# **Courses in English**

# Finnish as Mother Tongue

# Äl01 Interpreting and writing texts

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- The students deepen their understanding of diverse texts. Their understanding of text and their multi-literacy skills are expanding. The key skills of producing and interpreting texts needed in upper secondary school and further studies are developed.

# Äl02-03 Language and Text Awareness and Interaction

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- Students deepen their understanding of writing and the significance language has as a social phenomenon.
- Students enhance their skills in group communication and learn how to analyse and evaluate phenomena in group communication.

## Äl04 The Basics of Literature

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- Students learn to analyze and interpret fiction texts and to enjoy fiction in its various forms. Their understanding of fiction, narrative, the artistic function of language and its cultural significance deepens.

# Äl05-07 Critical approach, Texts and Interaction

- obligatory / not independently / 3 credits / year 2 / grades 4 10
- Students learn about the methods of influence and argumentation and deepen the knowledge and skills related to them. They learn to examine different texts and their ways of expression, especially from the point of view of influence.

# Äl06-08 Literature and Writing

- obligatory / not independently / 3 credits / year 2 / grades 4 10
- The skills of analyzing, interpreting and producing different texts develop. The students' perception of fiction gets wider and deeper.

# Äl09 Enhancing Interaction Skills

- national selective / not independently / 2 credits / year 2-3 / grades 4 10
- Students deepen and diversify their skills and knowledge of speaking and interaction. Their
  awareness of their own communication skills deepens. Students learn to analyze and
  evaluate speaking and interaction skills from different perspectives.
- At the end of the course, it is possible to take the national Puhvi (oral communication) exam.

# Äl10 Enhancing Writing Skills

national selective / not independently / 2 credits / year 3 / grades 4-10

 Revision course for the matriculation examination writing skills test in the Finnish language and literature. Students enhance their skills in producing different texts, especially extensive factual texts based on a source material.

# **Äl11 Enhancing the Skills of Interpreting Texts**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Revision course for the matriculation examination reading skills test in the Finnish language and literature. Students enhance and widen their skills in analyzing, interpreting and evaluating various texts. Their critical and cultural reading skills develop.

# Äl12 Language Planning for Third Year Students

- school-specific selective / can be completed independently / 2 credits / year 3 / pass/fail
- Students deepen their skills in editing and honing their own texts and get used to understanding the importance of using correct language in written communication.

# **Äl13 Support for Learning to Write**

- school-specific selective / not independently / 2 credits / year 1-2 / pass/fail
- The course focuses on developing the students' writing skills. We practice writing key texts
  central in high school studies In a guided and phased manner by planning, building the text,
  using materials and completing the text.
- The course is meant especially for students who need additional support with their skills in writing and reading texts as part of the Finnish language and literature studies.

# **ÄI14 Creative Writing**

- school-specific selective / can be completed independently / 2 credits / year 3 / pass/fail
- We learn about producing fictional texts including poems, short stories, dialogues and aphorisms.
- Students are set free from the strict norms of producing texts, they discover their strengths as writers and develop their creative expression.

# ÄI15 A Step into the World of Literature

- school-specific selective / not independently / 2 credits / year 2-3 / pass/fail
- Students strengthen the position of literature in their lives and increase their knowledge of
  literature and their interest in it. They strengthen their textual skills through literature by
  breaking down and interpreting texts from different perspectives and by drawing
  conclusions.

# Äl16 The Diploma in Reading in Vihdin lukio

- school-specific selective / independently / 4 credits / year 1-3: preferably started in year 1 / pass/fail
- The students' knowledge of literature grows and becomes more diverse when they choose
  fiction and non-fiction that interests them from the collection of books available and
  familiarize themselves with it by doing diverse tasks.

#### A-ENGLANTI

## **ENA01-ENA02 My English and I**

- obligatory / not independently / 4 credits / year 1 / grades 4 10
- Studying skills and the building of one's language identity, English as a lingua franca

# **ENA03** The English Language and Culture as a Means of Creative Expression

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- Creative activities, the significance of culture and art for the individual and the community, self-expression in building one's identity

## **ENA04** The English Language as a Means of Influence

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- Making a difference in civil society, human rights questions, equality, freedom of speech, an individual's responsibility and duties, the role of media in forming attitudes

#### **ENA05 A Sustainable Future and Science**

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- Various fields of knowledge and science, visions of the future, innovations that construct a sustainable future, English as the language of science

# **ENA06** The English Language in Further Studies And Working Life

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- further studies and career plans, completing the language profile for future needs, national and international communities and companies as employers, the management of everyday economy of a young independent person entering the working life

## **ENA07** The Environment And a Sustainable Lifestyle

- national selective / not independently / 2 credits / year 3 / grades 4-10
- global environmental issues, a sustainable lifestyle, examples of international treaties and contract negotiations, solution orientation

## **ENA08 Communicate And Influence Orally**

- national selective / not independently / 2 credits / year 2-3 / grades 4-10
- different features of speech, the effect that different backgrounds and native languages have on speaking situations, dialogicality, expnading the themes dealt in the obligatory courses

# **ENA09 Revision for the Matriculation Exam in English 1**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- current phenomena, different worldviews, honing grammatical structures, listening and reading comprehension, writing, revision for the matriculation exam

# **ENA10 Revision for the Matriculation Exam in English 2**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- revision and strengthening grammatical structures and vocabulary, practicing writing, strengthening the skills required in taking the matriculation exam

# **ENA11 Remedial Course in English**

- school-specific selective / not independently / 1 credit / year 1-2 / pass/fail
- efficient revision and practice of basic grammar, following the goals of the first course on an individual level

# **ENA12 Creative Writing**

- school-specific selective / not independently / 1 credit / year 1-2 / pass/fail
- producing creative texts with diverse structures and vocabulary

## **ENA13 Internationalism**

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- strengthening and using the different foreign language skills in real communication situations
- completing the course includes being active in the school's international activities by for example accommodating international guests and participating in the program organized for guests

## **B1-RUOTSI**

# **RUB11-RUB12 I Speak Swedish**

- obligatory / not independently / 4 credits / year 1 / grades 4 10
- Students start compiling their language profile portfolio and set their own goals. They
  develop their communication skills and learn to use Swedish in everyday situations such as
  freetime, hobbies and upper secondary school studies.

