scale (7 being the highest). A maximum of 45 points can be achieved and a minimum of 24 points are required to earn the IB Diploma.

How students perform in Grade 10 is a good indicator of whether they are suited for the IBDP. A solid foundation in subjects and strong study skills are required to successfully pursue the IBDP in Grades 11 and 12.

For more information, please see the full description on page 6 in this guide.

IB Coursework Candidates

Grade 11 and 12 students opting not to pursue the IBDP are enrolled in six courses per year. A student can opt to enroll in at least six IB courses, a combination of IB and non-IB, or no IB courses. Students who elect to study individual IB subjects will gain recognition as an individual IB coursework (or "certificate") candidate. Candidates are subject to both the full coursework and examinations in these subjects. IB coursework scores may be used for university credit or advanced placement in many universities.



Course Placement

Courses will be offered based on student interest and enrollment. If a course is canceled due to low enrollment, students and parents will be notified and an alternate course may be chosen.

Language

Students will be placed in a language class based on past experience, placement testing and/or prerequisites taken at FIS. The language faculty will consult with individual students regarding their language placement and students will require teacher permission for all levels.

Mathematics

Students will be placed in a mathematics class based on teacher recommendation. All students should consult with their current mathematics teacher or take a placement exam to determine the most appropriate course to take.

German Abitur Equivalency Certification

Read the following information carefully if intending to study in Germany as there are additional requirements for the German-approved IB Diploma Programme. Please note that all course selections will need to be approved by a counselor.

The following information can be used as a guide:

Abitur Recognition requires the following conditions:

- **Groups 1 & 2** (Two Languages)
Two Language A courses OR one Language A and one Language B at Higher Level (HL)
Language Ab Initio or Language B Standard Level (SL) **NOT** approved
- **Group 3** (Individuals & Societies): Business, Economics, Geography, Global Politics, History or Psychology
- **Group 4** (Science): Biology, Chemistry or Physics
- **Group 5** (Math): All math courses are recognized.
- **Group 6:** Music, Theatre, Visual Arts; or a third language; or another approved course from Group 3–4 including: Computer Science, Design Technology, Environmental Systems & Societies, Sports Exercise & Health Science

- All courses must be taken over two consecutive years and all exams taken in Grade 12
- A minimum of a Language (Group 1 or 2), Science (Group 4) or Math need to be taken at HL
- No online courses allowed
- A minimum of a grade '4' must be earned across each of the six IB subjects in the final IB Diploma.

For the official KMK IB recognition (in German) please click [here](#).

FIS Course Guide

6

FIS IB Diploma Programme (IBDP) Course Offerings in Grades 11/12

The IBDP curriculum consists of six subject groups. Every IBDP candidate must enroll in one course from each of Groups 1–5 and a sixth course from either Group 6 or any other course from Groups 1–4. A seventh course is the Theory of Knowledge class. The following FIS offerings can be used as a reference by potential IB Diploma candidates. All students should consult teachers, the counselor and the IB Coordinator, as needed, as they make final choices.

Course choices, and even decisions regarding the enrollment level of a course (Higher or Standard level), may determine where and what subject areas students will be able to pursue university studies. Please consult the Appendix and your counselor for guidance.



FIS Course Guide



Recommended Courses By Grade Level (Consult Graduation Requirements on p.3)

Grade 9	Grade 10	Grade 11	Grade 12
English / ELA	English / ELA	English	English
German	German	Language	Language
Humanities	Humanities	Humanities	Humanities
Science	Science	Science	Science
Mathematics	Mathematics	Mathematics	Mathematics
PE	PE & Balance	Elective	Elective
Arts & Design	Elective		
1.5 Elective	Elective		

Sample Four Year Plan

Grade 9	Grade 10	Grade 11	Grade 12
English L/L	English L/L	IB English A HL yr 1	IB English A HL yr 2
German L/L	German L/L	IB German A SL yr 1	IB German A SL yr 2
Geography/ History	World History	IB Economics HL yr 1	IB Economics HL yr 2
Physics	Pre-IB Biology	IB Biology HL yr 1	IB Biology HL yr 2
Math Foundation 9	Math Standard Applications	IB Math Applications SL yr 1	IB Math Applications SL yr 2
PE/Drama	PE & Balance	IB Visual Arts SL yr 1	IB Visual Arts SL yr 2
Art/DT	Graphics Programming	TOK	TOK
French 2/3	Performance Theater		

FIS Course Guide

8

Planning Page

The charts on the right are designed as a tool to aid you in developing your 4-year academic plan. Please reference the sample 4-year plan, the course descriptions and the grade level requirements to complete the chart. This chart will evolve as you progress through high school..

Grade 9 and 10

Subject	Grade 9	Grade 10
English		
German		
Humanities		
Science		
Mathematics		
PE / Balance		
Arts & Design/ Elective		
Elective		

Grade 11 and 12

Subject	Grade 11	Grade 12
English		
Other Language		
Humanities		
Science		
Mathematics		
Arts/ Elective		
Theory of Knowledge (required if pursuing IBDP)		

FIS Course Guide



Arts

Dance 9 is a year-long course which meets three times per eight-day cycle. This course aims to have students discover dance as a medium of expression and method of exploring ideas. Students will learn to compose solo and duo movement sequences and performance and ensemble dance, and will demonstrate knowledge of a genre of dance. Students will learn about posture, alignment and choreography and perform for audiences both informally and formally.

Credits: 0.5/ year

Prerequisites: None

Grades: 9

Dance 10–12 is a one year elective course in which students discover dance as a medium of expression and method of exploring ideas. The class will study choreography in more detail, making their own solo and trio dances. Guest choreographers work with the group as they learn, rehearse and perform a variety of genres of dance from different cultures. Dancers continue to hone their basic dance techniques and alignment through regular warm-ups and technique classes. Students have many opportunities to perform for audiences both informally and formally.

Credits: 1.0 / year

Prerequisites: None

Grades: 10–12

IB Dance SL/HL is a two year course which aims for a holistic approach to dance, and embraces a variety of dance traditions and dance cultures - past, present and looking towards the future. Performance, creative and analytical skills are mutually developed and valued whether the students are writing papers or creating/performing dances. The curriculum provides

students with a liberal arts orientation to dance. This orientation facilitates the development of students who may become choreographers, dance scholars or performers, or those, more broadly, who seek life enrichment through dance. The dance course has three main areas of study: two dance works created by the student, a formal written report, and one or two dance works performed by the student.

Credits: 1.0 / year

Prerequisites: Prior dance experience preferred

Grades: 11–12

Band 9 is a year-long course which meets three times per eight-day cycle. In this course, students will further their abilities on a woodwind, brass, or percussion instrument. They will work both individually and in group settings to gain performance skills on their individual instruments and as a band. Students will also gain a greater understanding of musical concepts related to the music they are performing. Students are expected to participate in the band performance each semester and are encouraged to audition for Honor Band Festivals and/or Jazz Band which have rehearsals at various times throughout the year. The final assessment for this course will be based primarily on the student's most consistent performance level during each semester. They will demonstrate their performance level through both in-class and recorded playing assessments.

Credits: 0.5/ year

Prerequisites: Ability to play a woodwind, brass, or percussion instrument.

Grades: 9

Choir 9 is a year-long course which meets three times per eight-day cycle. This class will be a combination of large group singing, small group ensembles and optional solo

performances. This course aims to help students to expand on their knowledge of basic music theory, music history and vocal styles, sight-singing and proper vocal techniques. Students will be exposed to a wide range of songs in many different styles including Classical, Pop, Broadway, Folk and Jazz. Students are expected to participate in the choir performance that happens at the end of each semester.

Credits: 0.5/ year

Prerequisites: None

Grades: 9

Music 9 is a year-long course which meets three times per eight-day cycle. This course is designed to consolidate the students' previous knowledge of music in areas of music literacy, theory, appreciation, performance, and composition. Topics include music theory, 4-Chord songs, jazz and blues. The students will have opportunities to listen to, perform, create, and reflect upon a variety of musical styles. The final assessment will be based primarily on classroom activities and presentations.

Credits: 0.5/ year

Prerequisites: None

Grades: 9

Concert Choir 9-12 is a year-long course which meets three times per eight-day cycle during lunch. This mixed soprano, alto, tenor and bass choir works on 4- to 7-part music in various styles from classical to favorite pop songs. The choir gives two concert performances a year and sometimes an additional performance at a special event. This is a Pass/Fail course and all students are welcome to join.

Credits: 0.5/ year

Prerequisites: None

Grades: 9–12

FIS Course Guide

10

Concert Band 9-12 is a year-long course which meets during lunch. This is a mixed band working on various pieces of music towards performances throughout the year. This is a Pass/Fail course and all students are welcome to join.

Credits: 0.5/ year

Prerequisites: None

Grades: 9-12

Chamber Orchestra 9-12 is a year-long course where all players of violin, viola, cello and double bass are welcome to take part, regardless of their previous experience. Rehearsals take place once a week after school. In the fall, students generally begin preparing a program of classical and baroque works for the December concert, while the spring is often devoted to lighter selections, with the addition of solos and chamber music. In our rehearsals, we hope to learn and enhance our instrumental and ensemble playing skills, but also to explore the rich repertoire and the tradition of classical music. This is a Pass/Fail course.

Credits: 0.5/ year

Prerequisites: None

Grades: 9-12

Music 10-12 is a year-long course designed to consolidate the students' previous knowledge of music in the areas of music literacy, theory, appreciation and composition, including digital composition. Students will have opportunities to listen to and analyze music from the Medieval period until the present day, create music to given guidelines, and reflect upon a variety of musical styles. Students taking this course will have the opportunity to learn or improve in the areas of composition, score-reading and writing and musical analysis. In

addition, the student will be introduced to topics in theory (particularly harmony and form) and music history. Although one of the goals of this course is to prepare the students adequately for continued studies in the IBDP Music program, participation is in no way restricted to those who have this intention, and the course works equally well as a one-year foundation course in musical history, analysis, and composition.

Credits: 1.0 / year

Prerequisites: None

Grades: 10-12

IB Music SL/HL is a two year course where students will be expected to develop and refine their performance skills on a chosen instrument or voice, create and develop a portfolio of original compositions or arrangements, undertake self-directed research on music of interest to the student, have the opportunity to use digital tools, follow a course of musical analysis covering music of many kinds, and study musical works in depth. There is no written exam paper for IB Music: the assessment is based entirely on internally- and externally-assessed work (practical and written) created during the course and submitted to the IB. This consists of written analysis, performance and composition work of various kinds as well as, for HL students, a more self-directed project undertaken with a partner.

Credits: 1.0 / year

Prerequisites: Capable musicians already competent at reading music and singing/playing at least one instrument. Students should continue lessons with a specialist teacher throughout the course.

Grades: 11-12

Drama 9 is a year-long course which meets three times per eight-day cycle. Students will learn on their feet and train as ensemble members, including how to use improvisation techniques as a way of exploring ideas together while gaining practical understanding of some of the various forms and genres of theater. Students will enhance their performance skills while developing the use of visual, auditory, and spatial awareness.

Credits: 0.5/ year

Prerequisites: None

Grades: 9

Performance Theater 10-12 is a year-long elective course in which students will refine their skills in various theatre techniques including acting, directing, critiquing, ensemble work and text analysis. Students should come to appreciate and understand some of the different styles, periods, practitioners and genres of theatre throughout history.

Credits: 1.0 / year

Prerequisites: None

Grades: 10-12

IB Theater SL/HL is a two year course encouraging discovery through experimentation, risk-taking and the presentation of ideas. The course is multi-faceted and gives students the opportunity to actively engage in theatre as creators, designers, directors and performers. It emphasizes working both individually and collaboratively as part of an ensemble. Students learn to apply research and theory to inform and to contextualize their work. Through researching, creating, preparing, presenting and critically reflecting on theatre, they gain a richer understanding of themselves, their community and the world. Students experience the course from contrasting artistic and

FIS Course Guide



cultural perspectives. They learn about theatre from around the world, the importance of making theatre with integrity, and the impact that theatre can have on the world.

Credits: 1.0 / year

Prerequisites: Previous experience in theatre, such as being in HS productions, or having taken Grade 9 Drama or Grade 10 Performance Theatre (or similar courses).

