



**BRANKSOME
HALL ASIA**

INTERNATIONAL SCHOOL FOR GIRLS

Grade 10 Course Selection Guide 2016-17

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Letter from the Head of Academics

Dear Parents and Grade 10 Students,

We are very pleased to inform you that our 2016-2017 Grade 10 Course of Study is now complete. In addition to English, Korean, Korean History, and mathematics, we offer our Grade 10 students choice within their humanities, sciences, arts and design courses. These courses are designed to allow our Grade 10 students to pursue their interests and deepen their learning. In addition, the new courses are designed to support and further prepare our students for their Diploma Program.

To help with Grade 10 course selection, the following information booklet provides you with a brief introduction to the International Baccalaureate Diploma Program (Grade 11 and 12) and information related to course offerings in the 2016-2017 Grade 10 course of study. To help students make informed choices for their Grade 10 course of studies we invite parents together with their daughters to carefully review the Diploma Program information pages and the course descriptions prior to making their course selection.

The humanities, sciences, arts, and design course offerings include the following:

Every Grade 10 student will select:

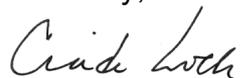
- **Two** humanities courses (selected from Business Management, Economics, Geography, and History) that will be studied for **one semester** each
- **Two** science courses (selected from Biology, Chemistry, Physics, Sports Exercise Health Science) that will be studied for **one year** each
- **Two** arts or design courses (selected from Drama, Music, Visual Arts, Digital Design, and Product Design) that will be taken for **one year** each.

If you have any questions about your daughter's course selection for Grade 10 or for the Diploma Program, please contact Dr. Lock (cindelock@branksome.asia). University or careers related questions should be directed to Ms. Lee (jessicalee@branksome.asia).

Course selections are due by Wednesday, February 24th and are submitted with a hard copy of the course selection form given to Dr. Lock.

I appreciate your continued partnership in the planning and support of your daughter's middle and senior school education.

Sincerely,



Dr. Cinde L Lock
Head of Academics, Middle and Senior School

Introduction to the Diploma Program

An important part of the Grade 10 course selection process is an awareness of the course offerings of the Diploma Program.

The IB Diploma Program provides a rigorous academic experience for students in their grade 11 and 12 years that prepares them for success in university and beyond.

Students take courses from six separate Groups.

In 2016-17, the following choices will be offered to Grade 11 students:



Group 1: Studies in Language and Literature

- Chinese: Language and Literature
- English: Language and Literature
- Korean: Language and Literature

Group 2: Language Acquisition

- English B
- Korean B
- Chinese ab Initio

Group 3: Individuals and Societies

- Business Management
- Economics
- Environmental Systems & Societies
- Geography
- History

Group 4: Sciences

- Biology
- Chemistry
- Design Technology
- Environmental Systems & Societies
- Physics

Group 5: Mathematics

- Math HL
- Math SL
- Math Studies

Group 6: The Arts/Elective

- Music
- Theater
- Visual Arts
- Film
- Computer Science
- Or one other course from Groups 1 to 5

Three of the six courses are taken at Higher Level (HL) and three are taken at Standard Level (SL). HL courses require 240 hours of study while SL courses are 150 hours in length.

At the core of the Diploma are CAS, TOK and the Extended Essay.

In **Creativity, Action and Service (CAS)**, students are expected to complete a total of 150 hours of Creativity, Action and Service over their two years in IB. These activities help students develop self-confidence, initiative, responsibility, concern for others and the ability to work cooperatively with other people. They also provide an important balance to the academic requirements of the program.

The **Theory of Knowledge (TOK)** course is a course designed to teach students to think critically about what they are learning and to appreciate other cultural perspectives. Students complete an essay that is externally moderated as part of their evaluation in this course.

Students will write an **Extended Essay**, a formal research paper, on a topic of their choosing from within the areas of study offered by the IBO. The 4000-word paper will be externally moderated. Together with the TOK essay, the Extended Essay may account for an additional 3 bonus points toward the completion of the IB Diploma.

Assessment

Like the MYP, each of the DP courses is evaluated on a scale from 1–7, with 7 being the highest obtainable mark. To receive the Diploma of the International Baccalaureate, students must achieve a total score of 24 points over the six courses (an average of 4 per course). In addition, students must complete requirements of the CAS program, TOK course, and Extended Essay. The maximum number of points available to a student is 45, which includes a possible 3 bonus points from the Extended Essay and TOK course. A hard-working, organized and self-motivated student is expected to achieve a minimum of 24 points.