## **RUB13 Culture and the Media**

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- Students learn about Finnish-Swedish, Swedish and other Scandinavian cultural phenomena and the Swedish media. They are encouraged to use Swedish by, for example, making a presentation.

### **RUB14 Our Environment**

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- Students practice communication skills by interpreting and producing different types of texts that deal with habitats and societies among other things.

## **RUB15 Studies and Working Life**

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- Students continue compiling their language profile portfolio. They learn about Scandinavian and international cooperation and opportunities to study and work in Swedish. They practice for example writing applications and taking part in job interviews.

# **RUB16 Communicate and Influence Orally**

- national selective / not independently / 2 credits / year 2-3 / grades 4-10
- Students practice and develop their oral language skills in versatile interaction situations.
   During the course, we can take a trip to, for example, Svenska teatern (the Swedish Theater) or another similar destination.
- There is a national oral examination at the end of the course.

## **RUB17 Sustainable Lifestyle**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Students widen their skills in producing and interpreting various texts to different audiences including formal and informal texts and social media.

## **RUB18 Revision Course in Swedish 1**

- school-specific selective / not independently / 2 credits / year 2 / pass/fail
- Students enhance their skills in interpreting and producing Swedish. They revise and apply
  the contents of obligatory and selective courses. They prepare for the matriculation
  examination by practicing different kinds of exam assignments and by taking a preliminary
  exam.

### **RUB19 Revision Course in Swedish 2**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- Students revise and enhance their grammar skills and vocabulary and practice reading and listening comprehension, producing texts and answering exam questions.

## **RUB110 Remedial Course in Swedish 1**

- school-specific selective / not independently / 1 credit / year 1 / pass/fail
- Students revise and strengthen their comprehensive school Swedish skills.

#### **RUB111 Remedial Course in Swedish 2**

- school-specific selective / not independently / 1 credit / year 2-3 / pass/fail
- Students revise and strengthen their upper secondary school Swedish skills.

## **RUB112 On the Åland Islands**

• school-specific selective / not independently / 2 credits / year 2-3 / pass/fail

 Students learn about the culture in the Swedish-speaking area and use Swedish in different authentic situations. The course includes a study excursion that the students pay for themselves.

## FOREIGN LANGUAGES, B2 AND B3 SYLLABI

# **GERMAN B2** the foreign language started in years 7-9

## **SAB21 The Rudiments of the Basic Level**

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Different situations at school and in free time

#### SAB22 Basic Level 1

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Customs and traditions

#### SAB23 Basic Level 2

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Health and wellbeing

#### SAB24 Basic Level 3

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Culture, culture!

## **SAB25 Basic Level 4**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Studies, work and future

#### SAB26 Basic Level 5

- national selective / not independently / 2 credits / year 2 / grades 4-10
- · Current affairs and the media

## **SAB27 Continuation to Basic Level 1**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Our world and sustainable development

# **SAB28 Continuation to Basic Level 2**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Internationalism and language skills in further studies. Revision and practice for the matriculation examination.

#### SAB29 Internationalism

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- a study excursion abroad or hosting a guest in Finland

## FRENCH B2 The foreign language started in years 7-9

#### RAB21 The Rudiments of the Basic Level 3

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Different situations at school and in free time

#### **RAB22 Basic Level 1**

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Customs and traditions

#### RAB23 Basic Level 2

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Health and wellbeing i

## **RAB24 Basic Level 3**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Culture, culture!

### **RAB25 Basic Level 4**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Studies, work and future

#### **RAB26 Basic Level 5**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Current affairs and the media

# **RAB27 Continuation to Basic Level 1**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Our world and the sustainable development

# **RAB28 Continuation to Basic Level 2**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Internationalism and language skills in further studies. Revision and practice for the matriculation examination.

#### **RAB29 Internationalism**

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- an excursion abroad or hosting a guest in Finland

# SPANISH B2 The foreign language started in years 7-9

#### EAB21 The Rudiments of Basic Level 3

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Different situations at school and in free time

#### **EAB22 Basic Level**

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Customs and traditions

#### **EAB23 Basic Level 2**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Health and wellbeing

#### **EAB24 Basic Level 3**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Culture, culture!

## **EAB25 Basic Level 4**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Studies, work and future

#### **EAB26 Basic Level 5**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Current affairs and the media

### **EAB27 Continuation to Basic Level 1**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Our world and sustainable development

#### **EAB28 Continuation to Basic Level 2**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Internationalism and language skills in further studies. Revision and practice for the matriculation examination.

#### **EAB29 Internationalism**

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- a study excursion to Spain

# German B3 The foreign language started at upper secondary school

#### SAB31 An Introduction to the Basics 1

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Getting to know each other and the new language

## SAB32 An Introduction to the Basics 2

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Going shopping in the new language!

## SAB33 An Introduction to the Basics 3

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Different situations at school and in free time

#### SAB34 Basic Level 1

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Customs and traditions

#### SAB35 Basic Level 2

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Health and wellbeing

#### SAB36 Basic Level 3

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Culture, culture!

#### SAB37 Basic Level 4

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Studies, work and future

#### SAB38 Basic Level 5

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Current affairs and the media

#### SAB39 Continuation to Basic Level 1

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- Our world and sustainable development

## **SAB310 Continuation to Basic Level 2**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- Internationalism and language skills in further studies. Revision and practice for the matriculation examination.

#### **SAB311 Internationalism**

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- a study excursion abroad or hosting a guest in Finland

# French B3 The foreign language started at upper secondary school

#### RAB31 An Introduction to the Basics 1

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Getting to know each other and the new language

#### RAB32 An Introduction to the Basics 2

- valtakunnallinen valinnainen / ei suositella itsenäisesti / laajuus 2 op / suoritusvuosi 1 / numeroarviointi
- national selective / not independently / 2 credits / year 1 / grades 4-10
- Going shopping in the new language!

#### RAB33 An Introduction to the Basics 3

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Different situations at school and in free time

#### **RAB34 Basic Level 1**

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Customs and traditions

#### **RAB35 Basic Level 2**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Health and wellbeing

#### **RAB36 Basic Level 3**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Culture, culture!

#### **RAB37 Basic Level 4**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Studies, work and future

### **RAB38 Basic Level 5**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Current affairs and the media

#### **RAB39 Continuation to Basic Level 1**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- Our world and sustainable development

# **RAB310 Continuation to Basic Level 2**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- Internationalism and language skills in further studies. Revision and practice for the matriculation examination.