Grades: 11–12

Visual Arts 9 is a year-long course which meets three times per eight-day cycle. The course asks the students to realize and appreciate that art is all around us, to explore the ways in which known and unknown cultural aesthetics affect the appearance and impact of the visual world around them. It also asks them to express complex and personal notions in their artwork, to appreciate that creative efforts can reveal issues and ideas about themselves and, finally, to demonstrate fluency with the fundamental elements and principles of art and design. Units of prescribed study include exercises involving the fundamental elements of art & design, color theory, mark making and mask making.

Credits: 0.5/ year

Prerequisites: None

Grades: 9

Foundation Arts 10–12 is a year-long elective course with the general aim to familiarize students with the processes of planning, researching and experimenting in preparation for studio artwork. The course also aims to familiarize students with the common expectations regarding the development of a thematic approach to art. The emphasis on the sketchbook (Visual Arts Journal) is paramount, as the student needs to exit with a working knowledge of the basics of keeping a daily art

journal and using it as a primary idea-development tool for studio work at the IB level. The course often culminates where students devise their first studio work based upon a well-researched and well-conceived theme documented in their sketch book.

Credits: 1.0 / year

Prerequisites: None

Grades: 10–12

Layout and Graphic Design 10–12 is a single semester course meeting six times a cycle in which the focus will be to give students a foundational understanding of Graphic Design concepts and techniques as are commonly used by commercial advertising companies. There will be three units on Typography, Color and Poster design, inspired by the works of famous designers. During the course, we will work in various media in both traditional 2D and digital. Ultimately, we will explore how to effectively and visually communicate ideas to an audience using clear bold colors, fonts and imagery.

Credits: 0.5/ semester

Prerequisites: None

Grades: 10–12

Methodologies in Visual Arts 10–12 is a single semester course meeting six times a cycle designed as a deep dive experience of how an artist goes about imagining, realizing and refining a single complex artwork and executing that work over an extended period of time. From initial plans and ideas, sketches and proposals to experiments in various media and materials and techniques, the course will follow the organic growth and development of a single piece of visual expression with major assessment emphasis placed on the various stages of the process and record of how that work evolved. The nature

of the project will change from semester to semester depending upon perceived needs and the instructor's strengths and specialization.

Credits: 0.5/ semester

Prerequisites: None

Grades: 10–12

IB Visual Arts SL/HL is a two year long course for students who are seriously interested in the visual arts. This course currently (changes will be coming in the next year but we are not aware of what they may be) has specific criteria set for three separate components (the Exhibition, the Process Portfolio and the Comparative Study) which are clearly defined and quite demanding. The course stresses practice in the use of various media, the acquisition of techniques, the mature development of creative ideas and the ability to relate to multiple forms of art in social and historical contexts. A portfolio of the student's artwork will be compiled. Over the final year of the course, the students will be working in a variety of techniques and media to develop their skills and understanding of the elements of the visual arts in both two and three-dimensional formats. All students must exhibit their studio work (usually 4–7 resolved artworks for SL and 8–11 resolved pieces of work for HL students), present their process and development efforts and write a comparative study of three artworks or artifacts. Students are expected to perform independent research and make tangible connections between their developing work and the results of their research in their journal. This includes but is not limited to the work of other artists, the influence of social and cultural elements and the product of historical investigation.

Credits: 1.0 / year

Prerequisites: Visual Arts 10–12 recommended

Grades: 11–12

English

Grade 9 English Language & Literature is a one year course built around inquiry-driven concept-based units, such as Culture or Community. These units help students to see patterns and make connections between literary and non-literary texts. Students build their speaking and listening skills in a variety of formats, such as speeches, role play, and class debates. In their reading and writing, they develop their understanding of central aspects of human experience, characters and relationships, and how writers use stylistic devices to guide readers' insights. There is an emphasis on critical analysis, and essay writing skills are honed. Private reading is promoted, and students read a range of literature in class, including modern plays and novels. Students also study several visual texts and complete a film study. Questions of rationality, emotion and bias are investigated in writing and speech.

Recent texts: *To Kill A Mockingbird* by Harper Lee, *The Secret Life of Bees* by Sue Monk Kidd, *An Inspector Calls* by J.B. Priestley, and *DNA* by Dennis Kelly

Credits: 1.0 / year

Prerequisites: G8 English Language & Literature or teacher recommendation

Grades: 9

Grade 10 English Language & Literature is a one year course which prepares students for IB Language A courses. The course is built around key concepts, such as Justice or Perspectives, and taught in thematic units. The course features an increasing emphasis on implicit meaning and formal development of supported argument. Students build their speaking and listening skills in a variety of formats, such as speeches and class discussions. In their reading and writing, they develop their

understanding of central aspects of human experience, characters and relationships, and how writers use stylistic devices to guide readers' insights. There is an emphasis on critical analysis, and essay writing skills are honed. A 1200-1500-word Independent Investigation on a question chosen by the student is developed in the middle of the course, preparing for later research and sustained essay work. Private reading is promoted, and students also read a range of complex literature in class, including Shakespearean tragedy.

Recent texts: *Macbeth* by William Shakespeare, *The Reluctant Fundamentalist* by Moshin Hamid, *Things Fall Apart* by Chinua Achebe and selected short stories, poems, and non-fiction texts.

Credits: 1.0 / year

Prerequisites: G9 English Language & Literature or teacher recommendation

Grades: 10

Grade 10 English Language Acquisition (ELA) Bridging is a one year course designed to further develop students' language proficiency. Students work with a variety of fiction and non-fiction texts, including factual, literary, and media works, to build skills in analysis, comprehension, and text-handling. The course also emphasises interpreting implicit meaning and constructing well-supported arguments in diverse communicative contexts. Students are expected to produce a range of text types and enhance their speaking and listening skills through activities such as speeches, role plays, and debates. Writing assignments focus on creating clear, well-structured responses to complex topics, while visual media, such as film

and news, are also analysed to strengthen critical thinking.

Credits: 1.0 / year

Prerequisites: Meeting the descriptors for Bridging level or teacher recommendation.

Grades: 10

English Language Acquisition (ELA) Emerging (CEFR A2-B1)

is a two-period course which will develop students' ability in gaining the English knowledge and skills that they need in order to communicate in all academic disciplines. The course aims to improve the skills of critical reading, listening comprehension, oral communication and academic writing. *ELA Reading/Writing* further develops competence in reading and writing skills and conversational and academic vocabulary. The focus is more on academic writing covering various text types using more precise vocabulary and structures. *ELA Subject Support* reinforces content, concepts and vocabulary necessary to access the language demands of the curriculum in the other subjects.

Credits: 2.0 / year

Prerequisites: ELA Beginning or ELA Emerging in Middle School as well as teacher recommendation.

Grades: 9–10

English Language Acquisition (ELA) Transitioning (CEFR B1-B2)

is a one-period course which will develop students' ability in acquiring the English knowledge and skills that they need in order to communicate proficiently in all academic disciplines. The curriculum is aimed at developing the skill



areas of critical reading and listening comprehension, oral communication and writing. Students complete various tasks based on fiction and non-fiction texts. The major focus of the Transitioning class is improving students' ability to read and write academic texts fluently and accurately. Students at this level must have a wide vocabulary and strong understanding of mechanics of English language. As well as focusing on language acquisition, some class time is devoted to helping students understand and complete their assignments in their other subjects.

Credits: 1.0 / year

Prerequisites: ELA Emerging or teacher recommendation

Grades: 9–12

College Prep English is a one or two year course that develops students' skills, knowledge, and understanding in the main areas of English, namely writing, reading, speaking, listening and viewing. There is a particular emphasis on helping students develop English skills to a level that will allow them to succeed in college-level studies. The course is built around inquiry-driven concept-based units, such as Culture, Perspective, or Systems. Students will explore many aspects of human experience through a range of literary and non-literary texts from different parts of the globe. This course may be followed for two years, as material covered will alternate each year.

Recent texts: *Kindred* by Antonia Butler, 'Art' by Yasmina Reza, *A Man Called Ove* by Fredrik Backman; short stories; poems; and extracts from other text types, including multi-modal and visual texts.

Credits: 1.0 / year

Prerequisites: None

Grades: 11–12

IB English A: Language and Literature SL/HL is a two year course which requires students to be either native or very near-native speakers of English in terms of both their oral and written skills, and will appeal to students who may be less inclined towards a course focused solely on literary study. The course looks more openly at the method of inquiry embodied in critical literacy and is directed towards understanding the constructed nature of meanings generated by language and the web of relationships they share with the social world. Language and Literature is built on three areas of exploration: Reader, Writer, Text; Time and Space; and Intertextuality. Students at Standard Level study 4 literary works, and a range of articles, advertisements, blog posts and other non-literary texts. Students at Higher Level study 6 literary works, as well as other non-literary texts. Students study literature in its cultural context, as well as in detailed textual analysis. Works studied come from different genres and places, while some works are read in translation. An understanding of the ways in which formal elements are used to create meaning in a text is combined with an exploration of how that meaning is affected by reading practices that are culturally defined, and by the circumstances of production and reception. The course is organized around seven key concepts defined by the IB, so that students study literary and non-literary texts that are linked by theme. All students are required to consider some texts in terms of how they address global issues, and the final examinations will include an individual oral presentation, as well as written papers. Higher Level students are also required to write a 1,200–1,500-word formal essay which develops a particular line of inquiry of their own choice regarding material from their course.

Recent texts: *Othello* by Shakespeare, *The Bluest Eye* by Morrison, *A Man Called Ove* by Backman, *The Elephant Vanishes* by Murakami and selected poems by Naomi Shihab Nye. There is also an element of student choice for texts. Literary selections may change according to teacher and class preference, but the syllabus will conform to IB guidelines for Language A Language and Literature.

Credits: 1.0 / year

Prerequisites: Recommendation of Grade 10 English teacher or placement test

Grades: 11–12

IB English A: Literature SL/HL is a two year course designed for the student with a definite inclination towards the study of literature. The course is for motivated native speakers of English or students with near-native speaker fluency. In English Literature, the focus is directed towards developing an understanding of the techniques involved in literary criticism and promoting the ability to form independent literary judgments, which are then expressed orally and in written work. Students study works from different genres and places, while some works are read in translation. The course is built on three areas of exploration: Reader, Writer, Text; Intertextuality; Time and Space. Through their study of literary texts, students are encouraged to develop the ability to reflect critically on their reading with the goal of understanding how great writers create extraordinary effects and help shape human experience. Higher Level students are required to study 13 texts, and are expected to show a deeper understanding of content and writers' techniques than Standard Level students, who study 9 texts. All students will be required to consider some texts in terms of how they address global issues, and the final assessments will include an individual oral examination, as well as written papers. Higher Level students are also required to write a 1,200–1,500-word formal essay which develops a particular line of inquiry of their own choice regarding material from their course.

Recent texts: *The Assault* by Mulisch, *Chronicle of a Death Foretold* by Marquez, *Perfume* by Süskind, *Frankenstein* by Shelley, *Death and the Maiden* by Dorfman, *The Bluest Eye* by Morrison, *Othello* by Shakespeare, *Heart of Darkness* by Conrad, and *The Handmaid's Tale* by Atwood. Literary selections may change according to teacher and class preference, but the syllabus will conform to IB guidelines for Language A Literature.

Credits: 1.0 / year

Prerequisites: Recommendation of Grade 10 English teacher or placement test

Grades: 11–12

IB English B SL/HL is a two year language acquisition course designed for students with some previous experience of English. In English B, students further develop their ability to communicate in English through the study of language, concept topics and texts. In doing so, they also develop conceptual understandings of how language works, as appropriate to the level of the course. The main focus of the course is on language acquisition and the development of language skills. This course is designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where English is spoken. Classwork ranges from everyday oral exchanges to literary texts, and is related to the English-speaking world. The texts and topics studied are chosen to enable students to develop mastery of language skills and encourage the learner to go beyond the confines of the classroom, expanding an awareness of the world and fostering respect for cultural diversity. At Higher Level, students are required to read two works of literature originally written in English. The course comprises five topics that will be explored throughout the course: Identity, Experiences, Human Ingenuity, Social Organizations and Sharing the Planet. **Recent texts:** *Of Mice and Men* by Steinbeck, *The Curious Incident of the Dog in the Nighttime* by Mark Haddon and *Friday Black* by Adjei-Brenyah

Credits: 1.0 / year

Prerequisites: English Language Acquisition B Prep or teacher recommendation

Grades: 11–12



Non-English Languages

French Language Acquisition Level 1, 2/3, 3/4, 4/5 are each a one year course where students will be expected to demonstrate the communicative skills of listening, speaking, reading and writing in everyday situations depending on the level students are enrolled in. Students will be expected to learn the language, learn through the language, and learn about the language. Students will learn how to select language appropriate to a particular cultural and social context, cultural interactions, and handle the French language accurately. These courses offer students the opportunity to sit the DELF examinations (A2, B1, B2) following the Common European Framework of Reference for languages. This diploma, awarded by France Éducation International, assesses and certifies the level of proficiency reached by students and is valid for life.

