

# KAUNAS JESUIT HIGH SCHOOL



**International Baccalaureate®**

**(IB) Diploma Programme**

**Courses**

**2022-2023**



## MISSION OF KAUNAS JESUIT HIGH SCHOOL

*Ad maiora natus sum*



Kaunas Jesuit High School while creating a Christian community on the basis of Jesuit Education aims to develop a creative, responsible and well educated person, a citizen of a democratic country, who devotes his/her talents to the service of God and the society and strives for social justice.

## IBO MISSION STATEMENT

The International Baccalaureate Organization (IBO) was established in 1968 in Geneva. Kaunas Jesuit High School is aiming to implement Diploma Programme which is designed for 11-12 formers.

IBO programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right. Therefore, a strong emphasis is places on **IB Learner Profile to develop internationally minded people who are striving to become:**



**Inquirers** We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.

**Knowledgeable** We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.

**Thinkers** We use critical and creative thinking skills to analyze and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.

**Communicators** We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.

**Principled** We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility of other individuals and groups.

**Open-Minded** We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.

**Caring** We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.

**Risk-Takers** We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.

**Balanced** We understand the importance of balancing different aspects of our lives - intellectual, physical, and emotional - to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.

**Reflective** We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.



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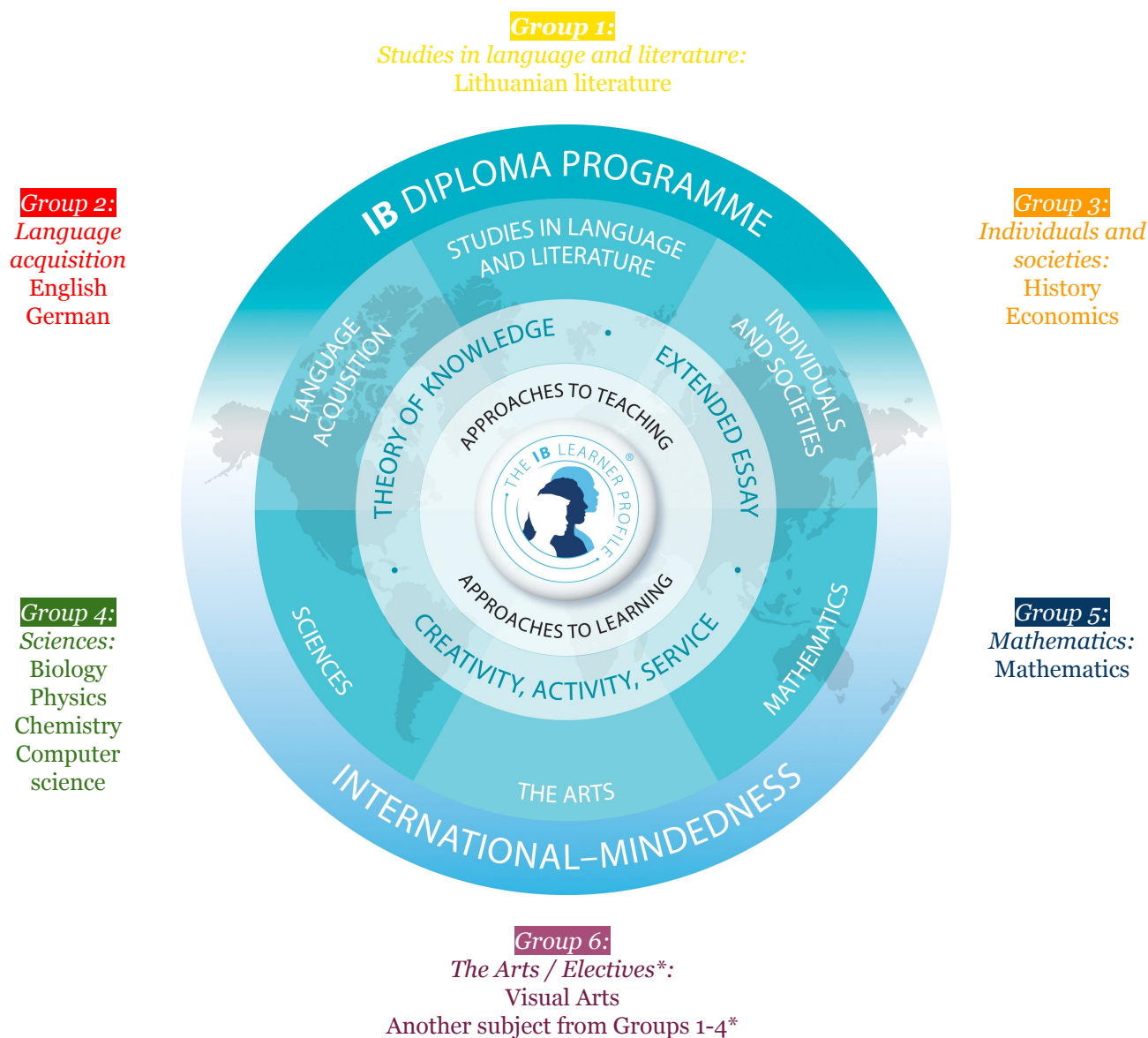
ADMISSION PROCEDURE 2019

IB DIPLOMA PROGRAMME STUDENT CURRICULUM



## DIPLOMA PROGRAMME CURRICULUM

IB DP core of the curriculum model consists of three components. The curriculum is modelled by a circle with six academic areas surrounding the three core requirements.



Over the two-year programme course, students:

- ❖ study six subjects chosen from the six subject groups;
- ❖ complete an extended essay;
- ❖ follow a Theory of Knowledge Course (TOK);
- ❖ participate in the process of creativity, action and service (CAS).