While most of the mark a student receives is derived from externally marked exams, teachers also internally mark students on lab work, oral commentaries and day-to-day course work.

Grade 10 Course Selection

Students in Grade 10 should give consideration to what courses they think they might take in the Diploma Program and ensure they take the relevant Grade 10 course.

For example, a student looking to take DP History, Chemistry, and Visual Arts should ensure that they take Grade 10 History, Chemistry, and Visual Arts. **In order to take an HL course in Grade 11, the student must take the Grade 10 pre-requisite and achieve a 5 in that course.**

On the following page, you will find guidance provided to Diploma Program candidates on what courses they should take in the DP if they are interested in a particular university degree or career.

University Guidance

The breadth of the IBDP curriculum allows you to keep many options open. At the same time, university systems in different parts of the world may have very specific entry requirements, which vary from country to country. The following general guidelines are a starting point but requirements for specific programs can vary and therefore it is essential that students conduct their own research to ensure their IB subject selection meets their needs.

University Degree or Career	Suggested subjects at IB Higher Level (Mandatory combinations are bolded)
Accounting	Math; Business Management; Economics
Advertising and Marketing	Business Management, Economics, Geography or History; Visual Arts; Design Technology
Actuarial Work	Math
Administration, the Civil Service, etc.	Language and Literature; History, Economics, or Geography
Agriculture, Agricultural research, Land Surveyor	Biology, Chemistry, and/or Physics; Math; Geography
Architecture	Math; Physics, Design Technology; Visual Arts
Banking, Finance, Insurance	Business Management, Economics; Math; Physics
Business Studies	Math; Economics, Business Management
Chemistry	Math; Chemistry , Physics, or Biology
Chemical Engineering	Math; Chemistry , Physics
Classics, Archaeology, Oriental Languages	English A; History
Computer Science, Statistics	Math; Physics, Computer Science
Creative Writing	Language and Literature; History; Theatre
Design	Design Technology, Physics (engineering); Math; Visual Arts
Engineering	Physics ; Math , Design Technology, Economics
English	English A ; History
Film, Video and Photographic Arts	Visual Arts; Film; Language and Literature
Fine and Studio Art	Visual Arts ; Language and Literature
Geography (art emphasis)	Geography , History, Economics; Language and Literature
Geography (science emphasis)	Geography ; Math; Physics, Biology, Chemistry
Geology	Geography; Two of Chemistry, Physics, Biology
History, Anthropology	History , Economics; Language and Literature
History of Art	Visual Arts; History; English A
International Relations, Politics	History, Economics, Geography; Language and Literature
Law	No specific requirements. History, Economics, Math, English A are useful
Management Studies	Business Management; Math; Economics
Materials Science, Metallurgy	Chemistry , Physics, Design Technology; Math
Math	Math ; Physics and a second science
Media and Communication Studies, Journalism	Language and Literature; Film
Medicine, Veterinary Science, Dentistry	Biology , Chemistry or Physics; Math
Modern Languages	Language and Literature ; History
Music	Music
Natural Sciences	Math ; two of Chemistry , Physics , Biology
Pharmacy	Chemistry , Biology
Physics, Applied Physics, Mathematical Physics	Math , Physics , and a second science
Psychology	Psychology; Biology
Teaching and Education	English A
Theatre	Theatre , Film Studies; Language and Literature
Town and Country Planning	Geography , Economics; Design Technology, Physics

Course Descriptions

Arts and Design

Students in Grade 10 will select **two courses** from the **five choices** below and will take each course for **one year**.

Design

MYP Design involves the application of practical and creative thinking skills to solve design problems. It aims to develop an awareness of our responsibilities when making design decisions and taking action. Design is offered through two disciplines that share the design cycle and common assessment objectives.

At Branksome we offer two distinct design courses:

Digital Design

The Grade 10 Digital Design course prepares students for the future study of Computer Science. This course will involve students in using the Design Cycle to create interactive websites and learn the fundamentals of computer programming and control through the creation of software products.

Product Design

The Grade 10 Product Design course is a pre-requisite to the study of Design Technology in the IB Diploma Program. In this course, students use the design cycle to solve problems through the use of tools, materials and CAD CAM systems. The study of product design equips students to manipulate a variety of materials to create products/solutions to solve a problem and meet a need. The product design course will be focused on creating three-dimensional (3D) solutions made using computer-aided manufacturing techniques. You will learn to use 2D Design and Solidworks 3D Software.