Credits: 1.0 / year

Prerequisites: Teacher Recommendation or completion of the previous level

Grades: 9–12

G9 - G10 French Language & Literature are each a one year course designed to engage students in the study of many aspects of the language and literature of communities and their cultures. It offers a study of a wide range of literary and non-literary text types, writing styles and techniques, allowing students to comment on the significance of any possible contexts, audiences, purpose, and the use of linguistic and literary devices. While the course offers a full range of genre, themes, and opportunities for skill development, its design also promotes students' social and academic development. Over the course of the year, students will refine their essay writing skills and learn how to debate a contentious topic.

Grammar and vocabulary enrichment are integrated into reading and writing instruction. Students build their speaking and listening skills in a variety of formats, such as speeches, role play, and class debates. In reading and writing work they develop their understanding of central aspects of human experience, characters and relationships, and how writers use stylistic devices to guide readers' insights.

Credits: 1.0 / year

Prerequisites: Native fluency and teacher recommendation

Grades: 9, 10

IB French Ab Initio SL is two year course where students will be expected to demonstrate receptive, productive and interactive skills. Students will be expected to understand and respond appropriately in French to the spoken language; engage in conversation in order to express information fairly accurately, in both writing and in speech, using a range of basic vocabulary and grammatical structures. They will be able to understand simple authentic written texts and questions related to them. Students will demonstrate some intercultural understanding by reflecting on similarities and differences between the target culture and the student's own. This course offers students the opportunity to sit the DELF examination (A2) following the Common European Framework of Reference for languages. This diploma, awarded by France Éducation International, assesses and certifies the level of proficiency reached by students and is valid for life.

Text: *Panorama Francophone 1 et 2*

Credits: 1.0 / year

Prerequisites: Little or no previous experience with the French language

Grades: 11–12

IB French B SL/HL is a two year course that is focused on language acquisition and development of language skills. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts, and are related to the culture concerned. The material is chosen to enable students to develop mastery of language skills and intercultural understanding. Core topics include communication and media, global issues and social relationships. There are two options selected from a total of five topics. The topics chosen at FIS are cultural diversity and health. At Higher Level, two works of literature are studied in relation to culture. At Standard Level, the literature component is optional. This course offers students the opportunity to sit the DELF examinations (B1-B2) following the Common European Framework of Reference for languages. This diploma, awarded by France Éducation International, assesses and certifies the level of proficiency reached by students and is valid for life.

Text: *IB Course Companion French B*

Credits: 1.0 / year

Prerequisites: Successful completion of French Language Acquisition Level 3/4 (SL), Level 4/5 (HL) or teacher recommendation

Grades: 11–12

IB French A Language & Literature SL/HL is a course which requires students to at native French levels in terms of both their oral and written skills. Students study four focused areas including: works in translation, detailed study, literary genres, and an open option of three works. The course involves a critical study of literary and non-literary texts. Students learn

about the use of language in cultural contexts, and in mass communication. They also study literature in its cultural context, as well as in detailed textual analysis. An understanding of the ways in which formal elements are used to create meaning in a text is combined with an exploration of how that meaning is affected by reading practices that are culturally defined and by the circumstances of production and reception.

Credits: 1.0 / year

Prerequisites: Successful completion of French Language & Literature 10 or teacher recommendation

Grades: 11-12

German Language Acquisition Level 1, 1/2, 2/3 are each one year courses where students will be expected to demonstrate the communicative skills of listening, speaking, reading and writing in everyday situations depending on the level students are enrolled in. Students will be expected to learn the language, learn through the language, and learn about the language. Students will learn how to select language appropriate to a particular cultural and social context, cultural interactions, and handling the German language accurately.

Credits: 1.0 / year

Prerequisites: Teacher Recommendation or successful completion of the previous level

Grades: 9-12

G9 German Language Acquisition Level 3/4 is a one year course designed for highly competent non-native speakers or for students with near-native speaker competence in grade 9. Students will review and improve the four language skills of writing, reading, speaking, listening comprehension; to expand

vocabulary and idiomatic expression; to further fluency of speech, and to lead students to the appreciation of literature using first steps of critical analysis.

Credits: 1.0 / year

Prerequisites: G 8 German Language Acquisition Level 2-3, 3-4 or teacher recommendation

Grades: 9

G10 German Language Acquisition Level 3/4 is a one year course which will review some key issues of German grammar. The aim of the course is to expand and increase mastery of vocabulary through continued attention to the global themes of change, groups and leisure time in conjunction with current event materials and selections from German literature, all of which ensures a broad preparatory basis for the IB German B course the following year.

Credits: 1.0 / year

Prerequisites: G 9 German Language Acquisition Level 2-3 or teacher recommendation

Grades: 10

G10 German Language Acquisition Level 4/5 is a one year course designed for highly competent non-native speakers or for students with near-native speaker competence in grade 10. The emphasis is on reading and writing and listening; to expand vocabulary and idiomatic expression; to further fluency of speech, and to lead students to the appreciation of literature using critical analysis.

Credits: 1.0 / year

Prerequisites: G 9 German Language Acquisition Level 3/4 or teacher recommendation

Grades: 10

G9 German Language & Literature is a one year course designed for native speakers or for students with near-native speaker competence. The aims of the course are to review and improve basic skills (writing, reading, speaking, listening comprehension); expand vocabulary and idiomatic expression; further fluency of speech; lead students to the appreciation of literature through critical analysis; bring them in contact with ways of thought different from their own.

Credits: 1.0 / year

Prerequisites: Native or near-native level German

Grades: 9

G10 German Language & Literature is a one year course designed for native or near-native speakers of German. This is a language & literature course in which students read a variety of novels, novellas, ballads and plays. They are starting to develop analytical and critical listening skills. Students practice creative writing as well as oral presentation skills. Students are also introduced to global issues. The aims of the course are to emphasize literature and composition and to prepare students for the IB language A: Literature and/or IB A Language and Literature courses.

Credits: 1.0 / year

Prerequisites: Native or near-native level German

Grades: 10

IB German Ab Initio SL is a two year course where students will be expected to demonstrate receptive, productive and interactive skills. Students will be expected to understand and respond appropriately in German to the spoken language; engage in conversation in order to express information fairly

FIS Course Guide



accurately, in both writing and in speech, using a range of basic vocabulary and grammatical structures. They will be able to understand simple authentic written texts and questions related to them. Students will demonstrate some intercultural understanding by reflecting on similarities and differences between the target culture and the student's own.

Credits: 1.0 / year

Prerequisites: Little or no previous experience with the German language

Grades: 11-12

IB German B SL/HL is a two year course that is focused on language acquisition and development of language skills of speaking, writing, reading and listening. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts, and is related to the culture concerned. The material is chosen to develop students' power of expression in both oral and written communication, to promote the ability to respond to the language demands of transactional and social contacts, to help students gain insights into how users of other languages think, as well as to provide enjoyment and intellectual stimulation.

Texts: *Two pieces of literature based on selected topics (HL)*

Credits: 1.0 / year

Prerequisites: Successful completion of German Language Acquisition 2/3 (SL), 4/5 (HL) or by teacher recommendation

Grades: 11-12

IB German A: Language and Literature SL/HL is a two year course which requires students to be either native or near-native speakers of German in terms of both their oral and written skills, and will appeal to students who may be less inclined towards a course focused solely on literary study. The course looks more openly at the method of inquiry embodied in critical literacy and is directed towards understanding the constructed nature of meanings generated by language and the web of relationships they share with the social world. Language and Literature is built on three areas of exploration: Readers, Writers & Text; Time and Space; Intertextuality.

Students at Standard Level study 4 literary works, and a range of articles, advertisements, blog posts and other non-literary texts. Students at Higher Level study 6 literary works, as well as other non-literary texts. Students study literature in its cultural context, as well as in detailed textual analysis. Works studied come from different genres and places, while some works are read in translation. An understanding of the ways in which formal elements are used to create meaning in a text is combined with an exploration of how that meaning is affected by reading practices that are culturally defined, and by the circumstances of production and reception. The course is organized around seven key concepts defined by the IB, so that students study literary and non-literary texts that are linked by theme. All students are required to consider some texts in terms of how they address global issues, and the final examinations will include an individual oral presentation, as well as written papers.

Higher Level students are also required to write a 1,200 – 1,500-word formal essay which develops a particular line of inquiry of their own choice regarding material from their course.

Texts: *SL has four selected pieces of literature while HL has six.*

Credits: 1.0 / year

Prerequisites: Successful completion of German Language & Literature 10 or teacher recommendation

Grades: 11-12

IB German A: Literature SL/HL is a two year course designed for the student with a definite inclination towards the study of literature. The course is for native speakers of German or students with near-native speaker fluency. In German Literature, the focus is directed towards developing an understanding of the techniques involved in literary criticism and promoting the ability to form independent literary judgments, which are then expressed orally and in written work. Students study works from different genres and places, while some works are read in translation. The course is built on three areas of exploration: Readers, Writers & Text; Time and Space; Intertextuality. Through their study of literary texts, students are encouraged to develop the ability to reflect critically on their reading with the goal of understanding how great writers create extraordinary effects and help shape human experience. Higher Level students are expected to show a deeper understanding of content and writers' techniques than Standard Level students. All students will be required to consider some texts in terms of how they address global issues, and the final assessments

FIS Course Guide

18

will include an individual oral examination, as well as written papers. Higher Level students are also required to write a 1,200–1,500-word formal essay which develops a particular line of inquiry of their own choice regarding material from their course.

Texts: Literary selections may change according to teacher and class preference

Credits: 1.0/ year

Prerequisites: Successful completion of German Language & Literature 10 or teacher recommendation

Grades: 11-12

G9/10 Japanese Language & Literature is a one year course designed for native speakers or for students with near-native speaker competence, which can be taken in both grades 9 and 10. The aims of the course are two-folds; (a) to enhance basic/fundamental Japanese language skills and (b) to familiarize themselves with literature as an introduction and preparation towards the IB Literature course. The activities and assignments for the former include expanding vocabulary and expressions, learning how to write essays, kanji tests, writing news reports, classroom discussions and presentations. For those of the latter, the students will learn how to read and understand various types of literary texts to develop basic analytical skills. They will also need to gain knowledge of Japanese society, its history, culture, current affairs and social issues in order to better understand the world of literature.

Credits: 1.0/year

Prerequisites: native or near-native fluency and teacher recommendation

Grades: 9/10

Please note there is an additional cost for this course.

IB Japanese A Literature SL/HL is a two year course, which introduces students with native fluency in Japanese to the analysis of literary texts. The course is designed on three areas of exploration: Readers, Writers & Text; Time and Space; and Intertextuality. By studying various types of texts such as novels, non-fiction prose, dramatic plays, and poems from different times and places, they will develop the ability to reflect critically on their reading and learn to analyze literary texts through rhetorical skills and conceptual understanding. They are required to conduct an individual oral exam, in which they will explore how a global issue is presented in two of the works studied in class, and sit for two written exams, Papers 1 and 2, at the end of the course. Paper 1 is to analyze unseen texts by answering the open-ended guiding question, and Paper 2 is to write a comparative analysis of the works studied. In addition, students at Higher Level (HL) will produce a formal essay of 2,400-3,000 letters which develops a particular line of inquiry of their own choice regarding one of the works from the course. Through the process, students will consider how texts convey meaning and how literature represents the world, and will also foster a lifelong enjoyment of language and literature. The total number of literary works studied over the two years is 7 for students at Standard Level (SL) and 10 for HL at least, including 2 works in translation for SL, and 3 for HL.

Credits: 1.0 / year

Prerequisites: Native fluency and teacher recommendation

Grades: 11-12

Please note there is an additional cost for this course.