The students are expected to study:

- ❖ three of the six subjects at Higher Level (HL) (courses representing 240 teaching hours);
- ❖ the remaining three subjects at Standard Level (SL) (courses representing 150 teaching hours).

## DIPLOMA PROGRAMME COMPLETION REQUIREMENTS

All the course subjects are taught in the English language except for Lithuanian literature and foreign language courses.

### Extended Essay

Extended Essay (EE) is a piece of work written by a student, the length of which is 4,000 words. In EE students are expected to:

- ❖ show their abilities to investigate individually a topic taken from one of the student's six DP subjects;
- ❖ demonstrate high-level research and intellectual discovery in approximately 40 hours of work;
- ❖ with the help of a supervisor (who is one of the teachers) complete his/her ideas.

### Theory of Knowledge (TOK)

The purpose of TOK course is:

- ❖ to develop a coherent approach to learning that expands the academic areas and encourages appreciation of other cultural perspectives;
- ❖ to encourage students to reflect on the huge cultural shifts worldwide, the knowledge of their own culture and the influence of digital revolution;
- ❖ to promote individual critical thinking about knowledge itself and help students make sense of what they encounter;
- ❖ to enrich or deepen understanding of various spheres of life;
- ❖ to encourage students to share ideas with each other and express their views on knowledge.

### Creativity, action, service (CAS)

CAS aims:

- ❖ to involve students in a range of activities developed during their academic studies throughout the IB Diploma Programme;
- ❖ to engage students in creative thinking;
- ❖ to encourage students to take part in arts and other experiences;
- ❖ to complement students' academic work with physical exertion contributing to a healthy lifestyle in the process of action;
- ❖ to encourage students' service while participating in different voluntary exchanges.

### Assessment Policy

In IB Diploma Programme classes, students are assessed according to IB mark scale ranging from 1 (low) to 7 (high) with 4 (satisfactory) considered to be the "passing grade". Therefore, KJHS applies IB grading scale which is as follows: 7 – excellent; 6 – very good; 5 – good; 4 – satisfactory; 3 – mediocre; 2 – poor; 1 – very poor.

To be rewarded with the IB Diploma, a student should achieve a minimum of 24 IB points (IB grade 4 in 6 subjects). The maximum possible Diploma score is 45 points (IB grade 7 in 6 subjects plus 3 bonus points). However, there are specific IB requirements, which means that a student scoring a 1 (very poor) in any subject **does not receive the Diploma**, even if the total score is 24 or greater. Similarly, a student scoring a 3 in one subject at HL still needs to reach a total of 12 points at HL, or an overall Diploma total of 28 points.

Consequently, we recommend students to labour for the total of 28 points with no failing conditions to be considered strong IB Diploma candidates.

## COURSE DESCRIPTIONS



## LITHUANIAN LITERATURE SL/HL

### Course Description

It is designed for students who have Lithuanian as their mother-tongue or native speaker ability. The syllabus consists of works chosen from an IB prescribed list of authors (PLA), an IB prescribed literature in translation list (PLT), and works chosen freely by the school. The study of these works is divided into four parts, each having a particular focus. Students are required to read 10 works at the standard level and 13 at higher level.

### Syllabus

Language A: the course of Literature is divided into four parts:

- ❖ Part 1: Works of translation: SL-2 works, HL-3 works
- ❖ Part 2: Detailed study: SL-2 works, HL-3 works
- ❖ Part 3: Literary genres: SL-3 works, HL-4 works
- ❖ Part 4: Options: SL-3 works, HL- 3 works

Total number of works: SL-10 works, HL-13 works

### Assessment

#### **External Assessment**

- ❖ **Paper 1** (20% SL/HL) consist of Essay on an unseen passage. SL students are asked to produce a guided literary analysis on either a prose passage or poem and address both questions in their answer. HL students are required to write a literary commentary on either a prose passage or poem.
- ❖ **Paper 2** (25% SL/HL): Comparative analysis of at least 2 works from Part 3. SL and HL students write one essay based on at least two works studied in Part 3. The examination paper will be comprised of 3 questions for each literary genre and require students to compare and contrast the ways in which content is delivered through literary conventions.
- ❖ **A written literary analysis** (25% SL/HL) on a Part 1 work (1,200 – 1,500 words) with a reflective statement for each work in translation from Part 1 (300 – 400 words) and supervised writing for each work in translation from Part 1.

#### **Internal Assessment**

Assessment consists of:

- ❖ an individual oral commentary (15% SL/HL) on a Part 2 work. SL and HL students complete 2 tasks that are internally assessed by the teacher and externally moderated by IB. SL: 10 minutes, based on Part 2 works. HL: 10 minutes on poetry, followed by 10 minutes discussing one of the other Part 2 works.
- ❖ an individual oral presentation (15% SL/HL) on a Part 4 work.



## LANGUAGE B: ENGLISH, GERMAN (SL/HL)

### Course Description

Language B is a two year language acquisition course for students with some background in the target language. The main purpose of the course is to acquire the language and become interculturally aware. While acquiring the language, students will explore the culture(s) connected to it. Students study a core curriculum plus options in addition to two literary works to build the necessary skills to reach the assessment objectives of the course. Listening, speaking, reading and writing skills will be developed through analysis of moderately complex written and spoken material.

### Topics

The core is divided into three areas and is a required area of study:

- ❖ Communication and Media
- ❖ Global Issues
- ❖ Social Relationships

In addition, at both SL and HL, teachers select two topics from five options:

- ❖ Cultural Diversity
- ❖ Customs and Traditions
- ❖ Health
- ❖ Leisure
- ❖ Science and Technology

Also, at HL, students read two works of literature.