Students will need to choose between Digital and Product Design. Both subjects lead to further study at Diploma and provide a strong subject combination with Visual Arts.

Drama

The Grade 10 Drama course introduces and successfully prepares students, in an MYP context, for the rigors and demands of the IB Theatre Diploma course. Students build and develop skills to prepare for successful completion of the final two years of their IB education. Students make theatre as creators, designers, directors, and performers. They learn how to apply research and theory to inform and contextualize their work.

In Grade 10 drama, students work individually and collaboratively. They take part in researching, creating, preparing, presenting, and critically reflecting on theatre — as participants and audience members — they gain a rich understanding of themselves, their artistic and communicative potential, and the role that art plays in



shaping a better world. Students are required to record and reflect on their learning and progress throughout the course in a 'Process Journal'. The Grade 10 Drama course is a challenging but also an extremely rewarding program.

Music

Students who select Music as a course of study in Grade 10 will have the opportunity to develop their music knowledge, abilities and skills. It is essential that students have fluency in the reading of musical notation and is competent on at least one musical instrument. Through the study of aural perception, theory, composition and arrangement, cultural and historical analysis, and performance, students refine and develop their musicianship, and engage in learning that develops music literacy and cultural awareness. These are preparatory skills for IB Music Diploma.

Course topics include:

- Jazz and blues / Improvisation
- Song writing / vocal training
- Music for the stage – Dance Music including salsa, rumba, waltz, hip-hop, tango, and merengue are all part of this unit.
- Music History and Stylistic impact on Performance with a slant on Music Technology.

Visual Arts

The Grade 10 Visual Arts course centers on extending students' understanding of different artistic knowledge, skills and techniques. This will be attained through exploring and communicating artistic intention through both a practical and annotated inquiry of artworks from various cultures.

Students are required to keep a process journal that documents their class tasks, experiments, processes, research and ongoing reflections and evaluations of their artistic development.

Course topics include:

- Digital photography
- Painting
- Sculpture
- Printmaking
- Drawing
- Multimedia

Humanities

Students in Grade 10 will select **two courses** from the **four choices** below and will take each course for **one semester**.

Business Studies

Grade 10 Business Studies provides an introduction to the business environment followed by a focus on two business functions: marketing and finance. Students will discover the purpose of a business and its stakeholders followed by the role of marketing and the important marketing strategies used to create customers. The course concludes by examining how various stakeholders use the financial accounts prepared by businesses to aid decision-making. Students will continually develop analytical and critical thinking skills necessary to become an entrepreneur or successful business figure.

Economics

The Grade 10 Economics course will introduce students to basic economic concepts, models, and systems. The course will investigate important economic fundamentals such as choice, opportunity cost, scarcity, economic growth and development. The course will also introduce and consider the basic role and relationships of market forces (supply and demand), cost and price, production and consumption, and the role of government in an economy.

Geography

Grade 10 Geography will present four topics to students: mapping & cultural diffusion, political geography and sense of place. Students will examine cultural diffusion throughout the world and participate in a field study in Jeju-si in order to see different types of cultural diffusion first hand. The second unit will compare and contrast political systems and how the shapes of countries can determine how they interact. The second unit will culminate in a Socratic Seminar regarding the recognition of controversial countries as actual states. The third unit will introduce the concept of sense of place to students. While studying this concept, students will be reading *The Geography of Bliss* by Eric Weiner and determine if he has in fact developed a sense of place for all of the countries that he visited on his quest for happiness. Throughout the semester students will continually develop valuable DP level skills such as debate, investigation, synthesis, evaluation, data collection and resource analysis. This course is recommended for those that like to follow current events, enjoy discussions and are comfortable sharing their opinion with others.

History

The Grade 10 History course will begin with a focus on the concept of 'imperialism', through examining the period of 19th century imperial expansion in Africa and Asia, and the tensions this caused in Europe. This unit will be followed by an in depth look at the causes, practices and effects of World War II. In this final unit, students will focus on the concept of 'total war' in relation to World War II. During the course, students will be introduced to DP level skills including historical essay writing, investigating and source analysis of both primary and secondary sources.

Sciences

Students in Grade 10 will select **two courses** from the **four choices** below and will take each course for **one full year**.