G9 Korean Language & Literature is a one year course designed for native speakers of Korean who plan to study in Korea in the future or take IB Korean A course. The resources used are Korean literature, Korean essays, and various texts from Korean school textbooks. The students will learn advanced vocabulary, handling of texts and writing, and answer questions about the texts. Also, they will write many commentaries and essays about the texts using their opinions. Students will also learn Chinese characters due to their importance in structuring Korean words. After this course, the students can analyze and critique various texts by themselves.

Credits: 1.0 / year

Prerequisites: Native fluency

Grades: 9

Please note there is an additional cost for this course.

G10 Korean Language & Literature is a one year course designed for native speakers of Korean who plan to study Korean in the future or take IB Korean A course. The resources used are Korean literature, Korean essays, and various texts from Korean school textbooks. The students will learn advanced vocabulary, handling of texts and writing, and answer questions about the texts. Also, they will write many commentaries and essays about the texts using their opinions. Students will also learn Chinese characters due to their importance in structuring Korean words. After this course, the students can analyze and critique various texts by themselves.

Credits: 1.0 / year

Prerequisites: Native fluency

Grades: 10

Please note there is an additional cost for this course.

FIS Course Guide



IB Korean A Literature SL/HL is a two year course which is designed for the student with a definite inclination towards the study of literature and who may intend to continue such studies beyond the Diploma level. The course focuses on in-depth literary analysis and appreciation in both oral and written capacity. Students will be required to write essays, conduct independent research and participate in informal and formal orals for internal and external assessment. The total number of texts studied over the two years is 7(SL) or 10(HL) at least, including 3 World Literature works, which are read in translation.

Credits: 1.0 / year

Prerequisites: Native fluency and teacher recommendation

Grades: 11-12

Please note there is an additional cost for this course.

Spanish Language Acquisition Level 1, 2/3, 3/4, 4/5 are each one year courses where students will be expected to demonstrate the communicative skills of listening, speaking, reading and writing in everyday situations depending on the phase students are enrolled in. Students will be expected to learn the language, learn through the language, and learn about the language. Students will learn how to select language appropriate to a particular cultural and social context, cultural interactions, and handling the Spanish language system accurately. This course offers students the opportunity to sit the DELE examinations (A2, B1, B2) following the Common European Framework of Reference for languages. This diploma, awarded by the Spanish Instituto Cervantes, assesses and certifies the level of proficiency reached by students and is valid for life.

Credits: 1.0 / year

Prerequisites: Teacher Recommendation or completion of the previous level

Grades: 9-12

G9 - G10 Spanish Language & Literature are each a one year course designed to engage students in the study of many aspects of the language and literature of communities and their cultures. It offers a study of a wide range of literary and non-literary text types, writing styles and techniques, allowing students to comment on the significance of any possible contexts, audiences, purpose, and the use of linguistic and literary devices. Over the course of the year, students will refine their essay writing skills and learn how to debate a contentious topic. Vocabulary enrichment is integrated into the reading and writing instruction. In reading and writing work they develop their understanding of central aspects of human experience, characters and relationships, and how writers use stylistic devices to guide readers' insights both in oral form and writing form.

Credits: 1.0 / year

Prerequisites: Native/near native fluency and teacher recommendation

Grades: 9, 10

IB Spanish Ab Initio SL is a two year course where students will be expected to demonstrate receptive, productive and interactive skills. Students will be expected to understand and respond appropriately in Spanish to the spoken language; engage in conversation in order to express information fairly accurately, in both writing and in speech, using a range of basic vocabulary and grammatical structures. They will be able to understand simple authentic written texts and questions related to them. Students will demonstrate some intercultural understanding by reflecting on similarities and differences between the target culture and the student's own. In addition to the IB examination, this course offers students the opportunity to sit the DELE examination (A2) following the Common

European Framework of Reference for languages. This diploma, awarded by the Spanish Instituto Cervantes, assesses and certifies the level of proficiency reached by students and is valid for life.

Text: *Diverso Basico*

Credits: 1.0 / year

Prerequisites: Little or no previous experience with the Spanish language

Grades: 11-12

IB Spanish B SL/HL is a two year course that is focused on language acquisition and development of language skills of speaking, writing, reading and listening. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts, and should be related to the culture(s) concerned. The material should be chosen to enable students to develop mastery of language skills and intercultural understanding. In addition to the IB examination, this course offers students the opportunity to sit for the DELE examinations (B1, B2) following the Common European Framework of Reference for languages. This diploma, awarded by the Spanish Instituto Cervantes, assesses and certifies the level of proficiency reached by students and is valid for life.

Texts: Spanish B, Spanish B Course Companion

Credits: 1.0 / year

Prerequisites: Successful completion of Spanish Language Acquisition Level 3/4 (SL), Level 4/5 (HL) or teacher recommendation.

Grades: 11-12

IB Spanish A Language & Literature SL/HL is a two year course which provides students of native or near-native Spanish proficiency an understanding of how language, culture and context determine the ways in which meaning is constructed in texts. 'Texts' in this class means not only all literary genres from different periods but also cartoons, posters, movies, publicity campaigns, marketing strategies, etc. Students are encouraged to think critically about the different interactions between texts, audience and purpose. This course focuses also on the development of students' ability to engage in detailed analysis of individual texts and powers of expression, both in oral and written communication. We work on the ability to recognize the importance of context of texts and the different perspectives of people from other cultures as well as to appreciate formal, stylistic and aesthetic qualities of texts.

Credits: 1.0 / year

Prerequisites: Successful completion of Spanish Language & Literature 10 or teacher recommendation

Grades: 11-12

IB Literature A SL – School Supported Self Taught (SSST) is a two year independent course designed to allow students to continue with their native language not offered by FIS. Students are expected to be literate in their native language upon starting the course as the main focus of the course is literature, not language acquisition. Students must work independently with a qualified IB Literature teacher so that students can benefit from specialist feedback in the areas of language skills, academic writing, and cultural content. To enroll, students will need to work closely with the outside teacher and the FIS IB diploma coordinator. This course fulfills the FIS language graduation requirement, as well as the Group 1 IB Diploma requirement. This course is available as a Standard Level subject only.

Credits: 1.0/ year

Prerequisites: Fluency with reading and writing in your Self Taught language, approval by IB Diploma Coordinator and counselor

Grades: 11-12

Please note there is an additional cost for this course as agreed upon by the teacher.

Identity Language Program is a year-long course which meets six times per eight-day cycle. This course aims to help students maintain and further develop their knowledge of their home and/or identity language and culture, as well as acquiring a language of their interest. Students meet virtually with their native speaker professional tutor once per week, and complete the assigned work during the rest of the sessions before the next meeting. This program not only enhances students' linguistic knowledge, it also fosters their self-management and organization skills, both key approaches to learning at FIS. There is an additional cost for this course.

Credits: 1.0/ year

Prerequisites: Appropriate course confirmed with Identity Language Program Coordinator.

Grades: 9-10

Please note there is an additional cost for this course.

FIS Course Guide



Humanities

Geography 9 is a one semester course that examines the relationship between human settlements and the natural world, offering students an opportunity to engage with critical global issues.. In the Urban Environments module, students will explore the growth and development of cities and the challenges posed by rapid urbanization. They will investigate real-world examples of urban planning and infrastructure management. Fieldwork and primary data collection will be integral to this module, allowing students to conduct hands-on investigations into local urban environments, analyse their findings, and connect theory to practice. The Physical Hazards module focuses on natural disasters such as earthquakes and volcanic eruptions, emphasising the concept of risk. Students will explore the causes and impacts of these hazards and examine the role of vulnerability and resilience in shaping their effects. Key concepts, including geopolitical risk, will be explored to highlight how political and economic tensions can influence disaster response, resource distribution, and risk management at local, national, and global scales. By combining classroom learning with field-based experiences, this course develops students' analytical and problem-solving skills. They will gain a deeper understanding of the complex interactions between human and natural systems and be equipped to thoughtfully address sustainability, resilience, and risk management issues in an interconnected world.

Text: *IGCSE Geography* by Gary Chambers and Steve Sibley

Credits: 0.5 / Semester

Prerequisites: None

Grades: 9

History 9 is a one semester course continuing the study of Revolutions and 19th century themes. This course concentrates on historical events and issues during the first half of the 20th century. The main focus is on the First and Second World Wars and the rise of Nazism in Germany. Various issues connected with the period such as economic and political factors, human rights and citizenship will be explored in depth. Students are expected to develop a knowledge and understanding of the topics studied while developing an understanding of interpretations of history as well. Students will also be expected to use and deal with a variety of primary and secondary source materials. Emphasis is placed on the development of compare/contrast skills, analysis and knowledge-based skills including essay writing and source analysis.

Text: *GCSE Modern World History* by Ben Walsh

Credits: 0.5 / semester

Prerequisites: None

Grades: 9

Applied Psychology 10-12: Psychology is a multidisciplinary subject that applies the scientific method to understanding the behavior of individuals and groups. This semester course examines the practical applications of psychological theories, research and concepts to specific applied areas of the human condition. Students will gain an understanding of childhood development, human relationships formation, mental illness, happiness and violence. Students will adopt the perspectives of the behavioral scientists and gain a basic understanding of how these applied areas of behavior are explained, while also critically examining the research that supports these reasons.

It is a more specialized course than the Introduction to Psychology semester course.

Text: *AS Level Psychology* by Michael Eysenck

Credits: 0.5 /year

Prerequisites: None

Grades: 10-12

Business 10-12 is a one semester course where students study introductory topics about how businesses are set up and run. Across the semester we will study three Units, including Marketing, Operations Management and Finance and Accounts and Human Resource Management. The aim is to help students understand how businesses make decisions in different contexts and real-life businesses will be studied. Students also undertake a Marketing project where they create a business plan for a business. This involves conducting market research, choosing which consumers to target and then presenting this at the end of the semester.

Text: *IGCSE Business Studies Coursebook* by Mark Fisher

Credits: 0.5 / semester

Prerequisites: None

Grades: 10-12

Economics 10-12 is a one semester course where students will learn how economic agents make decisions and how governments can intervene in markets to improve resource allocation. Through studying Demand & Supply, Government Intervention and International Economics they will apply economic models to real world situations to explain and predict economic outcomes. Students will undertake research,

FIS Course Guide

22

carry out calculations, write short essays and collect and interpret data. Analytical, critical thinking and data interpretation skills will be developed.

Credits: 0.5 / year

Prerequisites: None

Grades: 10-12

Global Politics 10-12 is a one semester course which introduces students to international relations and global affairs. The course uses current events, case studies and news to explore concepts such as power, equality, human rights, sustainability, peace, conflict and development. The course helps students to understand and explore political issues affecting their own lives, as well as broader global themes including migration, climate change, security, health, poverty, and the UN in the global system. Students will explore the relationship between people and power through simulations, debates, projects and other assessment formats.

Texts: *Global Politics for A level* by Murphy, Jeffries & Gadsby

Credits: 0.5 / year

Prerequisites: None

Grades: 10-12

Introduction to Psychology 10-12: Psychology is a multidisciplinary subject that applies the scientific method to understanding the behavior of individuals and groups. This semester course focuses on building an understanding of the complexity of human behavior, through the lens of the three core conceptual approaches (biological, cognitive, social) that are used by psychologists. Students will adopt the perspectives of the behavioral scientists and gain a basic understanding of the

underlying reasons for behavior, while also critically examining the research that supports these reasons. Students will also assess the extent to which these theories and studies explain human behavior in real world settings and are valid when holding people responsible and accountable for their actions.

Text: *AS Level Psychology* by Michael Eysenck

Credits: 0.5 / year

Prerequisites: None

Grades: 10-12

Personal Finance 10-12 is a one semester course which introduces students to managing their money and finances now and in the future. Students will learn topics such as budgeting, savings and bank loans, investing in the stock market and calculating taxes. Focus will be given to learning about situations which students may face throughout their life such as understanding student loans and buying a home. We will also briefly look at how technology has and will affect your personal finances, in particular how cryptocurrency and NFTs might impact a person's savings.