# **RAB311 Internationalism**

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- a study excursion abroad or hosting a guest in Finland

## Spanish B3 The foreign language started at upper secondary school

#### EAB31 An Introduction to the Basics 1

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Getting to each other and the new language

## EAB32 An Introduction to the Basics 2

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Going shopping in the new language!

#### EAB33 An Introduction to the Basics 3

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Different situations at school and in free time

#### **EAB34 Basic Level 1**

- national selective / not independently / 2 credits / year 1 / grades 4-10
- Customs and traditions

#### EAB35 Basic Level 2

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Health and wellbeing

#### EAB36 Basic Level 3

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Culture, culture!

#### **EAB37 Basic Level 4**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Studies, work and future

#### EAB38 Basic Level 5

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Current affairs and the media.

## **EAB39 Continuation to Basic Level 1**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- Our world and sustainable development

#### **EAB310 Continuation to Basic Level 2**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- Internationalism and language skills in further studies. Revision and practice for the matriculation examination.

#### **EAB311 Internationalism**

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- a study excursion to Spain

# Russian, Syllabus B3 (VEB3) and Syllabus B2 (VEB2)

## **VEB31 Introduction to Basic Level 1**

• Easy as Abc or A68! Welcome to the world of the Cyrillic alphabet. In addition to the new letters, we get to know the Russian language area and compare the new language with what we have learned before. Among other things, we learn the most common expressions related to politeness, such as greetings and asking how you are, and we practice other

social encounter situations in everyday life, for example telling basic information about yourself and your family.

## **VEB32 Introduction to Basic Level 2**

The immediate circle is expanded in the direction of the school and the city. We practice
normal conversation situations at school and in our free time, as well as in simple everyday
situations, for example in a shop or a restaurant. We learn to ask for directions and to travel
по-русски [pa-russki].

### VEB33 / VEB21 Introduction to Basic Level 3

 We practice a lot of vocabulary related to free time. Talking about hobbies, clothes and colors are new topics. We practice more expressions related to home, school and everyday life. In this course, we study how to express time in Russian.

#### VEB34 / VEB22 Basic Level 1

• We expand the scope from the local environment to more global topics. The themes are nationality, celebrations, everyday customs and traditions, and comparing cultural

#### VEB35 / VEB23 Basic Level 2

• We practice phrases and vocabulary related to different stages of a person's life. Important themes are well-being and health as well as IT technology, social media and expressing an opinion.

#### VEB36 / VEB24 Basic Level 3

 The main topics of this course are literature, media, music, theater, films. In addition to these themes, we practice more matters related to travel. We can try making oral presentations in this course based on the students' own motivation.

#### VEB37 / VEB25 Basic Level 4

 The main topic of this course is future plans. We practice expressing expressions related to studying at school and possible further studies and working life.

#### VEB38 / VEB26 Basic Level 5

• The course deals with the global world. Important themes are current issues, source criticism, the environment, science, politics and international cooperation.

#### VEB39 / VEB27 Continuation to Basic Level 1

We focus on practicing for the matriculation examination. We will also practice vocabulary
on the themes of different living environments, sustainable lifestyle and internationality. We
also learn about international competence and cooperation, familiarize ourselves with
various international language proficiency assessment systems and the language
proficiency requirements in postgraduate studies, among other things.

#### VEB310 / VEB28 Continuation to Basic Level 2

 International competence and cooperation, familiarization with various international language proficiency assessment systems and language proficiency requirements in postgraduate studies In the course, we delve into target language texts and strengthen language production in different language use situations.

#### **Mathematics**

#### Mathematics course that is common for all students

## **Figures and Equations**

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- Basic calculations, solving a first degree equation and a pair of equations, function, proportionality and percentage calculation
- Getting to know the use of technical aids

#### **Advanced Mathematics**

## **MAA02** Functions and Equations 1

- obligatory / not independently / 3 credits / year 1 / grades 4 10
- The quadratic formula, polynomial function and equation, rational function and equation, root function and equation and power function and equation

## **MAA03 Geometry**

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- Studying similarity and the measurements of figures (length, area, volume, angles)

## **MAA04** Analytical Geometry and vectors

- obligatory / not independently / 3 credits / year 1 / grades 4 10
- Studying equations of point sets and basics of vectors.

# **MAA05** Functions and Equations 2

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- Mathematical models, sine and cosine functions, trigonometric equations, rational exponents, exponential functions and equations, logarithmic functions and equations

#### **MAA06** The Derivative

- obligatory / not independently / 3 credits / year 2 / grades 4 10
- The limit, continuity and derivative of functions

## **MAA07 Integral Calculus**

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- Integral function and the integration of the most important elementary functions
- Calculating areas and volumes with the help of definite integrals.

# **MAA08 Statistics and Probability**

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- Classical and statistical probability, combinatorics, distributions, statistics

#### **MAA09 Economic Mathematics**

- obligatory / not independently / 1 credit / year 2 / grades 4 10
- Arithmetic and geometric sequence, deposits and loans, mathematical models applicable for economic situations

# **MAA10 3D Geometry**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Vectors in a 3D coordinate system, point sets (point, line and plane) and angle in space, a function of two variables

# **MAA11 Algorithms and Number Theory**

- national selective / not independently / 2 credits / year 1-3 / grades 4-10
- The basic terminology of algorithmic thinking (sequence, selection and repetition), coding a simple algorithm, connectives and truth values, divisibility, Euclidean algorithm and congruence.

## **MAA12 Analysis and Continuous Distribution**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Piecewise functions, the continuity and differentiability of functions, inverse functions, limits
  of functions at infinity, improper integrals, continuous distributions, normal distribution and
  normalization.

## **MAA13 Revision Course of Advanced Mathematics**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- We revise the contents of the previous courses and prepare for the matriculation examination.
- We create an overall picture of the level of competence and of what needs to be revised.
   We strengthen the basic skills needed in advanced mathematics.

## MAA14 Remedial Revision Course in Advanced Mathematics

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- We revise the basic topics of advanced mathematics and strengthen the basic skills and answering techniques needed in the matriculation examination.
- Students take this course based on the recommendation of the teacher or the student counselor.