### Assessment

#### **External Assessment**

- ❖ **Paper 1** (25% SL/HL): Receptive skills. Text-handling exercises on five written texts, based on the core.
- ❖ **Paper 2** ( 25% SL/HL): Written productive skills. Two compulsory writing exercises. Section A: One task of 250–400 words, based on the options, to be selected from a choice of five. Section B: Response of 150–250 words to a stimulus text, based on the core.
- ❖ **Written assignment** (20% SL/HL): Receptive and written productive skills. Creative writing of 500–600 words plus a 150–250 word rationale, based on one or both of the literary texts read.

#### **Internal Assessment**

Internally assessed by the teacher and externally moderated by the IB.

- ❖ **Individual oral (8–10 minutes)** (20% SL/HL). Based on the options: 15 minutes' preparation time and a 10 minute (maximum) presentation and discussion with the teacher.
- ❖ **Interactive oral activity** (10% SL/HL). Based on the core: Three classroom activities assessed by the teacher.



## HISTORY SL/HL

### Course Description

History is an exploratory subject that fosters a sense of inquiry. It is also an interpretive discipline, allowing opportunity for engagement with multiple perspectives and a plurality of opinions. Studying history develops an understanding of the past, which leads to a deeper understanding of the nature of humans and of the world today.

The IB Diploma Programme (DP) history course is a world history course based on a comparative and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social and cultural, and provides a balance of structure and flexibility. The course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past.

### Topics

|                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Core Topics (HL/SL)</b><br>Prescribed Subject 3: The move to global war<br>Topic 10: Authoritarian states (20 <sup>th</sup> century): Stalin, Hitler, Mao<br>Topic 12: The Cold War: Superpower tensions and rivalries (20 <sup>th</sup> century) | <b>Options Topics (HL)</b><br>Option 4: History of Europe.<br><br>Section 14: European states in the inter-war years (1918-1939) Case study: Lithuania<br>Section 16: The Soviet Union and post-Soviet Russia (1924-2000)<br>Section 18: Post-war central and eastern Europe (1945-2000)<br>Case study: Lithuania (1989 - 2000) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Assessment

#### External assessment

- ❖ **Paper 1** (30 % SL, 20 % HL). It is a source-based examination paper based on the prescribed subjects. Sources will be primary or a mixture of primary and secondary, and may be written, pictorial or diagrammatic.
- ❖ **Paper 2** (45% SL, 25 % HL). Essay paper based on the 12 world history topics. The paper consists of two questions for each of the 12 topics. Students must answer two questions, each selected from a different topic.
- ❖ **Paper 3** (only 35 % for HL). The paper 3 examination paper for each regional option will consist of 36 questions, consisting of two essay questions on each of the 18 sections specified for the regional option. Students must answer any three questions.

#### Internal Assessment

- ❖ **Historical investigation** (25% SL, 20 % HL): Students will use the information they gathered in the second half of their first year on a larger topic, take an issue from that, and analyse it in an historical investigation maximum 2200 words. It enables students to demonstrate the application of skills and knowledge, and to pursue their personal interests, without the time limitations and other constraints that are associated with written examinations. The topic need not be related to the syllabus and students should be encouraged to use their own initiative when deciding on a topic. The free choice of topic means that the historical investigation provides a particularly good opportunity for students to engage with topics that are of personal interest, or topics related to their own local or national history.



## ECONOMICS SL/HL

### Course Description

Economics Course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments and societies.

Standard Level Economics is a general introduction to the subject. Higher Level is designed to extend the depth and content within the 5 major models while employing the same skills. SL/HL economics introduces students to the use of basic tools of economic reasoning. It provides an understanding of major contemporary economic problems through use of examples drawn from past, current and proposed economic situations. The course has a strong focus on international relationships and uses comparisons to reinforce concepts. Thorough comparative economic system analysis reinforces internationalism. This course is of particular importance for those who intend to study Social Sciences.

### Topics

|                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Section 1: Microeconomics</b><br>1.1 Competitive markets: demand and supply*<br>1.2 Elasticity<br>1.3 Government intervention**<br>1.4 Market failure*<br>1.5 Theory of the firm and market structures (HL only)                                                                                                                                                                                   | <b>Section 3: International economics</b><br>3.1 International trade**<br>3.2 Exchange rates (some topics HL extension)<br>3.3 The balance of payments**<br>3.4 Economic integration***<br>3.5 Terms of trade (HL only)                                                                                                                                                                              |
| <b>Section 2: Macroeconomics</b><br>2.1 The level of overall economic activity***<br>2.2 Aggregate demand and aggregate supply (one topic HL only)<br>2.3 Macroeconomic objectives **<br>2.4 Fiscal policy<br>2.5 Monetary policy<br>2.6 Supply-side policies<br><br>* some topics HL only, ** one topic (some topics) HL extension, plus one topic (some topics) HL only, *** one topic HL extension | <b>Section 4: Development economics</b><br>4.1 Economic development<br>4.2 Measuring development<br>4.3 The role of domestic factors<br>4.4 The role of international trade ***<br>4.5 The role of foreign direct investment (FDI)<br>4.6 The roles of foreign aid and multilateral development assistance<br>4.7 The role of international debt<br>4.8 The balance between markets and intervention |

### Assessment

#### External Assessment

- ❖ **Paper 1** (30% SL, 40% HL) consist of question requiring a written response from both sections A and B. These will include an extended response questions, which may involve writing from section A section 1-microeconomics and from section B section 2-macroeconomics. Students answer one question from a choice of two.
- ❖ **Paper 2** ( 30% SL, 40% HL.) consists of a data response questions from section 3-international economic and section 4-development economics. Candidates are required to answer 1 of 2 questions in both sections A and B one question from a choice of two.
- ❖ **Paper 3** (20% HL) consists of questions of requiring a written depth response from sections 1 to 4—microeconomics, macroeconomics, international economics, development economics. Students answer two questions from a choice of three.