Texts: *Personal Finance* by Rachel Siegel

Credits: 0.5 / year

Prerequisites: None

Grades: 10-12

US History 10-12 is a one year course investigating the United States history from its founding through the Cold War. Students will critically examine the founding ideals of the country and then evaluate throughout the year, how well the United States lived up to those ideals. Students will study the development and structure of the government. They will look at the causes

of the growing divide of North and South that led to the Civil War and will decide whether the Reconstruction of the United States actually created a more perfect Union. Students will also explore early US foreign policy, as well as how that foreign policy plays out during the Cold War. Throughout the course students will compare and contrast the happenings of the past with the current news cycle. Students will also develop skills pertaining to source analysis, research, essay writing, argumentation, presenting both digitally and in person.

Text: *History Alive: Pursuing American Ideals*

Credits: 1.0 / year

Prerequisites: None

Grades: 10-12

World Geography 10-12 is a one year course which emphasizes the link between the human and physical environments. Firstly, students complete a study of a local environment (Darmstadt) and develop IB fieldwork skills, using a research question of their choosing. This is to guide and prepare students to be able to conduct research and develop higher-level thinking skills (hypothesis, analysis and synthesis). Practical research and analysis and an awareness of current global issues are addressed at various points throughout the course. Students also study the concept of POWER, using China as the context, investigating how China is playing a role in the construct of the new world. Unit 3 is aimed at Systems Thinking, with students using a toolkit of Systems Changes models to create an Impact Project. The IB requirement of Service Learning is embedded in the assessment for this unit. Through the study of Leisure and Tourism in Unit 4, students will develop their understanding of processes, places, power and geographical possibilities. They will additionally gain an

FIS Course Guide



understanding of more specialized concepts including consumption (of landscapes), carrying capacity and threshold (in relation to environmental stress) and sustainability (in relation to long-term management of touristic resources).

Text: *IGCSE Geography* by Gary Cambers

Credits: 1.0 / year

Prerequisites: None

Grades: 10-12

World History 10-12 is a one year course which begins with a study of Europe from the 16th to the 19th centuries. Students will look at the Reformation, rise of Absolutism, the challenge that the Enlightenment posed to authority and the emergence of Napoleon and Napoleonic Europe. The course focuses throughout the year on how the concepts of leadership, ideology and religion impacted the social, economic and political aspects of societies with reference to the consequences of the Industrial Revolution including a case study of the rise of Nationalism in Europe and the unification of Germany. Students will then study the rise, rule and fall of the Ottoman Empire. Focus will then turn to the study of China with the Manchu (Qing) Dynasty and look at the influence of China on the world and the growing impact of Imperialism on China and the wider world. Students will study Japan from the Tokugawa Shogunate to the Meiji Restoration and the modernization of Japan. The course concludes with the rise of New Imperialism. Emphasis is placed on the further development of compare/contrast skills, analysis and knowledge-based skills including essay writing and source analysis.

Text: *World History: Since 1500* by Duiker and Spielvogel

Credits: 1.0 / year

Prerequisites: None

Grades: 10-12

IB Business and Management SL/HL is a two year course designed to introduce students to how a business is set up and run and to prepare for an ever changing business world. In the course, students study five topics - Finance, Marketing, Human Resource Management, Operations and Management along with Business Organization and Environment. Students will learn the internal and external factors that influence decision making within an organization, with an increased focus on sustainable entrepreneurship and social enterprises. The course is studied via numerous real-life case studies and follows a concept-based approach with the course being structured around four concepts - Creativity, Change, Ethics and Sustainability. Numerous quantitative methods will also be studied via a Business Management Toolkit to help analyze business decisions.

Texts: *IB Business Management* by Malcolm Surridge and Andrew Gillespie

Credits: 1.0 / year

Prerequisites: None

Grades: 11-12

IB Economics SL is a two year course covering major topics in micro-, macro- and global economics. Students study the theoretical basis for the free market system through the use of graphical and statistical analysis, case studies of current events, and original research. The course is fully international, studying economies representative of the various countries of the world.

Texts: *DP Economics Course Companion 2020 Edition*, by Jocelyn Blink and Ian Dorton

Credits: 1.0 / year

Prerequisites: None

Grades: 11-12

IB Economics HL is a two year course covering major topics in micro-, macro- and global economics. Students study the theoretical basis for the free market system through the use of graphical and statistical analysis, case studies of current events, and original research. The course is fully international, studying economies representative of the various countries of the world. In addition to the SL material, the HL class covers extension topics in all areas of the syllabus in preparation for a calculations and policy paper.

Texts: *DP Economics Course Companion 2020 Edition* by Jocelyn Blink and Ian Dorton

Credits: 1.0 / year

Prerequisites: None

Grades: 11-12

IB Environmental Systems & Societies SL/HL is a two year course in which students develop an understanding of human attitudes to the environment and on the interrelationships between the natural environment and human activities. This course acknowledges the value of empirical, quantitative and objective data in describing and analyzing environmental systems. ESS will inform students about the wide range of pressing environmental issues they will inevitably come to face. Students will develop an understanding of the environment, rooted firmly in the underlying principles of science. Text: Kognity: IBDP Environmental Systems & Societies (digital platform)

Credits: 1.0 / year

Prerequisites: None/ This course may count for either Group 3 or Group 4 in the IB Diploma

Grades: 11-12

FIS Course Guide

24

IB Geography SL/HL is a two year course which embodies global and international awareness through looking at geographic perspectives and global change. It examines key global issues, such as the changing population, global climate and global resource consumption and security. Students will have a grasp of how the world works and gain knowledge of the physical world and the forces that shape the landscape and climate. Students will be able to demonstrate knowledge and understanding of spatial processes, patterns and interactions; and be able to recognize change at various scales and locations. All students will have an understanding of the reason for different levels of economic development.

Texts: *Geography for IB Diploma Program and IB Geography Course Companion* by Garrett Nagle and Briony Cooke

Credits: 1.0 / year

Prerequisites: None

Grades: 11-12

IB Global Politics SL/HL is a two year course covering major topics from the study of International Relations. The course explores fundamental political concepts such as Power, Human Rights, peace, conflict and development in a range of contexts. It allows students to develop an understanding of the local, national, international and global dimensions of political activity and processes, as well as to explore political issues affecting their own lives. The course helps students to understand abstract political concepts by grounding them in real-world examples and case studies. It also invites comparison between such examples and case studies to ensure a wider and transnational perspective. Throughout the course, issues such as

conflict, migration or climate change are explored through an explicitly political lens: "politics" provide a uniquely rich context in which to explore the relationship between people and power.

Texts: *Global Politics* by A. Heywood, *IB Global Politics by Fugil, Hirons & Hull*; *Global Politics for the IB Diploma Programme* by Chavez Fregoso, O'Shannassy & Anagnost; *IB Global Politics Course Companion* by Mooij, Dhesi & Nusseibeh

Credits: 1.0 / year

Prerequisites: None

Grades: 11-12

IB History SL/HL is a two year course that covers World History from the late nineteenth century through the twentieth century. Main themes include the causes and effects of wars and authoritarian states. The causes and effects of World Wars 1 and 2, the Russian and Chinese Revolutions are studied in depth. The emergence of fascism and Nazi Germany as well as the emergence of Mao and Communist China are examined in addition to the maintenance of these regimes. The causes and effects of the Chinese and Spanish Civil Wars as well as the Vietnam War are also studied. The Higher Level syllabus covers European history from the early nineteenth century through the beginning of the twentieth-century. Subjects may include the Unification of Germany and Germany under Bismarck; the Russian tsars 1855-1917 as well as the emergence and rule of Lenin.

Texts: *SL: Causes and Effects of 20th Century Wars*, by Andy Dailey and Sarah Webb; *Authoritarian States*, by Michael Lynch
HL: An Introduction to Nineteenth-Century European History, by

Alan Farmer; Russia 1855-1991: From Tsars to Commissars, by Peter Oxley

Credits: 1.0/ year

Prerequisites: None

Grades: 11-12

IB Psychology SL/HL is a two year course which offers students a unique opportunity to delve into one of the most dynamic of the modern sciences. Students will be introduced to a range of explanations for the diversity and complexity of human behavior including biological, socio-cultural and cognitive perspectives. Students will also explore two specific applied areas: Abnormal Psychology and The Psychology of Human Relationships. The Higher Level course also covers the following extension topics: Animal Models in research, The Digital World and its impact on Cognitive processes, and Globalization and its impact on behaviors.

Students will analyze and discuss empirical research and case studies related to these areas and examine quantitative and qualitative research methods used in obtaining data. For their Internal Assessment, students will apply this knowledge to their own experimental study, where they will develop and carry out a quantitative study, collect data, apply descriptive and inferential statistical tests and assess their findings.

Texts: *IB DP Psychology Course Companion and InThinking: Psychology* by John Crane

Credits: 1.0 / year

Prerequisites: None

Grades: 11-12

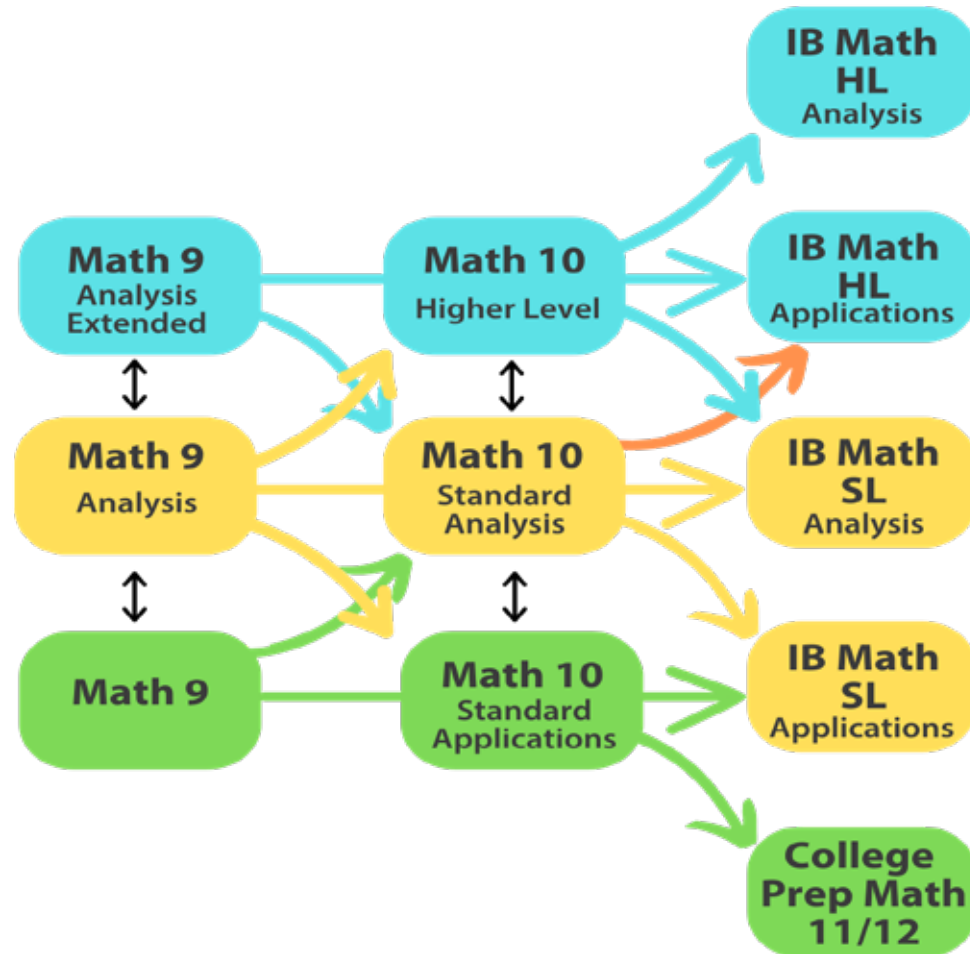
FIS Course Guide



Mathematics

Every Grade 9 student and every new student to FIS in Grades 10–12 is recommended to purchase the **Casio FX CG50** graphic display calculator, which will be used in class and for assessments throughout the Grades 9–12 math courses. This calculator is available for purchase at the FIS bookstore.

Here is the Math progression and options chart:



FIS Course Guide

26

Math 9 Foundation is a one year course emphasizing the basic algebra and geometry skills and conceptual knowledge, which are the basis for future mathematical studies. Topics of study include: coordinate geometry, area and volume, factoring and solving quadratic equations, introduction to function theory, right triangle trigonometry, sets, probability, and statistics. This course is designed for students who need additional time and practice to master the basic algebraic concepts first introduced in Grade 8.