#### **Basic Mathematics**

## **MAB02 Expressions and Equations**

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- Describing problems as equations, solving equations and interpreting solutions
- Quadratic polynomial function and solving a quadratic equation
- Arithmetic and geometric sequence

## MAB03 Geometry

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- The uniformity of patterns
- Right triangle trigonometry and the Pythagorean theorem
- Determining the surface area and volume of shapes and objects

#### **MAB04 Mathematical Models**

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- Creating mathematical models with the help of functions
- Solving exponential equations
- Assessing the functionality of the models

# **MAB05 Statistics and Probability**

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- Processing statistical data and making predictions
- The basics of probability calculation
- Probability calculation models

## MAB06-MAB07 The Basics of Economic Mathematics

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- The basic concepts of economic mathematics
- Enhancing percentage calculation skills
- Arithmetic and geometric sequence and their sums
- Interest calculations
- Taxation and currencies
- Deposits and loans
- Mathematical models suitable for financial situations

## **MAB08 Mathematical Analysis**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Graphical and numerical methods for studying the rate of change of a function
- The utilization of the derivative of a polynomial function in studying the function and the extreme values in the closed interval

# **MAB09 Statistical and Probability Distributions**

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Normal distribution and the concepts of distribution normalization
- Binomial trial and binomial distribution
- The concepts of confidence interval and margin of error

## **MAB10 Revision Course in Basic Mathematics**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- We revise the contents of the previous courses and prepare for the matriculation examination
- We create an overall picture of the level of competence and of what needs to be revised.

#### MAB11 Remedial Course in Basic Mathematics

 A possibility to raise a failed grade from a basic mathematics course. Participation in the course must be discussed with the student counselor in advance.

# **Biology**

# **BI01 Life And Evolution**

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- the signs and basic conditions of life, the basic structure and functioning of a cell, the functioning of evolution and the ecosystem
- the basics of genetic mutation, natural selection and the mechanisms of speciation and their significance
- the structure of the present living organisms and its significance, biology as a science

# **BI02-03 Ecology and the Environment**

obligatory / not independently / 2 credits / year 1 / grades 4 - 10

# The basics of ecology

- the effects of abiotic and biotic environmental factors on the adaptation and distribution of organisms
- the structure and functioning of populations, biocenosis and ecosystems
- biodiversity and its significance

# People's influence on ecosystems

- environmental problems and how to recognise and solve them e.g. through one's own research, the effects of people's actions on the ecosystem
- evaluating one's own actions and motivating them based on the ecological sustainability
- the positive developments in the state of the environment

## **BI04** The Cell and Heredity

- national selective / not independently / 2 credits / year 2 / grades 4-10
- the basic structure of the cell and its central functions
- the basic mechanism of heredity
- studying and interpreting different cells and their structures with the help of a small experiment

## **BI05 Human Biology**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- the structures and functions of organs and organ systems
- homeostasis and factors that affect it
- the communication systems in the human body and senses
- the defense mechanisms the human body has against microbes
- the most central stages of procreation from conception to birth

• planning a small-scale experimental study that measures the functioning of the human body; also the possible realization and presentation of the study and its results

## **BI06 Biotechnology and Its Applications**

- national selective / not independently / 2 credits / year 2-3 / grades 4-10
- the structures and basic functions of different microbes
- nucleic acids and their properties
- the most central applications and innovations in biotechnology and their significance in animal breeding, medicine, industry and environmental conservation
- the possibilities and risks of biotechnology and its ethical aspects
- planning and possibly conducting a small-scale experimental study

# **BI07 Revision Course in Biology**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- getting prepared for the matriculation examination, strengthening one's skills
- forming an overall picture of the biology syllabus

# BI08 The Enchantment of Nature - a Hands-on Course in Biology

- school-specific selective / not independently / 2 credits / year 1-2 / pass/fail
- appreciation of biodiversity and understanding its significance more profoundly
- seeking, observing and studying biodiversity
- diverse practicing of biological study methods
- various topics and projects based on what is current and inspiring

#### BI09 / KE09 Research in Natural Sciences

- school-specific selective / not independently / 2 credits / year 2 / pass/fail
- studying phenomena from the perspective of both chemistry and biology
- · understanding the requirements of scientific research
- getting inspired to conduct scientific research
- performing experiments and writing project reports

## Geography

#### **GE01** The World in Change

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- the evolution of the geographical worldview
- the reasons and consequences of the changes in the environment and the possibility to restrain them and to alleviate the consequences in different areas
- the reasons and consequences of the changes in humankind
- sustainable development and the treaties concerning it
- following and assessing current regional news
- using and interpreting GeoMedia

### **GE02 The Blue Planet**

national selective / not independently / 2 credits / year 1-2 / grades 4-10

- the basic concepts of geography of nature and the interpretation and presentation of knowledge with the help of GeoMedia
- The phenomena caused by the planetarity of the earth and their effects on natural organisms
- the causes and consequences of natural hazards and ways to anticipate them and alleviate their effects in different areas
- the significance of geographical knowledge for society and people's everyday life
- the areas of animate and inanimate nature on earth

### **GE03 The World We Share**

- national selective / not independently / 2 credits / year 1-2 / grades 4-10
- the concepts of human geography and the use of the geomedia
- cultural features and their differences, human rights
- the regional aspects of human action and the dependencies between people and nature in different areas
- the possibilities that natural resources and the environment offer and how they influence people's actions in different areas
- the reasons and consequences of human and environmental risks and the ways how the consequences can be restrained and the effects alleviated in different areas
- the significance of the knowledge from human geography for society, people's everyday lives and one's own actions

#### **GE03 + HI06**

- national selective / not independently / 4 credits / year 2-3 / grades 4-10
- the course deals with the contents of GE3 and HI6
- the goal of the course is to deepen the topics that the courses have in common especially from the cultural perspective, to go on possible excursions and to discuss current issue concerning culture
- one joint course project

## **GE04 Geomedia - Study, Participate and Make a Difference**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- conducting a research, participation or advocacy project which has a local, regional or global aspect
- applying geomedia to geographical research, everyday life and different areas of society, making use of location aware applications
- observing everyday surroundings, interpreting landscapes and maps
- the goals and different levels of regional planning and citizens' possibilities to influence the planning and development of their own environment