#### Internal Assessment

- ❖ **Coursework** (20% SL/HL) is internally assessed by the teacher and externally moderated by the IB at the end of the course. Students produce a portfolio of three commentaries, based on different sections of the syllabus and on published extracts from the news media. Maximum 750 words x 3.



## BIOLOGY SL/HL

### Course Description

The design of Science courses for the International Baccalaureate seeks to reflect recent scientific thinking in many countries. Curriculum content has been selected with the realization that because science is continuously and rapidly progressing, both in breadth and in depth, the curriculum is regularly reviewed and updated. The emphasis in all courses is on providing students with opportunities for research and discovery because it is through personal experience that students best develop an understanding of science.

Biology is the study of living organisms, applying the techniques and approach of the experimental sciences. This study is undertaken at a variety of levels from the molecular to that of the biosphere, each with its own distinctive approaches and methods. By the end of the course, the student should have developed an appreciation of the interactions between these levels, and of organisms as functioning entities within the biosphere.

### Topics

The syllabus is divided into three parts:

| Core Topics (HL/SL)                                                                                                          | Additional Higher Level Topics (AHL)                                                                                                              | Options Topics (HL/SL)                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1) Cell biology<br>2) Molecular biology<br>3) Genetics<br>4) Ecology<br>5) Evolution and biodiversity<br>6) Human physiology | 7) Nucleic acids<br>8) Metabolism, cell respiration and photosynthesis<br>9) Plant biology<br>10) Genetics and evolution<br>11) Animal physiology | A) Neurobiology and behaviour<br>B) Biotechnology and bioinformatics<br>C) Ecology and conservation<br>D) Human physiology |

### Assessment

#### External Assessment:

The external assessment consists of three written papers:

- ❖ **Paper 1** (20% SL/HL) consists of multiple-choice questions, which test the knowledge of the core and additional material for HL students and the core only for SL students.
- ❖ **Paper 2** (40% SL, 36% HL) consists of data-based question. Short-answer and extended-response questions on core material (and AHL material for HL). One out of two (HL two out of three) extended response questions to be attempted by candidates.
- ❖ **Paper 3** (20% SL, 24% HL). Section A: candidates answer all questions, two to three short-answer questions based on experimental skills and techniques, analysis and evaluation, using unseen data linked to the core material (and AHL material for HL). Section B: short-answer and extended-response questions from one option.

#### Internal Assessment

Practical Scheme of Work: it is required for HL students to spend 60 hours and for the SL students 40 hours on practical and investigative work. Student work is internally assessed by the teacher and externally moderated by the IBO.

- ❖ **Group 4 Project:** 10-15 hours for not assessed collaborative activity where students from different Group 4 subjects work in small mixed-subject and mixed-level groups on a common scientific or technological topic or problem.
- ❖ Individual **Investigation** (10 hours) and writing of Internal Assessment report (20 % SL/HL).
- ❖ **Experimental work** (40 hours for HL students and 20 hours for SL students) reflecting the content of the subject syllabus.



## PHYSICS SL/HL

### Course Description

In the Diploma Programme Physics course both theory and experiments complement one another naturally, as they do in the wider scientific community. It also allows students to develop interpersonal and digital communication skills and increase their abilities in the use of Mathematics, which are essential in modern scientific endeavour and are important life-enhancing, transferable skills in their own right.

Students taking the course must be able to perform the basic arithmetic functions, carry out manipulations with trigonometric functions, carry out manipulations with logarithmic and exponential functions (HL only), use standard notation, understand direct and inverse proportion, solve simple algebraic equations and linear simultaneous equations, plot and interpret graphs, interpret data presented in various forms (including various graphical forms).

### Topics

The syllabus is divided into three parts:

| <b>Core Topics (HL &amp; SL)</b>                                                                                                                                                                                             | <b>Additional Higher Level Topics (AHL)</b>                                                         | <b>Options Topics (HL/SL)</b>                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 1) Measurements and uncertainties<br>2) Mechanics<br>3) Thermal physics<br>4) Waves<br>5) Electricity and magnetism<br>6) Circular motion and gravitation<br>7) Atomic, nuclear and particle physics<br>8) Energy production | 9) Wave phenomena<br>10) Fields<br>11) Electromagnetic induction<br>12) Quantum and nuclear physics | A) Relativity<br>B) Engineering physics<br>C) Imaging<br>D) Astrophysics |

### Assessment

#### **External Assessment:**

The external assessment for SL and HL students consists of three written papers:

- ❖ Paper 1 (20%) consists of multiple-choice questions. Students receive a physics data booklet containing key equations and physical constants, but calculators are not permitted.
- ❖ Paper 2 (40% SL, 36% HL) consists of questions requiring a written response. These will include short-answer and extended-response questions. The extended response questions may involve writing a number of paragraphs, solving a substantial problem, or carrying out a substantial piece of analysis or evaluation.
- ❖ Paper 3 (20% SL, 24% HL) consists of two sections. In section A students answer one data-based question and several short-answer questions on experimental work, and in section B students answer several short-answer and extended-response questions from one option.

#### **Internal Assessment**

Practical Scheme of Work: it is required for HL students to spend 60 hours and for the SL students 40 hours on practical and investigative work. Student work is internally assessed by the teacher and externally moderated by the IBO.

- ❖ **Group 4 Project:** 10-15 hours for not assessed collaborative activity where students from different Group 4 subjects work in small mixed-subject and mixed-level groups on a common scientific or technological topic or problem.
- ❖ Individual **Investigation** (10 hours) and writing of Internal Assessment report (20 % SL/HL).
- ❖ **Experimental work** (40 hours for HL students and 20 hours for SL students) reflecting the content of the subject syllabus.