Credits: 1.0 / year

Prerequisites: Math 8, teacher recommendation

Grades: 9

Math 9 Analysis and Applications is a one year course emphasizing the basic algebra and geometry skills and conceptual knowledge, which are the basis for future mathematical studies. Topics of study include: coordinate geometry, area and volume, factoring and solving quadratic equations, introduction to function theory, right triangle trigonometry, sets, probability, and statistics. This course is designed for students who have mastered the basic Algebraic concepts first introduced in Grade 8 and are ready for more challenging concepts and problems.

Credits: 1.0 / year

Prerequisites: Math 8 or Math 8 Extended, teacher recommendation

Grades: 9

Math 9 Analysis and Applications Extended is a one year course emphasizing the basic algebra and geometry skills and conceptual knowledge, which are the basis for future mathematical studies. Topics of study include: coordinate geometry, area and volume, factoring and solving quadratic equations, introduction to function theory, right triangle trigonometry, sets, probability, and statistics. This course is designed for students who have mastered the basic Algebraic concepts first introduced in Grade 8, who are enthusiastic about math, and who are ready for a faster pace with more challenging concepts and problems. Students in this course will be introduced to proof-based mathematics and the topics listed above will be extended, where appropriate, to challenge the class.

Credits: 1.0 / year

Prerequisites: Math 8 Extended, teacher recommendation

Grades: 9

Math 10 Standard Applications is a one year course designed to continue to develop their algebra and geometry skills and knowledge and they will gain increased exposure to using graphing calculators and software to further their understanding of functions. The main topics of study include: functions and transformations, trigonometry, inferential statistics, parabolas and quadratics, probability, and exponential functions. Students will develop their communication skills through a variety of in-class projects. Successful completion of this course will prepare students for the IB Mathematics Applications Standard Level course.

Credits: 1.0 / year

Prerequisites: Math 9 Foundation or Math 9 Analysis and Applications, teacher recommendation

Grades: 10

Math 10 Standard Analysis is a one year course for students with strong algebraic skills. Students will begin to study advanced trigonometry and pre-calculus topics while also continuing to develop their algebra and geometry skills and knowledge. The main topics of study include: trigonometry, functions and transformations, parabolas and quadratics, inferential statistics, trigonometric graphs and equations, polynomials and rational functions, and exponents and logarithms. Successful completion of this course will prepare students for the IB Mathematics Analysis Standard Level course.

Credits: 1.0 / year

Prerequisites: Math 9 Foundation or Math 9 Analysis and Applications, teacher recommendation

Grades: 10

Math 10 High is a one year course designed for students who have a very solid background in algebra and geometry and who enjoy the challenge of a fast-paced and rigorous mathematics course. Students will study proof methods, advanced trigonometry, and a variety of pre-calculus topics. The main topics of study include: trigonometry, functions and transformations, parabolas and quadratics, inferential statistics, trigonometric graphs and equations, polynomials and rational functions, and exponents and logarithms. Successful completion of this course will prepare students for either the IB Mathematics Analysis Higher Level or the IB Mathematics Applications Higher Level course.

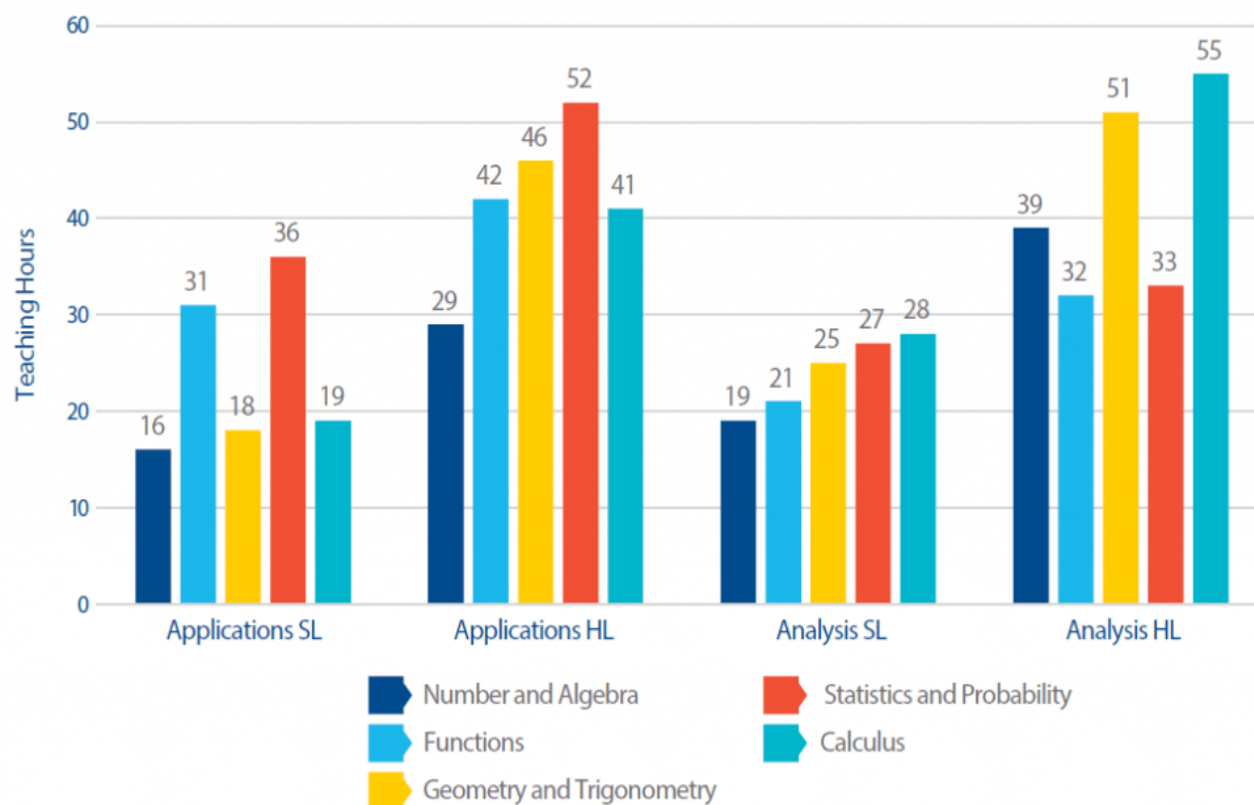
Credits: 1.0 / year

Prerequisites: Math 9 Analysis and Applications or Math 9 Analysis and Applications Extended, teacher recommendation

Grades: 10



Mathematics Subject Breakdown



College Prep Math is a one or two year course emphasizing the use of mathematics in our daily lives and careers, with a specific focus on preparing students for math requirements students will likely encounter for a wide range of possible university studies. Topics include: algebra, statistics, probability, financial math, mathematical modeling, functions and equations, and optional SAT/ACT preparation.

Credits: 1.0 / year

Prerequisites: Math 10 Standard Applications, teacher recommendation

Grades: 11–12

IB Mathematics: Analysis SL is a two year course including topics such as functions, trigonometry, and calculus, as well as topics amenable to investigation, conjecture and proof. This is seen in the study of sequences and series. The course allows the use of technology in relevant mathematical software and hand-held technology. There is a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments. Students should be comfortable in the manipulation of algebraic expressions, recognize patterns, and understand the mathematical generalization of these patterns.

The course will be taught with the focus being on: number and algebra, functions, geometry and trigonometry, statistics and probability, and calculus. Please see the chart above for a breakdown of each topic. This course is designed for someone interested in studying mathematics, engineering, physical sciences and economics.

Credits: 1.0 / year

Prerequisites: Math 10 Standard Analysis (Grade of 5+) and teacher recommendation

Grades: 11–12

IB Mathematics: Analysis HL is a two year course including topics such as functions, trigonometry, and calculus, as well as topics that are amenable to investigation, conjecture and proof. This is seen in the study of sequences and series, and proof by induction. The course allows the use of technology in relevant mathematical software and hand-held technology. There is a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments. Students should be comfortable in the manipulation of algebraic expressions, recognize patterns, and understand the mathematical generalization of these patterns. Students should have strong algebraic skills and the ability to understand simple proofs.

The course will be taught with the focus being on: number and algebra, functions, geometry and trigonometry, statistics and probability, and calculus. Please see the chart above for a breakdown of each topic. This course is designed for someone interested in studying mathematics, engineering, physical sciences and economics.

Credits: 1.0 / year

Prerequisites: Math 10 High (Grade of 5+) and teacher recommendation

Grades: 11–12

IB Mathematics: Applications SL is a two year course emphasizing the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modeling. This course includes topics to understand a firm base including calculus and statistics. The course makes extensive use of technology to allow students to explore and construct mathematical models. Students will develop mathematical thinking, often in the context of a practical problem and using technology to justify conjectures.

Students will use real-world contexts to solve real-world problems. The course will be taught with the focus being on: number and algebra, functions, geometry and trigonometry, statistics and probability, and calculus. Please see the chart above for a breakdown of each topic. This course is designed for students interested in social sciences, natural sciences, medicine, statistics, business, and some economics, psychology and design.

Credits: 1.0 / year

Prerequisites: Math 10 Standard Applications and teacher recommendation

Grades: 11–12

IB Mathematics: Applications HL is a two year course emphasizing the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modeling. This course includes topics to understand a firm base including calculus and statistics. The course makes extensive use of technology to allow students to explore and construct mathematical models. Students will develop mathematical thinking, often in the context of a practical problem and using technology to justify conjectures.

Students will use real-world contexts to solve real-world problems. Students should have good algebraic skills. The course will be taught with the focus being on: number and algebra, functions, geometry and trigonometry, statistics and probability, and calculus. Please see the chart above for a breakdown of each topic. This course is designed for students interested in social sciences, natural sciences, medicine, statistics, business, and some economics, psychology and design.

Credits: 1.0 / year

Prerequisites: Math 10 High (Grade of 5+) and teacher recommendation

Grades: 11–12

FIS Course Guide



Science

Astrophysics 10-12 is a one semester course. We will reinforce the concepts of intensity and conservation of energy as part of the introduction to the electromagnetic spectrum and astrophysics. It is an opportunity to model optics systems, build them, and test the predictions with measurements. Building on these models we move to intensity and how we receive and interpret information from space. From telescopes and satellites, and how we observe the universe, we move to stellar distances and the nature of stars and finally astrophysics. This course has no prerequisites and is designed to complement the Grade 10 physics semester course. It is perfect for students who want to dig deeper into physics, who want to understand more about the cosmos, or who are thinking of studying physics at a higher level. This course can be taken to satisfy the science graduation requirement.

Credits: 0.5 / semester

Prerequisites: none

Grade: 10-12

Biology 10-12 is a one semester course that allows students to explore the world of living things. In this one semester course students will explore 3 topics - Topic 1: Inheritance, Topic 2: Photosynthesis, macromolecules and cell respiration, and Topic 3: Cell division, body systems, and homeostasis. The course is built using the NGSS standards, centered around anchoring phenomena, promoting student inquiry and connections to real world science. Assessments for this course include lab reports, tests and research projects.

Credits: 0.5 / semester

Prerequisites: none

Grade: 10-12

Biology Experiments 10-12 is a one semester course. Students conduct a variety of Biological experiments in the topics of ecology, human physiology, food fermentation, animal physiology, and plant physiology. Students will learn to use a variety of lab techniques and materials and develop investigations using the tools. They will practice writing IB-style lab reports with a focus on skills and inquiry-based learning. This course can be taken to satisfy the science graduation requirement.

Credits: 0.5 / semester

Prerequisites: none

Grade: 10-12

Medical Biology 10-12 is a one semester course. Students will learn about the anatomy and physiology of human body systems using case studies, lab investigations, models, and medical literature. They will conduct independent investigations pertaining to each body system unit and present findings to their peers. This course can be taken to satisfy the science graduation requirement.

Credits: 0.5 / semester

Prerequisites: none

Grade: 10-12

Chemistry 9-12 is a one semester course that dives into the exciting world of chemical reactions and the properties of matter. Students will build their understanding of the fundamental concepts of chemistry, including atomic and molecular structure, chemical bonding and how chemical reactions proceed. Through lab experiments, students develop data analysis skills and develop models to explain chemical

phenomena. This course is built using NGSS standards, promoting student inquiry and connections to real world science. Assessments for this course include lab reports, tests and research projects.