# **GE05** Revision Course in Geography

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- getting prepared for the matriculation examination, strengthening one's skills
- forming an overall picture of the geography syllabus

# **GE06** The Geography of Wellbeing - a Hands-on Course

- school-specific selective / not independently / 2 credits / year 2-3 / pass/fail
- topics from developmental geography
- the distribution of welfare both globally and regionally
- strengthening geomedia skills

## **GE07 GIS** in the Bushes - a Hands-on Course

- school-specific selective / not independently / 2 credits / year 2-3 / pass/fail
- revision of basics of cartography and geospatial data
- land use planning and town planning
- geospatial data analyses
- the use of location aware software in presenting and analyzing geomedia
- new trends in mapping
- planning and conducting one's own research

# **Physics**

# FY01 + FY02 Physics As a Science And As a Part of Society

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- quantity, measuring and models, the basics of empirical work
- types of energy and energy production

# FY03 Energia ja lämpö

- national selective / not independently / 2 credits / year 1 / grades 4-10
- force and mechanical work
- thermodynamic quantities and state variables
- conservation of energy in thermal phenomena

## **FY04 Force and Movement**

- national selective / not independently / 2 credits / year 1 / grades 4-10
- studying phenomena of movement
- Newton's laws, the effect of different forces on the movement of objects
- types of energy in mechanics
- collisions

# **FY05 Periodic Movement and Waves**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- the basics of rotation and circular motion
- the universal law of gravitation
- studying periodic motion and wave motion

## **FY06 Electricity**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- direct current circuits
- electrostatics
- components in electronics

## **FY07 Electromagnetism and Light**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- magnetic interaction and magnetic field
- the physical basis of electric energy production and transmission
- electromagnetic radiation

### FY08 Matter, Radiation and Quantization

- national selective / not independently / 2 credits / year 3 / grades 4-10
- ionizing radiation
- quantization and nuclear reactions

# **FY09 Revision Course in Physics**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- creating an overall picture of physics and preparing for the matriculation examination

#### **FY10 Science Excursion to CERN**

- school-specific selective / not independently / 2 credits / year 2-3 / pass/fail
- familiarization with the operation of particle accelerators and the standard model of particle physics
- a visit to CERN in Geneva

# **FY11 The Basics of Astronomy and Cosmology** possibly in 2024-25?

- school-specific selective / can be completed independently / 2 credits / year 1-3 / pass/fail
- the structures of the universe
- observation and measurement methods in astronomy
- the fundamentals of cosmology

## Chemistry

# **KE01+KE02 Chemistry for Everyone**

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- evaluation of the safety of everyday substances and the importance of chemistry in our lives
- the periodic table, the structure of substances by using models and formulas
- strong and weak bonds and polarity of elements and compounds
- substance amount and concentration.

#### **KE03 Molecules and Models**

- national selective / not independently / 2 credits / year 1 / grades 4-10
- the functional groups of organic compounds and the basis of naming them
- modeling the structure of organic compounds and explaining the properties by using the structure
- the quantum mechanical atomic model
- getting to know the information spectra give about the structure of matter

## **KE04 Chemical Reaction**

national selective / not independently / 2 credits / year 2 / grades 4-10

- the reactions of inorganic and organic compounds and their applications
- the variety and importance of chemical reactions in our environment

# **KE05 Chemical Energy and Circular Economy**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- the conservation of energy and energy changes in chemical reactions
- the properties of metals and the environmental effects of manufacturing and processing processes
- oxidation-reduction reactions and the fundamentals of electrochemistry

#### **KE06 Chemical Balance**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- the speed of a chemical reaction and the factors affecting it
- acids and bases
- the computational treatment of acid-base balance and the working principle of buffer solutions

# **KE07 Revision Course in Chemistry**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- Creating an overall picture of chemistry and preparing for the matriculation examination

# **KE08 Experimental Chemistry**

- school-specific selective / not independently / 2 credits / year 2 / pass/fail
- deepening the knowledge of chemistry by means of experimental work
- doing laboratory work and practicing oral and written reporting
- if possible,making a visit to a university or a company in the field of chemistry

## **KE09 Research in Natural Sciences**

- school-specific selective / not independently / 2 credits / year 2 / pass/fail
- studying phenomena from the perspective of both chemistry and biology
- understanding the requirements of scientific research
- · getting inspired to conduct scientific research
- performing experiments and writing project reports

# **History**

# HI01 People, the Environment and History

• obligatory / not independently / 2 credits / year 1 / grades 4 - 10

During this course, we study people's relation to the environment as well as societal development from ancient times until the present time. The perspective of the instruction is based on studying historical phenomena and explaining the present time. The phenomena are studied from both the European and global perspective. We learn about the development and central changes of societal-economic structures and about social and environmental history from the beginning of agriculture to the present time. We practice the use of historical sources in many ways during the course.

#### **HI02 International Relations**

obligatory / can be completed independently / 2 credits / year 2 / grades 4 - 10

During this course, we study the central phenomena of international politics, changes in power relations and their backgrounds from the late 19th century to the present time. We analyze international politics from both economic and ideological perspectives. The central topics are the tension between confrontation and cooperation, the pursuit of international balance and security and the mutual competition between different political systems. We deepen the skills of data retrieval, analysis and production and learn about interpreting and evaluating different types of sources.

## HI03 The History of Independent Finland

obligatory / can be completed independently / 2 credits / year 2 / grades 4 - 10

During this course, we analyze the central changes and trends and their backgrounds in Finnish history from the end of the Autonomy until the present time. The central topics are the changes in Finland's governmental and international status and the crises connected with them, transferring from class society into democratic civil society and political, economic and cultural turning points. We learn about different sources of Finland's history, changing interpretations and the use of historical knowledge. In addition, we deepen the understanding of historical empathy.

# **HI04 The European**

• national selective / can be completed independently / 2 credits / year 1-2 / grades 4-10 During this course, we study the development of societal thinking, ideologies and human rights as well as different explanations of the world from Antiquity to modern times. We learn about the worldview, cultural heritage, art and science and how they manifest their eras in Europe. The topics to study are the European person, the relationship between the individual and society and gender and everyday life.