## CHEMISTRY SL/HL

### Course Description

Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. It is often called the central science, as chemical principles underpin both the physical environment in which we live and all biological systems. Apart from being a subject worthy of study in its own right, Chemistry is a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science, and serves as useful preparation for employment.

The Diploma Programme Chemistry course includes the essential principles of the subject but also, through selection of an option, allows teachers some flexibility to tailor the course to meet the needs of their students.

### Topics

The syllabus is divided into three parts:

| Core Topics (HL/SL)                                                                                                                                                                                                                                                                                  | Additional Higher Level Topics (AHL)                                                                                                                                                                                                                                                              | Options Topics (HL/SL)                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| 1) Stoichiometric relationships<br>2) Atomic structure<br>3) Periodicity<br>4) Chemical bonding and structure<br>5) Energetics/thermochemistry<br>6) Chemical kinetics<br>7) Equilibrium<br>8) Acids and bases<br>9) Redox processes<br>10) Organic chemistry<br>11) Measurement and data processing | 12) Atomic structure<br>13) The periodic table – the transition metals<br>14) Chemical bonding and structure<br>15) Energetics/thermochemistry<br>16) Chemical kinetics<br>17) Equilibrium<br>18) Acids and bases<br>19) Redox processes<br>20) Organic chemistry<br>21) Measurement and analysis | A) Materials<br>B) Biochemistry<br>C) Energy<br>D) Medicinal chemistry |

### Assessment

#### External Assessment:

The external assessment consists of three written papers:

- ❖ Paper 1 (20%) consists of multiple-choice questions. Students receive a chemistry data booklet containing key equations, physical constants and the periodic table, but calculator are not permitted.
- ❖ Paper 2 (40% SL, 36% HL) consists of data-based question. Short-answer and extended-response questions on core material (and AHL material for HL).
- ❖ Paper 3 (20% SL, 24% HL) consists of two sections. In section A students answer one data-based question and several short-answer questions on experimental work, and in section B students answer several short-answer and extended-response questions from one option.

#### Internal Assessment

Practical Scheme of Work: it is required for HL students to spend 60 hours and for the SL students 40 hours on practical and investigative work. Student work is internally assessed by the teacher and externally moderated by the IBO.

- ❖ **Group 4 Project:** 10-15 hours for not assessed collaborative activity where students from different Group 4 subjects work in small mixed-subject and mixed-level groups on a common scientific or technological topic or problem.
- ❖ Individual **Investigation** (10 hours) and writing of Internal Assessment report (20 % SL/HL).
- ❖ **Experimental work** (40 hours for HL students and 20 hours for SL students) reflecting the content of the subject syllabus.



## COMPUTER SCIENCE SL/HL

### Course Description

This course will involve solving problems using computers. A full understanding of logical problem solving will be required as well as a detailed knowledge of how computers operate. Students will be guided by problems solving strategies that will be continually reinforced in their coursework. The emphasis will be put on the use of a logical approach and analytical thinking while using a computer to solve problems.

Students are expected to acquire an advanced understanding of computational thinking using the Java programming language as part of the additional course option. The core course focuses on software development, fundamentals of computer systems, and the development of networks, as well as computational thinking, problem-solving and programming. The HL aspect is extended to include advanced data structures and algorithms, computer resource management and the integration and application of control systems.

### Topics

The syllabus is divided into three parts:

|                                                                                                                                                                     |                                                                                                                    |                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Core Topics (HL &amp; SL)</b><br>1) System fundamentals<br>2) Computer organization<br>3) Networks<br>4) Computational thinking, problem-solving and programming | <b>Additional Higher Level Topics (AHL)</b><br>5) Abstract data structures<br>6) Resource management<br>7) Control | <b>Options Topics (HL/SL)</b><br>Option D: Object-oriented programming (OOP). This will cover practical and theoretical concepts of object oriented programming in any programming language. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**HL Case study:** Additional subject content introduced by the annually issued case study. Students will research the concepts discussed in the case study in detail through project work.

### Assessment

**External assessment** is conducted at the end of the second year. It consists of three papers:

- ❖ **Paper 1** is worth 45% SL or 40% HL and **Paper 2** is worth 25% SL or 20% HL of the overall mark and covers Standard and Higher Level core theory and the OOP option extension.
- ❖ **Paper 3** is worth 20% HL of the final mark and examines the case study aspect of the course.

**Internal assessment:** Practical application of skills through the development of a product and associated documentation. This product will be a working programme developed in any programming language. The analysis, design and production of the final programmed solution with accompanying documentation are worth 30% SL or 20% HL of the final mark.

**Group 4 Project:** A collaborative activity where students from different Group 4 subjects work in small mixed-subject and mixed-level groups on a common scientific or technological topic or problem.



## MATHEMATICS: ANALYSIS AND APPROACHES SL/HL

### Course Description

This course emphasizes the need for analytical expertise influenced by the increasingly new tendency to handle mathematics. This course consists of a traditional pre-university mathematics program. In addition, this course allows the use of mathematical software and hand-held technology. Mathematics - the course of analysis and approaches - strongly emphasizes the ability to construct, communicate and justify correct mathematical arguments.

This course at a higher level develops strong algebraic skills and the ability to understand simple proof. The students are encouraged to understand mathematics in real-world contexts and solve real-life problems. The course is designed for the students who have a strong interest in mathematics and enjoy confronting challenges while being engaged in mathematical problem solving.