Biology

Grade 10 Biology centers on developing proficiency in scientific processes and techniques through the investigation of biology. This will be a laboratory intensive course that offers the opportunity to develop inquiry skills including designing experiments, collecting and analyzing data, and making conclusions. If you are interested in studying living things and enjoy doing lab work then consider taking biology.

Course topics include:

- Cells
- Genetics
- Ecology
- Human Physiology & Health

Chemistry

The periodic table of elements is at the heart of chemistry. In Grade 10 we study how elements combine to make compounds and how these elements and compounds react together in different ways, the faster reactions being very thrilling to observe. From the basics of atomic structure to the complexities of chemical reactions and their stoichiometric analysis, both inorganic and organic, the Grade 10 course offers a practical approach to understanding key concepts in the DP chemistry course.

Course topics include:

- Atomic theory
- Bonding models (ionic, metallic and covalent)
- Mole theory
- Chemical reactions
- Rates of reaction
- Energy changes during chemical reactions
- Organic chemistry

Physics

Physics attempts to understand all physical phenomena: from the smallest particle, to the entire universe. The language of physics is mathematics and students will be required to manipulate formulas, equations, and graphs. Throughout the course students will develop practical skills by performing investigations on key concepts. Students who enjoy building things, using mathematics, and learning how the physical world works, should consider taking physics.

Course topics include:

- Motion
- Forces and Energy
- Electricity and Electromagnetism
- Waves
- Medical Physics

PE/Sports Exercise Health Science

This course centers on the science of human performance. Students will investigate the application of scientific concepts to sport and exercise. In addition to participating in a variety of sports, students will develop inquiry skills where they design and conduct experiments on aspects of human performance. If you are interested in sport performance, physical activity or studying and applying science to authentic contexts, this course is for you.

Course topics include:

- Physiology (Fitness)
- Biomechanics & Anatomy
- Sport Psychology
- Skill Acquisition
- Fitness Training and Nutrition

Mathematics

Students in Grade 10 will select **one course** from the **two choices** below and will take this mathematics course for **one full year**.

Standard Mathematics

Grade 10 Standard Mathematics aims to give all students a sound knowledge of basic mathematical principles while allowing them to develop the skills needed to meet the objectives of MYP Mathematics. Standard Mathematics would prepare students adequately for Mathematics SL or Mathematics Studies in the Diploma Program.

Course topics include:

- Polynomial Functions
- Logarithms
- Trigonometry
- Periodic Functions
- Statistics
- Probability
- Sequences and Series
- Perimeter and Area of 2 Dimensional Shapes
- Surface Area and Volume of 3 Dimensional Shapes

Extended Mathematics

Grade 10 Extended Mathematics consists of most of the standard mathematics topics supplemented by additional topics and skills. This level provides the depth and complexity of problem solving for students looking for a higher level of mathematical challenge in their program. Topics will be addressed from a rigorous standpoint with the goal of preparing students for Mathematics HL or Mathematics SL in the Diploma Program. A recommendation from your mathematics teacher is required to be considered for admission into this course.

Course topics include:

- Polynomial Functions and Modeling
- Logarithms and Logarithmic Functions and Modeling
- Periodic Functions and Modeling

- Analytical Trigonometry
- Function Transformations
- Probability, including Permutations and Combinations
- Sequences and Binomial Expansions
- Complex Numbers
- Vectors, Reasoning and Proof



**Grade 10 Course Selection Form
2016 – 2017**

Student Name: _____

Date: _____

ID Number: _____

Advisory: _____

Arts / Design – Students select two arts/design courses and take each one for a full year. Choices include: Drama, Product Design, Digital Design, Visual Arts, and Music.

1st Choice: _____

2nd Choice: _____

Individuals and Societies – Students select two humanities courses and take each one for one semester. Choices include: Geography, Business, Economics, and History.

1st Choice: _____

2nd Choice: _____

Sciences - Students select two science courses and take each one for a full year. Choices include: Biology, Chemistry, Physics, or PE/Sports Exercise Health Science

1st Choice: _____ (Chemistry or Biology)

2nd Choice: _____ (Chemistry, Biology, PE/Sports Exercise, or Physics)

Mathematics – Students select one math course and take it for a full year. Choices include: Extended or Standard Mathematics.

1st Choice: _____

2nd Choice: _____

Student Signature

Parent Signature