Credits: 0.5 / semester

Prerequisites: none

Grade: 9, 11-12

Industrial Chemistry 10-12 is a one semester course that explores the scientific experiments that transformed our understanding of chemistry, from the Industrial Revolution to today, with a focus on the Rhine/Main chemical industry. Starting with test-tube-scale experiments, you will trace how key discoveries were scaled up to industrial processes, shaping industries from Höchst to Ludwigshafen. Alongside these innovations, we will examine the environmental consequences of industrial chemistry and the rise of "Green Chemistry" as a response to past mistakes. Through local case studies—mines, paper mills, dye works, and chemical plants—you will gain a historical perspective on the impact of industrial chemistry and the responsibilities of modern chemists in an era of global climate change.

This course can be taken to satisfy the science graduation requirement.

Credits: 0.5 / semester

Prerequisites: none

Grade: 10-12

Medicinal Chemistry 10-12 is a one semester course. Students will explore chemical ideas through the historical development of medicine, and the chemistry that explains these discoveries. Students will learn historical development of medicine using case studies supporting the stories with development of chemical ideas within a mathematical framework. This course can be taken to satisfy the science graduation requirement.

Credits: 0.5 / semester

Prerequisites: none

Grade: 10-12

Coding 9-12 is a one-year elective course where students will develop an understanding of computer science and computational problem-solving. Computer science and computational problem-solving are fundamental skills for engaging the 21st-century marketplace of ideas and economies. We believe that all students should have the opportunity to learn these skills, as they will use them in whatever career they are likely to enter. No prior programming experience is required. It is predicated on the notion that learning about programming and computer science should be fun and engaging. This requires interesting problems to solve, as computational problem-solving is the core of computer science.

Credits: 1.0 / year

Prerequisites: None

Grades: 9-12

Computer Technology Standard/ Advanced 9-12 is a one year course covering a variety of topics in Information Communication Technology (ICT), including: graphics editing, web-page construction, word-processing for mathematics and science documents, animation, digital video, basic programming, graphics in 3-D, hardware vocabulary and specifications, and ethical issues. Topics will be changed and/or added each year to keep pace with developments in the computer industry. Students learn to organize their time to improve productivity, as well as learn to assess their own progress and the quality of their products. This course is appropriate for students who have normal experience with IT tools (word-processing, web-browsing, e-mail, etc), and are interested in learning some more technical, challenging techniques. Students may enroll in either level (although students who took the grade 8 course should only enroll in Advanced) while students with more experience are encouraged to take Advanced. The difference is that the Advanced students will do more programming, while the Standard students will do more applications.

Credits: 1.0 / year

Prerequisites: None. "Beginners" and "experts" welcome

Grades: 9-12

Design Technology (Engineering I) 9 is a year-long course which meets three times per eight-day cycle. This problem-solving class focuses on real-world problems and challenges. Students will develop skills, knowledge and understanding of the design cycle and technologies in order to use information, materials, and processes to help devise practical solutions to design challenges. The fundamental components are grouped into six dimensions, (1) Empathize, (2) Define, (3) Ideate, (4) Develop, (5) Manufacture/ Action, and (6) Test & Evaluation. These dimensions are encountered in the design thinking cycle and used as the structure for each unit. Students will investigate a design context, materials, manufacturing process, tools and equipment before planning, producing and evaluating a solution. Essentially, DT is about learning how to adapt to new experiences and to approach problems with the appropriate skills and relevant techniques to identify the important elements and, crucially, to develop the optimum solution.

Credits: 0.5 / year

Prerequisites: None

Grades: 9

FIS Course Guide



Design Technology (Engineering II) 10–12 is a one year course designed to allow students to develop their design thinking / problem-solving skills. The course will be very 'hands-on' with each topic studied. Students will interact with a challenge, undertaking testing, interviews, surveying, to understand the problem. Semester one is a mixture of case studies, group work, focused practical tasks, projects and independent study. Students learn to master Fusion 360 to model complex design ideas, upskill their technical capabilities and practical understanding of 3D scanning and printing, laser cutting, Virtual Reality and traditional manufacturing techniques. In semester two, students work on an actual problem where they individually work with clients as they design and manufacture a proposed solution.

Credits: 1.0 / year

Prerequisites: None

Grades: 10–12

DT - Advanced Computer Aided Design 10-12: This semester-long course will allow students to extend their skills and capabilities with industry standards Computer Aided Design software, currently Autodesk Fusion 360. Possible design challenges could include Automotive, Product and Industrial Design. By the end of the course, students will have advanced skills that can be applied to any design situation. Students will develop a portfolio that will be assessed at the end of each topic.

Credits: 0.5 / year

Prerequisites: None

Grades: 10–12

Electromagnetism 10-12 is a one semester course designed to complement the grade 10 physics course. We will reinforce the concepts of efficiency and conservation of charge and energy as part of the introduction to electrical circuits and electromagnetism. It is an opportunity to model systems, build them, and test the predictions with measurements. Building on these models we move to the conservation of energy and charge to develop Kirchoff's Laws, and an understanding of electron energy levels in circuits. From circuit analysis, we move to resistance, the flow of current, and the magnetic field generated. Finally, the course moves on to electromagnetism and its applications. It would be especially useful for students who are thinking of studying physics at a higher level, as electrical circuits and electromagnetism are not covered in grades 6-9. This course can be taken to satisfy the science graduation requirement.

Credits: 0.5 / semester

Prerequisites: none

Grade: 10-12

Environmental Systems 9-12 is a one semester course that allows students to explore themes of stability and change within Earth's various systems. There are two units in this semester-long course and both are focused on using mathematical representations as evidence to support and revise explanations of various system changes. Students are asked to think about and make connections between the complex interactions within systems and the mechanisms that relate the cause and effect of a specific phenomena. This course is built using NGSS standards, promoting student inquiry and

connections to real world science. Assessments for this course include lab reports, tests and research projects.

Credits: 0.5 / semester

Prerequisites: none

Grade: 9, 11-12

Graphics Programming 10–12 is a one year course emphasizing programming as the primary computer tool, and graphics as the primary application area. Students learn to write programs in Java - for example, an animated video game, an educational quiz program, and a graphical screen-saver. They may also use Javascript to animate web-pages. They also learn to use some basic image manipulation tools, animation tools, and video editing software. Much of the assessment involves practical programming assignments, completed in class time with ample teacher assistance. This course is appropriate for students who already have a good set of basic IT skills and are interested in learning something more technical.

Credits: 1.0 / year

Prerequisites: None, but Computer Technology is helpful

Grades: 10–12

FIS Course Guide

32

Physics 10-12 is a one semester course. Students will learn about Nuclear Physics, including fusion in stars and the nuclear power debate and Mechanics, including motion and energy. The course is built using the NGSS standards, centered around anchoring phenomena, promoting student inquiry and connections to real world science. Assessments for this course include lab reports, concept checks, problem solving and research projects.

Credits: 0.5 / semester

Prerequisites: none

Grade: 10-12

Sports, Exercise and Health Science 10-12 is a one year course that takes scientific concepts from the traditional science disciplines, and seeks to understand and apply them through a movement, health or sporting context. Students in this course will explore the subject of Sports Science by taking part in a range of experimental investigations that answer interesting questions, most of which the students create themselves. Students work towards a longer term personal project that answers a unique question they also create. In addition, students analyze human performance and gain foundational knowledge in areas such as anatomy, physiology, nutrition and training.

Credits: 1.0 / year

Prerequisites: None

Grades: 10-12

IB Biology SL/HL is a two year course designed to help students understand living organisms and their environments. Students will develop their ability to analyze, evaluate and synthesize scientific information. The major topics studied are: Biochemistry, Cell Biology, Photosynthesis and Cell respiration, Ecology, Physiology, and Genetics. Students taking Higher Level will cover these topics in further depth.

Text: *Biology for the IB Diploma*

Credits: 1.0 / year

Prerequisites: Any general science course. Biology preferred

Grades: 11-12

IB Chemistry SL/HL is a two year course designed to help students develop a general understanding of the chemical principles that underpin the physical and living world and the ability to analyze, evaluate and synthesize scientific information. The topics studied are: Quantitative Chemistry, Atomic structure, Periodicity, Bonding, Energetics, Kinetics, Equilibrium, Acids and Bases, Oxidation and Reduction, Organic Chemistry, and Measurement and data processing. For students enrolled in HL, they will study in more depth additional topics in the areas of: Atomic structure, Periodicity, Bonding, Energetics, Kinetics, Equilibrium, Acids and Bases, and Oxidation and reduction.

Text: *Standard/Higher Level Chemistry for the IB Diploma, Pearson Baccalaureate*

Credits: 1.0 / year

Prerequisites: Any general science course. Chemistry preferred

Grades: 11-12

IB Computer Science SL/HL is a two year course in which students learn about topics including: programming in Java, constructing efficient algorithms, technical details and vocabulary about hardware and computer systems, binary arithmetic, problem-solving and system design, history and future of computers including artificial intelligence and simulations. The course thoroughly covers programming in the Java language and relates programming skills to a detailed understanding of technical vocabulary and hardware operations. Students develop problem-solving skills, as well as reliable and productive work habits. They learn to design and create computer systems to solve both academic exercises and real-world problems. Half of the assignments involve Java Programming. The assignments are done mostly in class, with teacher assistance, but some work must be done outside class time. The other half of the assessment involves written quizzes and tests, covering theoretical topics and vocabulary, as well as solving programming problems under test conditions.

Credits: 1.0 / year

Prerequisites: Any previous computing course. Graphics Programming preferred, especially for HL.

Grades: 11-12

FIS Course Guide



IB Design Technology SL/HL: Inquiry and problem-solving are at the core of IB Design Technology. The two year course emphasizes design thinking as a structured methodology for investigating challenges, developing feasible solutions, and testing and evaluating outcomes. Students independently create models, prototypes, products, or systems as part of their problem-solving process. The course is structured around three key areas: Design in Theory, Design in Practice, and Design in Context. Each area is explored through the lens of People, Process, Product, and Production, providing a comprehensive understanding of design and its impact. At the Higher Level (HL), students delve deeper into advanced topics, including complex mathematical calculations, structural, mechanical, and electronic systems, as well as manufacturing techniques and production strategies.

Credits: 1.0 / year

Prerequisites: Successful completion of a design technology-related course, preferred. At HL, due to the technical nature, advanced numeracy is required.

Grades: 11–12

IB Environmental Systems & Societies SL/HL is a two year course in which students develop an understanding of human attitudes to the environment and on the interrelationships between the natural environment and human activities. This course acknowledges the value of empirical, quantitative and objective data in describing and analyzing environmental systems. ESS will inform students about the wide range of pressing environmental issues they will inevitably come to face. Students will develop an understanding of the environment, rooted firmly in the underlying principles of science.

Text: *Kognity: IBDP Environmental Systems & Societies (digital platform)*

Credits: 1.0 / year

Prerequisites: None/ This course may count for either Group 3 or Group 4 in the IB Diploma

Grades: 11–12

IB Physics SL/HL is a two year course in which students will develop a general understanding of the physical world and the ability to analyze, evaluate and synthesize scientific information. The topics covered in the class include: space, time and motion, the particulate nature of matter, wave behavior, fields, nuclear and quantum physics. Students taking Higher Level will cover these topics in further depth.

Credits: 1.0 / year

Prerequisites: Any general science course. Physics preferred

Grades: 11–12

IB Sports, Exercise & Health Science SL/HL is a two year course which incorporates the traditional disciplines of anatomy and physiology, biomechanics, psychology and nutrition, which are studied in the context of sport, exercise and health. Students will cover a range of core and option topics including: anatomy, movement analysis, exercise physiology, energy systems, skill and psychology of sport, and evaluation of human performance. Students will carry out experimental investigations in both laboratory and field settings. This will provide an opportunity to acquire the knowledge and understanding necessary to apply scientific principles and critical analysis. Where relevant, the course will address issues of international dimension and ethics by considering sport, exercise and health relative to the individual and in a global context.

Text: *IB Sports, Exercise & Health Course Companion*

Credits: 1.0 / year

Prerequisites: None

Grades: 11–12

FIS Course Guide

34

Learning Support

Learning Support (LS) classes are available for students with diagnosed learning differences. In consultation with the LS department and student's family, a student may enroll in one of the following offerings.