### Topics

|                                                                                                                                                           |                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>Core Topics (HL &amp; SL)</b><br>1) Number and algebra<br>2) Functions<br>3) Geometry and trigonometry<br>4) Probability and statistics<br>5) Calculus | Teachers unifying themes of mathematical inquiry, mathematical modelling. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|

### Assessment

#### **External Assessment:**

The external assessment consists of three written papers:

- ❖ Paper 1 (40% SL, 30% HL) consists of questions on the Core Topics as well as extended-response questions. Calculator not allowed.
- ❖ Paper 2 (40% SL, 30% HL) consists of questions on the Core Topics as well as extended-response questions. Graphics calculator is required.
- ❖ Paper 3 (20% HL) consists of extended response problem-solving questions.

**Internal assessment:** A project assessment consisting of one individual mathematical exploration, a piece of written work that involves investigating an area of mathematics, accounts for 20% of the grade. This last component is internally assessed by the teacher and externally moderated by the IB at the end of the course.



## VISUAL ARTS SL/HL

### Course description

This course is designed to develop a student's artistic sensibility in terms of research, experimentation, and self-discovery. During the two year course of study the student will undertake a substantial visual project that will include a series of work accompanied by a workbook. The student will enrich this exploration through historical and contemporary investigations in various cultures and epochs. Students will record and document their relevant findings while enhancing a group of works. The assessment will be based on the quality and depth as well as the visual communication of the work.

### Topics

The course will cover a variety of aspects relating to the growth of the creative learner:

- ❖ **Studio production.** Students will develop a group of works based on exploration and experience. Continual experimentation with media, techniques and concepts will be recorded in the workbook. Implementation of experiments will be encouraged during the learner's development.
- ❖ **Historical research.** Learners will conduct an ongoing investigation of selected artists, epochs and genres. These findings will be recorded in the workbook. Students will be encouraged to visit museums independently and also with the instructor. Writing, sketching, and recording findings will be documented in the workbook.
- ❖ **Cultural and contemporary research.** Students will conduct ongoing investigations of various cultures, contemporary trends and imagery while documenting their findings in the workbook. These developments will be integrated with and responded to in the production of work.
- ❖ **Experimentation.** Students will be encouraged to explore media of their choice relevant to the selected topic. Experiments are documented in the investigation workbook while discoveries are applied to final work.
- ❖ **Final Work.** Students will be expected to produce a series of work based on their research and ideas. These works are based on the topic or topics that the student has investigated. During the course students will be expected to develop ideas attempting a variety of solutions and possibilities. The growth and development of the work should be evident throughout the course.

### Assessment

Each student's work and research will be examined according to the research workbook and the final work. The final work will be 40% of the grade with research being 40% of the overall grade.

Higher level students must make additionally a Critical Study will make up the remaining 20% of the score. This study develops historical and contemporary artistic research. Higher level students must make relevant connections with their own work.



## THEORY OF KNOWLEDGE (TOK)

TOK activities and discussions aim to help students discover and express their views on knowledge issues. The course encourages students to share ideas with others and to listen to and learn from what others think.

### Objectives

**Having followed the TOK course, students should be able to:**

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

### Syllabus

#### Topics:

The problem and nature of knowledge

- |                        |                                  |
|------------------------|----------------------------------|
| • Language             | • History                        |
| • Perception           | • The arts presentation          |
| • Reason               | • Ethics                         |
| • Faith                | • Religion                       |
| • The human sciences   | • Mathematics                    |
| • The natural sciences | • Truth and wisdom Essay writing |



## ADMISSION TO UNIVERSITIES

The IB is a challenging pre-university qualification, recognised for its high quality and integrity by universities and employers worldwide.

IB students learn how to learn and to develop independence of mind, critical and creative thinking, intellectual flexibility and self-motivation: all qualities and skills that transfer well to university-level study.

There is plenty of evidence that leading universities are very impressed by IB students. All applicants to the UK Universities must submit a UCAS application online by the relevant deadline.

### International Baccalaureate typical offers and requirements

The Director of Admissions at Cambridge is on record in support of the IB, *“because the IB differentiates better than A level; if we are hesitating about making an offer at all, we would be more likely to make an offer to an IB student than to an A level student.”*

Cambridge University offers usually require scores between 40 and 41 points out of 45, with 776 in Higher Level subjects.

Marilyn McGrath Lewis, Director of Undergraduate Admissions at Harvard University, observes that, *“IB is well known to us for excellent preparations. Success in an IB programme correlates well with success at Harvard. We are always pleased to see the credentials of the IB Diploma Programme on the transcript.”*

Oxford University students of the International Baccalaureate are usually required to achieve a level of performance of 38–40 points, including core points, with 6s and 7s in the higher-level subjects.

### Sample typical offers for 2014 entry:

Business and Management at Oxford University – 39 points; Law at Queen Mary, University of London – 36 points; Medicine at Kings College, London – 35 points; Engineering at Leeds University – 35 points; Economics at Liverpool University – 35 points; Neuroscience at St Andrews University – 35 points; Architecture at Oxford Brookes University – 32–4 points; Physics at Leicester University – 32 points; History at Aberystwyth University – 29 points; Politics at Manchester Metropolitan University – 28 points; students in the UK who “fail” the Diploma with fewer than 24 points are usually accepted onto degree courses via the UCAS tariff.