#### HI05 From the Eastern Part of Sweden to Finland

• national selective / can be completed independently / 2 credits / year 1-2 / grades 4-10 During this course, we study the development of modern Finland's area as part of the history of the Baltic area from prehistoric times to the Autonomy. We learn about society, economy and the environment as well as about the interaction between communities and individuals, everyday history, people's lifestyles and livelihoods during different stages of history. We deepen our knowledge of historical sources and different research methods.

### HI06 Encounters between World Cultures

• national selective / can be completed independently / 2 credits / year 2-3 / grades 4-10 During this course, we study concepts connected with culture and changes in how we think about cultural differences. We also study how people's opinions about different cultures have changed as thinking and societies have changed. We study the encounters and interaction between western and other cultures during history.

- national selective / not independently / 4 credits / year 2-3 / grades 4-10
- the course deals with the contents of GE3 and HI6.
- the goal of the course is to deepen the topics that the courses have in common especially from the cultural perspective, to go on possible excursions and to discuss current issue concerning culture
- one joint course project

# **HI07 Revision Course in History**

• school-specific selective / not independently / 2 credits / year 3 / pass/fail

We prepare for the matriculation examination in history by revising the contents of the previous courses and by practicing the skills of the subject such as interpreting various data, analytical thinking and scientific expression.

## **HI08 American History**

school-specific selective / not independently / 2 credits / year 2-3 / pass/fail

During this course, we study the most central trends in American history especially from the perspectives of cultural, economic and political history. In addition, we practice methods of data retrieval and how to produce and present scientific information both orally and in writing.

#### Social studies

## **YH01 Finnish Society**

obligatory / not independently / 2 credits / year 2 / grades 4 - 10

We study the social, demographic and institutional structures of Finnish society from the perspective of social studies. We ponder ideas of democracy, the rule of law and welfare state and learn about the institutions that guide society such as parliament, political parties and the media.

#### **YH02 Economics**

• obligatory / can be completed independently / 2 credits / year 2 / grades 4 - 10

We study the economy as a societal phenomenon from the point of view of economics. We learn about topics such as being a consumer, demand, companies and the market, money and the financial market, public economy and economic influence. With the help of these topics we build an overall picture of how the economy works and how it influences society.

## YH03 Finland, Europe and the Changing World

obligatory / can be completed independently / 2 credits / year 2-3 / grades 4 - 10

We study the societal aspects of globalization. We deepen our knowledge of the common European cultural features, the European Union, Europe's economy and security and we have a closer look at international relations on a larger scale.

## YH04 Legal Knowledge

national selective / not independently / 2 credits / year 2-3 / grades 4-10

We learn about the principles and functions of the legal system concentrating on the legislation that is essential for the individual citizen. The topics include the constitution and other central legal norms, how the courts work and such branches of legislation as consumer protection, labor laws and laws concerning housing.

#### YH05 Revision Course in Social Studies

school-specific selective / not independently / 2 credits / year 3 / pass/fail

We prepare for the matriculation examination in social studies by revising the contents of the previous courses and by practicing the skills of the subject such as interpreting various data, source valuation and scientific expression.

### **YH06 World Politics**

• school-specific selective / not independently / 2 credits / year 2-3 / pass/fail

We have a look at the history of international relations and the most central current events in world politics. At the same time we learn about international media and attempt to build an understanding of the present state of world politics. The course is taught as a cooperation of several teachers and subjects (history, philosophy, social studies, religion). The lessons deal with current phenomena observed from the perspectives of different sciences.

# YH07 Investment School for Upper Secondary School Students

school-specific selective / not independently / 2 credits / year 1-3 / pass/fail

We learn about saving in shares and the basics of investing. The course lasts for 2.5 years and it consists of monthly meetings where we look at different phenomena in the economy from the viewpoint of investing and we practice financial skills. We may visit national events and companies in the investment branch. During the course it is possible to put one's own investment plan into practice, but that is not required for passing the course.

# **Religion (Evangelical Lutheran)**

# UE01 Religion as a Phenomenon - Investigating Judaism, Christianity and Islam

- obligatory / not independently / 2 credits / year 1 / grades 4 - 10

We study religion as a phenomenon, the relationship between religion and science and the religious situation in the world. We discuss the aspects of religiousness and irreligiousness in the present time and the significance of religious freedom. We also learn about the birth, cultural background and special features of Judaism, Christianity and Islam as well as the common aspects of these three religions.

## **UE02 Global Christianity**

obligatory / can be completed independently / 2 credits / year 2 / grades 4 - 10

This course deals with the status and interaction Christianity has with the surrounding culture in different parts of the world. The following aspects are also acknowledged: the beginning of denominations, their special features, ethical thinking and societal influences. Current Christian themes are discussed such as Christianity in relation to environmental questions, ecumenism and charismatic Christianity.

## **UE03 World Religions and Religious Movements**

• national selective / can be completed independently / 2 credits / year 1-2 / grades 4-10

Among other things we study Hinduism, Jainism, Sikhism and Buddhism as well as the birth, central doctrines and societal status of religions in China and Japan. Religions are also discussed from the perspective of lived and experienced religion. During this interesting course we also learn about animist religions and the central aspects and backgrounds of new religious movements.

## UE04 Religion, Culture and Society in Finland.

• national selective / can be completed independently / 2 credits / year 2 / grades 4-10

We learn about the cultural heritage of religion in Finland and the interaction between religion and society in Finland. We discuss current issues that concern for example freedom of religion, criticism of religions, religious dialogue and irreligiousness. We may also visit different religious communities working in Finland and look at how religion works in different sectors of society.

# **UE05** Religion in Arts and Popular Culture

national selective / can be compelted independently / 2 credits / year 2 / grades 4-10

We learn about the interaction between religion and art and the different forms of religious art. We also look at religious themes in popular culture. During this interesting course we also practice interpreting art with the help of symbols and myths.

## **UE06** Religion, Science and the Media

national selective / can be completed independently / 2 credits / year 2-3 / grades 4-10

We look at the current standpoints and methods in the different fields of the study of religions: religious studies and theology, study of art, culture and society. We also discuss the religious media and the use of the media in religions. We follow the media coverage of religions actively and discuss the power, accountability and ethics of the media from the perspective of religions.