Executive Functioning is designed to aid students with planning and organization of their workload or materials, addressing and monitoring behaviors and study habits, and offering specific subject support. This class is mainly driven by the students' individualized learning plan goals and, therefore, the students will work directly with the teacher to address their own strengths and weaknesses and formulate strategies to build their academic or social skills. The course is designed to help students improve their academic or social/behavioral skills, enabling them to access the mainstream curriculum and experience success both in and outside of the school context.

Credits: 1.0 / year

Classes per cycle: usually meets 6 out of 8 classes per cycle**

Prerequisites: Determined by Learning Support Team

Grades: 9-12

Grading: Pass or Fail Class

Reading and Writing focuses on individual needs that strengthen basic reading, comprehension, or writing skills. This class is mainly driven by the students' individualized learning plan goals and, therefore, some students might receive spelling and decoding support, while others might receive instruction to strengthen their reading comprehension skills. The course is designed to help students improve their literacy skills, enabling them to access the mainstream curriculum and experience success both in and outside of the school context.

Credits: 1.0 / year

Classes per cycle: usually meets 6 out of 8 classes per cycle**

Prerequisites: Determined by Learning Support Team

Grades: 9-12

Grading: Pass or Fail Class

Math Recovery is designed to aid students with math concepts including: problem solving, visual-spatial processing methods, mathematical tools, and mathematical fluency. The course can supplement elements of specific subject support. Students work directly with the teacher to address their own academic strengths and weaknesses and formulate strategies to build their academic skills. The teacher will individualize the support of each student by creating a learning intervention plan and develop activities that help develop academic skills.

Credits: 1.0 / year

Classes per cycle: usually meets 6 out of 8 classes per cycle**

Prerequisites: Determined by Learning Support Team

Grades: 9-12

Grading: Pass or Fail Class

Academic Coaching is offered to students who have a learning plan, have goals with minimal needs, and/or are not in a Learning Support class. The purpose is to provide executive functioning support, social/behavioral support, or academic skill development based on the students' goals. Academic Coaching could either be a 1:1 or small group session. Each session meets for 15-20 minutes at a time, where frequency is determined by need, but usually once per cycle during break or lunch. The coaching sessions are scheduled and attendance is required.

Credits: none

Prerequisites: Determined by Learning Support Team

Grades: 9-12

Grading: None

***The frequency in classes is subject to potentially change as determined by the Learning Support Team and the needs of the student.*



Other Courses

Athlete Academy is a year-long course which meets three times per eight-day cycle. This course is to prepare high potential FIS athletes for the increasing mental and physical demands of high performance sport activities at and beyond FIS. The Academy sessions involve theory and practical sessions aimed to improve performance. The goals are to: utilize smart, structured and fun training sessions that develop athletic performance, reduce potential injury, and develop committed and independent leaders who take responsibility for their own training and performance.

Credits: 0.5 / year

Prerequisites: An application is required to determine an athlete's commitment to improving all aspects of performance. Athletes should be active in sport(s) throughout the academic year.

Grades: 9

Balance 9 is a year-long course which meets three times per eight-day cycle. This course focuses on students' taking personal action to improve their health, well-being and balance. The objectives include: enriching knowledge and understanding of health/balance/wellness topics for self and/or others; practicing specific health/balance/wellness skills (i.e. meal planning and preparation, mindfulness, developing tracking methods, time management); identification, goal setting, planning and reflection on personal health/balance/wellness areas for growth; and committing to action on a variety of personal health/balance/wellness areas. Towards the end of the course, students will develop a personalized health and balance plan focusing on at least one area of health and

wellbeing. Students will have the freedom to decide what, where and how they want to improve their health.

Credits: 0.5 / year

Prerequisites: None

Grades: 9

Physical Education (PE) 9 is a balanced Physical Education program that covers areas such as Games, Physical Health and Wellbeing, Individual Experience, Movement Composition and ATL skills. It aims to develop the whole student by providing a diverse range of experiences with plenty of choice and personalisation. The focus of this course builds competence, confidence, autonomy and love for movement.

Credits: 0.5 / year

Prerequisites: None

Grades: 9

Physical Education (PE) and Balance 10 focuses on helping students become a master of their own health. It aims to help students develop a real understanding of their own health and balance and to build sustainable skills that allow them to adapt and maintain their wellbeing as they transition into the IB and beyond. It is built on 5 foundational pillars: Eat, Sleep, Relax, Move and You which are crucial to understanding health, preventing ill-health, and addressing health when it goes astray. Students are offered plenty of choice as to what units they take both inside and outside of the classroom, with the hope they choose topics they like and that are important to them and their own health.

Credits: 1.0 / year

Prerequisites: None

Grades: 10

Design for Change Studio uses [design thinking methodology](#) and a [studio work structure](#) to create collaborative solutions to authentic problems. The course runs more like a start-up business than a classroom. Each studio lasts about 2 months and focuses on a specific challenge taken from the local community to connect with the broader world. Whenever possible, the studio topics will have a social justice focus. Possible topics include: climate change, happiness, world hunger, plastic pollution, and other topics the students will choose. Students learn by doing and are expected to be very proactive in determining the scope and sequence of our work.

Credits: 1.0 / year

Prerequisites: None

Grades: 9-10

IBDP Theory of Knowledge (TOK) is a two year course that lies at the core of the IB Diploma Programme (IBDP). It is a mandatory component of the IBDP, but can also be selected as a discrete Certificate course. Primarily delivered through discussion and inquiry, it encourages students to reflect upon the nature of knowledge, and on how we can know what we claim to know, across the disciplines studied in other parts of the Programme. TOK is finally assessed through an exhibition at the end of grade 11 and a 1600-word essay in grade 12. Text: Students will have access to a wide variety of materials over the course of the two years, although no specific text is mandated.

Credit: 1.0 / 2 years

Grades: 11-12

FIS Course Guide

36

Global Online Academy is an opportunity to pursue a course not offered at FIS. As a member of this online community, FIS will support students who are independent and self guided learners. Each semester-long class is offered online with a group of students from around the world led by a teacher specializing in that subject. Students interested in this opportunity should talk with their counselor to inquire about course offerings and availability.

Credits: 0.5 / semester

Prerequisites: Counselor and GOA Coordinator approval

Grades: 9-12

Matrix of IB Prerequisites for Universities in most popular destinations (please see chart on next page)

This matrix contains guidelines as a **starting point** for course considerations, often with the more selective university requirements in mind. Please note that requirements can vary by course and institution and there are a wide range of countries and subjects not listed here, many of which have no specific IBDP prerequisites. As entry requirements can vary and change, this information cannot be taken as definitive and should be used as a guideline only. **It is essential that students conduct their own research to ensure their course combination meets their needs.**

***For Germany / Switzerland:** Please note that a specific recognition of the IB Diploma for German university entry is required as noted in this course guide. Course recommendations here are provided as suggestions to improve foundational knowledge. Proof of German language proficiency may be required. Switzerland also has [specific IB course requirements](#) for university admission eligibility.

For all other countries IB recognition please see the IBO's "[find countries and universities that recognize the IB](#)". Please note that certain universities and programs might have additional requirements.

FIS Course Guide



	Germany*	Netherlands	United Kingdom	United States	Canada
Architecture (may require portfolio, interview or exam)	recommend HL Design Technology or Visual Arts, HL Math	recommend HL Design Technology or HL Visual Arts for portfolio, strongly recommend HL Math (generally required)	recommend HL Design Technology or HL Visual Arts for portfolio; HL Math or HL Physics commonly required	recommend HL Design Technology or HL Visual Arts for portfolio, recommend HL Math and/or Physics	recommend HL Design Technology or HL Visual Arts for portfolio, Physics and Chemistry at HL/SL and Math HL or SL Analysis; recommend two Sciences (may be required)
Art & Design, Performing Arts (may require portfolio or audition)	recommend relevant Arts course at HL	recommend relevant Arts course at HL	strongly recommend relevant Arts course at HL (can be required)	recommend relevant Arts course at HL	recommend relevant Arts course at HL
Business/ Commerce (IB Business Management not required)	recommend HL Business Management or HL Economics	recommend HL Business Management or HL Economics, strongly recommend SL/ HL Math Analysis or HL Math Applications (generally required)	recommend HL Business Management or HL Economics, SL Math Analysis or some HL Math for selective programs	recommend HL Business Management or HL Economics, HL Math for most selective programs	recommend HL Business Management or HL Economics, strongly recommend SL/ HL Math Analysis or HL Applications (generally required)
Economics	recommend HL Economics, and HL Math	recommend HL Economics, strongly recommend SL/HL Math Analysis or HL Math Applications (generally required)	recommend HL Economics, HL Math for selective programs	recommend HL Economics	recommend HL Economics, recommend SL/HL Math Analysis or HL Math Applications (sometimes required)
Computer Science (IB Computer Science not required)	recommend HL Math Analysis and HL Computer Science	most require HL Math Analysis; HL Computer Science recommended	recommend HL Math Analysis and HL Computer Science	recommend HL Math Analysis and HL Computer Science	BSc: require SL/HL Math Analysis or HL Math Applications and at least one (though likely two) of the three following science courses at SL/HL: Biology, Chemistry, Physics BA: recommend SL/HL Math Analysis or HL Applications and HL Computer Science
Engineering	recommend HL Physics, strongly recommend HL Math, preferably Analysis	recommend HL Physics, strongly recommend HL Math, preferably Analysis (generally required)	recommend HL Physics, strongly recommend HL Math, preferably Analysis (generally required)	recommend HL Physics, strongly recommend another Group 4 at SL/HL, and strongly recommend HL Math, preferably Analysis	recommend HL Physics, strongly recommend SL/HL Chemistry, and SL/HL Math Analysis or HL Math Applications
English Literature	recommend English A course at HL	recommend English A course at HL	recommend English A course at HL	recommend English A course at HL	recommend English A course at HL
Humanities/ Bachelor of Arts (BA)	recommend relevant Individuals & Societies or Language A course at HL if offered	recommend relevant Individuals & Societies or Language A course at HL if offered	recommend relevant Individuals & Societies or Language A course at HL if offered	recommend relevant Individuals & Societies or Language A course at HL if offered	recommend relevant Individuals & Societies or Language A course at HL if offered
Social Sciences	recommend relevant Individuals & Societies course at HL if offered	recommend relevant Individuals & Societies course at HL if offered	recommend relevant Individuals & Societies course at HL if offered (a BSc may require Math SL/HL Analysis or HL Applications)	recommend relevant Individuals & Societies course at HL if offered	recommend relevant Individuals & Societies course at HL if offered (a BSc may require Math SL/HL Analysis or HL Applications)
Science	recommend two Sciences at HL, Math HL recommended	recommend two Sciences at HL, SL/HL Math Analysis or HL Applications, depending on Science chosen	recommend two Sciences at HL, SL/HL Math Analysis or HL Applications, depending on Science chosen	recommend two Sciences at HL	strongly recommend two Sciences at HL (generally required), SL/HL Math Analysis or HL Applications, depending on Science chosen
Law	recommend History, Global Politics or other essay based subject at HL	recommend at least one essay-based subject at HL (Lang/Lit, Literature, Economics, History, Global Politics)	recommend at least 1 essay-based subject at HL (Lang/Lit, Literature, Economics, History, Global Politics)	not available as undergraduate option	not available as undergraduate option
Medicine	recommend 2 Sciences at HL, preferably Chemistry and Biology, available for German instruction only	3 Sciences generally required	strongly recommend HL Chemistry and 1 other HL Science, preferably HL Biology (2 Sciences at HL generally required)	not available as undergraduate option	not available as undergraduate option
Psychology (IB Psychology not required)	recommend HL Psychology	recommend HL Psychology (strongly recommend SL/HL Math Analysis or HL Applications (generally required) for a BSc)	recommend HL Psychology, HL Math (either), or HL Biology, Chemistry, Physics. A few highly selective programs prefer two of the above courses.	recommend HL Psychology	recommend HL Psychology (a BSc may require two lab sciences and SL/HL Math Analysis or HL Applications -- BAs rarely have specific Math requirements)
More info:	www.daad.de	www.studyinholland.nl	www.ucas.com	bigfuture.collegeboard.org	www.studyincanada.com