### Requirements for admission to Lithuanian Universities:

- ❖ Extra 0, 1, 2 or 3 points to one National Mature Exam for Extended Essay and TOK.

| HL grade | Grade conversion into Lithuanian National Matura Exams | SL grade | Grade conversion into Lithuanian National Matura Exams | Mathematical Studies grades | Grade conversion into Lithuanian National Matura Exams |
|----------|--------------------------------------------------------|----------|--------------------------------------------------------|-----------------------------|--------------------------------------------------------|
| 7        | 100                                                    | 7        | 95                                                     | 7                           | 86                                                     |
| 6        | 95                                                     | 6        | 86                                                     | 6                           | 68                                                     |
| 5        | 85                                                     | 5        | 68                                                     | 5                           | 52                                                     |
| 4        | 68                                                     | 4        | 52                                                     | 4                           | 30                                                     |
| 3        | 36                                                     | 3        | 30                                                     | 3                           | 16                                                     |
| 2        | 21                                                     | 2        | 16                                                     |                             |                                                        |

## THE EXPERIENCE OF IB

Since introducing the International Baccalaureate in September 2013, this is what our students have to say:



“I came to IB looking for new challenges, but I found much more than that. The knowledge that we gain is only a part of what one gets in the process of learning. In IB, there is absolutely no question whether time spent studying is valuable. You instinctively feel that without continuous effort, you will not achieve anything big. Here, I learned to think critically, manage my time and feel responsibility for my actions.

As one of the alumni noted, IB makes us grow up. Being an international baccalaureate student myself, I finally see how right he was. IB is one of the things in life that I will never regret.”

**Augustė Saladytė**

IB DP student

Cambridge University student



“To me IB is both a challenge and an opportunity. Challenge myself to take on the workload and change mindset towards school and learning in general and to take opportunity to learn amazing things and eventually reach for the world.”

**Adomas Boruta**

IB DP alumni 2015,

Cambridge University student



“Looking back, choosing to study in KJHS' IB program is one of the best decisions I have ever made: not only did I grow academically and personally, but also I met many incredible people in this community who are important part of my life to this day.

What's more, IB is unique in both its depth and its breadth, which makes it suitable for virtually any type of student, whether you want to be an artist, an engineer or you have no clue what you want to do with your life. Belonging to the last group, I often reflect at what a transformative experience my two short years at KJHS were. And although I still haven't figured out my life, I have no doubt that lessons I learned at KJHS both inside and outside of the classroom will help me make the most informed decisions possible for the rest of my life.”

**Justas Janonis**

IB DP alumni 2015,

Harvard University student

PATVIRTINTA  
Lietuvos jėzuitų provincijolo  
2019 m. sausio 23 d. įsakymu Nr. V-9

## ENROLLING IN THE IB DIPLOMA PROGRAMME AT KAUNAS JESUIT HIGH SCHOOL 2019

The International Baccalaureate Diploma Programme (IB DP) is a unique opportunity for students of grades III-IV to unleash their full personal potential and to develop effective learning skills for successful university studies in future. This program is based upon the well-balanced educational plan that aims at the highest academic achievement. The IB Diploma is recognized by the best universities of the world. You can find additional information in the [IB DP Booklet](#).

Students wishing to enroll in the IB DP at Kaunas Jesuit High School (KJHS) must complete all of the standard KJHS admissions procedures.

Following KJHS teachers' recommendations Admission Committee may accept a Pre-IB student to the IB DP programme without the Admission Test (Entrance Exam). They must submit the completed Application Form without the Application and Admission fee.

| Stages                                       | Dates                        | Notes                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. <b>Online Application</b> submission form | March 1 – May 22             | Submit the completed online Application Form <a href="https://goo.gl/forms/9pdInzTGsZZcoRt82">https://goo.gl/forms/9pdInzTGsZZcoRt82</a> by Parent(s) / Legal Guardians.                                                                                                                                                                       |
| 2. <i>Application fee</i>                    | until May 22                 | Application and Assessment fee is 30 EUR.<br>Application fee has to be transferred to the school bank account No. LT85 4010 0425 0070 9680, bank AB LUMINOR, bank code is No 40100. It is required to state the purpose of the payment as “Application fee to IB Programme“, to mention student’s name and surname.                            |
| 3. Applicant’s code                          | within 2–3 working days      | A code is submitted to every applicant online after receiving Application fee.                                                                                                                                                                                                                                                                 |
| 4. <b>Additional documents</b>               | 7.45 am – 5 pm, until May 23 | Submit the following documents to the school Office (Room B108) or by email <a href="mailto:priemimas@kjjg.lt">priemimas@kjjg.lt</a> : <ul style="list-style-type: none"> <li>a certified copy of the report card from the first term of year 10 or 11 (except KJHS students); a certified copy of the school report book accepted.</li> </ul> |
| 5. <b>Open Day</b>                           | at 6 pm, March 27            | Introduction of International Baccalaureate Diploma Programme and National Programme.                                                                                                                                                                                                                                                          |
| 6. Registration for admission test           | 8.30 am – 9.50 am, May 25    | The applicant must have a passport and the code received by email.                                                                                                                                                                                                                                                                             |
| 7. <b>Admission Test</b>                     | May 25 (duration 2 hours)    | <b>Requirements for entrance exam</b> (English and Mathematics are compulsory; two other subjects are compulsory and may be chosen from History, Physics, Chemistry or Biology).<br>Accompanying persons are not allowed to stay on the school premises.                                                                                       |
| 8. Publication of test results               | till 6 pm, May 27            | Test results will be announced individually by email.                                                                                                                                                                                                                                                                                          |