## **UE07 Revision Course in Religion**

school-specific selective / not independently / 2 credits / year 3 / pass/fail

During the revision course, we revise and practice for the matriculation examination in religion. We study how to answer the assignments in the exam, what kind of assignments the exam has and how to revise the contents of the courses in religion. We emphasize the most central topics in the religion syllabus and practice constructing an answer.

# **UE08** The world of human relationships

school-specific selective / not independently / 2 credits / year 1-3 / pass/fail

This course consists of a weekend long course event outside school and several meetings before that. During the course we discuss topics such as self-image, self-esteem, personal and shared space and different issues concerning human relationships. We practice interaction situations and their challenges in different kinds of human relationships.

# **Philosophy**

# FI01 Introduction to Philosophical Thinking

obligatory / not independently / 2 credits / year 1 / grades 4 - 10

The goal of the first course in philosophy is to learn about the nature, basic topics and principles of argumentation in philosophy. The main goal of the course is to develop one's thinking skills.

#### FI02 Ethics

obligatory / not independently / 2 credits / year 2 / grades 4 - 10

The second course in philosophy includes the central issues, concepts and theories in philosophical ethics. We study how to justify ethical arguments, how to explain one's life choices with the concepts used in ethics and how to apply the concepts to current issues concerning society and the environment.

# FI03 Social Philosophy

national selective / can be completed independently / 2 credits / year 2 / grades 4-10

During the third course in philosophy, we look widely at the different aspects of society, learn the central concepts of social philosophy and how to analyze the concepts of justice, freedom, equality and power that communities and institutions are built on. The goal is that the student can use philosophy to assess rights and structures in society and current societal debates. Studying social philosophy develops the students' judgment and helps them to create a perception of themselves as an individual and a citizen.

#### FI04 The Truth

• national selective / can be completed independently / 2 credits / year 2 / grades 4-10

The fourth course in philosophy includes philosophical questions of language, knowledge, reality and science especially from the viewpoint of truth. This course integrates different subjects in upper secondary school and helps the student understand how knowledge is constructed in different subjects and what similarities and differences exist between the subjects.

# FI05 Revision Course in Philosophy

• school-specific selective / not independently / 2 credits / year 3 / pass/fail

We prepare for the matriculation examination in philosophy by revising the central topics in philosophy and by practicing answering techniques.

#### **Ethics studies**

# ET01 A Good Life and Me

obligatory / not independently / 2 credits / year 1-2 / grades 4 - 10

We study the concepts of the self, view of life and worldview and we discuss the factors and models of a good life. We also discuss for example different ideas of man, the ways in which an individual or a community can make a difference, questions about identity and gender as well as the basic questions of being a human being.

## ET02 Society and Me

• obligatory / can be completed independently / 2 credits / year 1-2 / grades 4 - 10

We learn critical thinking and practice justifying arguments rationally. We also discuss factors influencing worldviews and for example the scientific foundations of social activity and active citizenship, social criticism and the basic principles of society and social activity. We also learn about the effects an individual's or society's choices have and the factors influencing the realization of human rights.

### **ET03 Cultures**

national selective / independently / 2 credits / year 1-3 / grades 4-10 / (not in 2024-25)

We discuss the concept and significance of culture and culture as a human activity based on cultural meanings. We study different theories about culture and different forms of cultural heritage. We also learn about the Unesco Cultural Heritage Program, how Finnish culture and minority cultures are formed and multiculturalism.

### **ET04 Beliefs**

national selective / independently / 2 credits / year 1-3 / grades 4-10 / not in 2024-25

We learn about the concepts of different beliefs, the nature of questions concerning beliefs and how beliefs have formed in humanity. We also discuss for example how beliefs manifest in lifestyles and society.

# ET05 Religions and irreligiousness

national selective / independently / 2 credits / year 1-3 / grades 4-10 / not in 2024-25

We study the concepts which help us to understand central religious phenomena. We learn about the historic and geographic distribution and teachings of Christianity, Islam, Buddhism and Hinduism. We also study the general features of East-Asian worldview traditions and the different manifestations of religions and irreligiousness.

#### ET06 The Future

national selective / independently / 2 credits / year 1-3 / grades 4-10 / not in 2024-25

We learn about futurology and discuss for example probable and desirable future scenarios. We also look at the influences that the development of science, technology and digitalisation have and the changes that take place in different societal structures. Fictional narratives, utopias and dystopias concerning the future are also discussed.

# **ET07 The World of Human Relationships**

• school-specific selective / not independently / 2 credits / year 1-3 / pass/fail

This course consists of a weekend long course event outside school and several meetings before that. During the course we discuss topics such as self-image, self-esteem, personal and shared space and different issues concerning human relationships. We practice interaction situations and their challenges in different kinds of human relationships.

# **Psychology**

# **PS01 Behavior, Mind and Learning**

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- An introduction to psychology as a science and to the psychological method of explaining human behavior
- The psychology of learning in brief.

# **PS02 Human Development**

- national selective / not independently / 2 credits / year 1-2 / grades 4-10
- Human development from infancy to adulthood in the light of developmental psychology.

## PS03 Cognitive processes and the brain

- national selective / not independently / 2 credits / year 2 / grades 4-10
- The central topics are cognitive psychology (perception, attention, memory, language and decision-making) and the fundamentals of the nervous system.

#### **PS04 Emotions and Mental Health**

- national selective / not independently / 2 credits / year 2 / grades 4-10
- Psychology of emotions, mental health, mental disorders and psychotherapy

# PS05 Individual differences and social psychology

- national selective / not independently / 2 credits / year 3 / grades 4-10
- Psychology of individual differences (personality and intelligence) and the fundamentals of social psychology.

## **PS06 Revision Course in Psychology**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- A revision course where we prepare for the matriculation examination in psychology by practicing psychological thinking skills and revising the central topics of the psychology syllabus.

### **PS07 Patterns of Interaction**

- school-specific selective / not independently / 2 credits / year 2-3 / pass/fail
- An interactive hands-on course where we actively study themes concerning for example romantic relationships, friendship, psychotherapy and leadership from the point of view of interaction and human relationships. You can take this course if you have passed course PS1, other studies in psychology are not a requirement for participation.