|                                                                     |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9. Test review                                                      | 3 pm – 4 pm,<br>May 27           | Assessment test review at school.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10. Admission Committee <b>Interview</b> with successful applicants | 2 pm – 7 pm,<br>June 3–5         | An applicant is interviewed by Admission Committee after having passed the entrance examinations.<br>Date and time of the Interview will be announced together with test results. The applicant's Parents or Legal Guardians are required to participate in the interview.                                                                                                                                                                                                                                                                                                                                                                                 |
| 11. Announcement of the enrolled and rejected applicants            | till 8 pm, June 7                | Announcement of enrolled and rejected applicants by email.<br><b>Favourable consideration:</b> <ul style="list-style-type: none"> <li>• Students showing proof of successful participation in republican and international competitions</li> <li>• Students with excellent previous academic record</li> <li>• Students applying as transfers from another IB school or honour program</li> </ul>                                                                                                                                                                                                                                                          |
| 12. <b>Meeting with enrolled students</b>                           | at 7 pm, June 12                 | Meeting of enrolled students and their Parents/Legal Guardians with KJHS staff. A written note regarding the enrolment is submitted to the previous school.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 13. Photo session                                                   | 4 pm – 8 pm,<br>June 12          | Digital photographs have to be taken for the school administration purposes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 14. <b>Agreement Signing</b>                                        | 7.45 am – 5.30 pm,<br>June 12–14 | Signing of Agreement by successful students and Parent(s)/Legal Guardians.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 15. Submission of additional documents                              | 7.45 am – 5.30 pm,<br>June 12–14 | The students must bring to the secretarial office (B108) the following: <ul style="list-style-type: none"> <li>• a contract with the KJHS;</li> <li>• a copy of a student's personal file (for those who study in Lithuanian schools if a previous school has one);</li> <li>• A medical certificate (Form 027-1/A);</li> <li>• digital photo (if the photo is not made in KJHS);</li> <li>• a copy of a student's mark and achievement certificate provided by the Middle school (at the end of form 10 or 11);</li> <li>• a copy of a birth certificate;</li> <li>• a copy of a passport / identity card;</li> <li>• a form provided by KJHS.</li> </ul> |

### Tuition and fees

- ❖ IB Diploma Programme students must pay annual 840 EUR tuition fees.
- ❖ During the last IB DP year, students have to pay subject registration fees for each taken subject exam and post office expenses (approx. 700 EUR). The fees are changed every year.
- ❖ Student from a low income household may get a special support grant if he/she is eligible to receive income support. It is advisable to make an application to the fund till the middle of September or January. Amounts approved under the fund will vary depending on factors such as the needs of each individual applicant and the overall level of demand for the fund.

### Uniforms

- ❖ Uniforms can be purchased at „8 TO GO“, Maxima, II floor., Pramonės pr. 29, Kaunas:  
<http://8togo.lt/en/>

# KAUNAS JESUIT HIGH SCHOOL

## IB DIPLOMA PROGRAMME STUDENT CURRICULUM

I, ....., wish to enroll in the following IB courses as a IB DP candidate:

| Group and Subject                   | Level and Hours                                                                | Notes                                                     |
|-------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------|
| <b>Religion</b>                     | <input type="checkbox"/> 1 hour                                                | Compulsory                                                |
| <b>Theory of Knowledge</b>          | <input type="checkbox"/> 2-3 hours                                             | Compulsory                                                |
| <b>1. Language A</b>                |                                                                                | At least 1 subject from this group                        |
| The Lithuanian literature           | <input type="checkbox"/> H (5-6 hours)<br><input type="checkbox"/> S (4 hours) |                                                           |
| <b>2. Language B</b>                |                                                                                | At least 1 subject from this group                        |
| English B                           | <input type="checkbox"/> H (5-6 hours)                                         |                                                           |
| German B                            | <input type="checkbox"/> S (4 hours)<br><input type="checkbox"/> H (5 hours)   |                                                           |
| <b>3. Individuals and Societies</b> |                                                                                | At least 1 subject from this group                        |
| History                             | <input type="checkbox"/> H (5-6 hours)<br><input type="checkbox"/> S (4 hours) |                                                           |
| Economics                           | <input type="checkbox"/> H (5 hours)<br><input type="checkbox"/> S (4 hours)   |                                                           |
| Geography                           | <input type="checkbox"/> H (5 hours)<br><input type="checkbox"/> S (4 hours)   |                                                           |
| <b>4. Experimental Science</b>      |                                                                                | At least 1 subject from this group                        |
| Biology                             | <input type="checkbox"/> H (5-6 hours)<br><input type="checkbox"/> S (4 hours) |                                                           |
| Physics                             | <input type="checkbox"/> H (5-6 hours)<br><input type="checkbox"/> S (4 hours) |                                                           |
| Chemistry                           | <input type="checkbox"/> H (5-6 hours)<br><input type="checkbox"/> S (4 hours) |                                                           |
| Computer science                    | <input type="checkbox"/> H (5-6 hours)<br><input type="checkbox"/> S (4 hours) |                                                           |
| <b>5. Mathematics</b>               |                                                                                | At least 1 subject from this group                        |
| Mathematics                         | <input type="checkbox"/> H (5-6 hours)<br><input type="checkbox"/> S (4 hours) |                                                           |
| <b>6. Art</b>                       |                                                                                | The student may choose another subject from group 1 to 5. |
| Visual arts                         | <input type="checkbox"/> H (5 hours)<br><input type="checkbox"/> S (4 hours)   |                                                           |
| <b>Total hours</b>                  |                                                                                |                                                           |
| <b>Total H (High Level)</b>         |                                                                                | At least 3 and not more 4 subjects                        |
| <b>Total S (Standard Level)</b>     |                                                                                | At least 2-3 subjects                                     |
| <b>Total subjects</b>               |                                                                                | No more 6 subjects                                        |

Student signature.....

Parent signature.....

Date.....





## *Ad majora natus sum*

**Kauno jėzuitų gimnazija**

Rotušės a. 9  
LT-44280 Kaunas

Tel. +370 37 280521  
kjpg@kjpg.lt  
www.kjpg.lt

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Sąskaitos Nr. LT85 4010 0425 0070 9680  
AB DNB bankas

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