## **PS08 Social Reality and Psychological Research**

- school-specific selective / can be completed independently / 2 credits / year 3 / pass/fail
- Basic knowledge of social psychology, psychology of working in groups and research methods are studied with the help of a small-scale research project or a functional intervention. This course is recommended to those who take the matriculation examination in psychology.

## **Health Education**

#### **TE01 Health as an Asset**

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- The comprehensiveness of health: the central factors defining health, socio-psychological models and phenomena in health culture. The central factors in physical and mental wellbeing: lifestyle, sexual health, mental health and wellbeing during studies.

#### **TE02** Health and the Environment

- national selective / not independently / 2 credits / year 1-2 / grades 4-10
- Health and the environment, acquiring information about health and evaluating and interpreting the information, the soundness and safety of the environment, satisfaction and addiction.

# **TE03 Health and society**

- national selective / not independently / 2 credits / year 2-3 / grades 4-10
- Health and society, promoting health and preventing diseases in different eras, diseases and their treatments, ethical questions.

## **TE04 Revision Course in Health Education**

- school-specific selective / not independently / 2 credits / year 2-3 / pass/fail
- We revise the contents of obligatory and selective courses, we look at practical advice for the matriculation examination, we develop skills in applying, evaluating, interpreting and creating information and we develop argumentation skills.

## **TE05 Health and Safety Skills**

- school-specific selective / not independently / 2 credits / year 2-3 / pass/fail
- Physical and mental factors affecting safety, coping skills, central practical safety and first aid skills and self-care skills

### Visual art

## **KU01 Our Own Pictures, Shared Cultures**

- obligatory / not independently / 2 credits / year 1-2 / grades 4 10
- The central topics of the course are the student's own pictures, the analysis of pictures in art, art history and practicing various techniques.

# KU02 The Spaces, Places and Phenomena of the Environment

- obligatory / not independently / 2 credits / year 1-3 / grades 4 10
- Getting to know more about architecture, constructed environment, environmental art and design

# KU03 A Picture Tells a Message and Makes a Difference

- national selective / not independently / 2 credits / year 1-3 / grades 4-10
- We learn about media art and graphic design as well as producing, editing and presenting pictures digitally and in other ways.

#### **KU04 The Various Worlds of Art**

- national selective / not independently / 2 credits / year 1-3 / grades 4-10
- We plan and carry out a modern art project, which combines different art forms. The course contains art history, contemporary art, research and artistic work individually or in groups.

## **KU05 Painting Workshop**

- school-specific selective / can be completed independently / 2 credits / year 1-3 / pass/fail
- The course consists of water color, acrylic and oil painting, color theory, practicing various techniques and art history. The course focuses on strengthening the student's own artistic expression and on experiencing the relaxing effect of painting.

## **KU06 Graphic Arts Workshop**

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- We study the methods and possibilities of expression of traditional graphic arts. We use various methods to make printing blocks that are used for making prints on paper. We use intaglio, relief and letterpress printing methods. The student gets to know printmakers and their works, as well as the position of printmaking in the field of art.

## **KU07 Drawing Workshop**

- school-specific selective / can be completed independently / 2 credits / year 1-3 / pass/fail
- The student learns about drawing techniques and equipment as well as about constructing and composing a picture. We practice for example croquis drawing and making a portrait.

## **KU08 Ceramics and Sculpture Workshop**

- school-specific selective / can be completed independently / 2 credits / year 1-3 / pass/fail
- We look at different 3D techniques, materials and the possibilities they offer. The students create 3D works from various materials. The students develop their own expression, generate ideas, make sketches and carry out a work or a series of works. They learn about sculpture and ceramics in different eras.

# **KULD2** The Upper Secondary School Diploma in Visual Arts

- national selective / independently / 2 credits / year 3 / grades 4-10
- The task options defined by the Board of Education change every year. The diploma consists of a work and a portfolio containing a description of the working process, self-evaluation and knowledge of visual arts and other visual culture.

## Physical education

# LI01 Learning by Physical Education

- obligatory / not independently / 2 credits / year 1 / grades 4 10
- Revision and strengthening of basic exercise skills

### LI02 An Active Life

- obligatory / not independently / 2 credits / year 2 / grades 4 10
- making exercise a constant part of life

# **LI03 New Opportunities**

- national selective / not independently / 2 credits / year 1-3 / grades 4-10
- Getting to know new sports and finding one that suits you.

## LI04 Exercising Together

- national selective / not independently / 2 credits / year 2 / grades 4-10
- A project, for example the second year formal dance or tutoring in the Liikkuva lukio program

## LI05 Recreation through Exercise

- national selective / not independently / 2 credits / year 1-3 / grades 4-10
- Making your own exercise plan and following it in order to support your wellbeing and ability to study

## LI06 Relaxation and Exercise for Recreation

- school-specific selective / not independently / 2 credits / year 2-3 / pass/fail
- different relaxation techniques and exercise for recreation

# LI07 The Gym

- school-specific selective / independently / 2 credits / year 1-3 / pass/fail
- Following your own gym program

#### LI08 Ball Games

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- A great variety of ball games both indoors and outdoors

## LI09 Coaching 1

- school-specific selective / independently / 2 credits / year 1-3 / pass/fail / only one coaching course per school year
- Sports team training, your own team to coach, coaching courses

## LI10 Coaching 2

- school-specific selective / independently / 2 credits / year 2-3 / pass/fail / only one coaching course per school year
- Sports team training, your own team to coach, coaching courses

## LI11 Coaching 3

- school-specific selective / independently / 2 credits / year 3 / pass/fail / only one coaching course per school year
- Sports team training, your own team to coach, coaching courses

# LILD4 The Upper Secondary School Diploma in Sports

- national selective / partly independently / 2 credits / year 1-3 / grades 4-10 and pass/fail
- An assignment carried out according to the national instructions

#### Music

# MU01 Intro - Bring the music to life

- obligatory / not independently / 2 credits / year 1-2 / grades 4 10
- We study the basics of the theory and history of music and different instruments. The focus is on playing music together.

## MU02 Beat - Expressive sound

- national selective / not independently / 2 credits / year 1-2 / grades 4-10
- The students deepen their knowledge of the topics that were studied in course MU01. We learn about the different genres and history of Finnish music.

## **MU03 Genre - Global Curiosity**

- national selective / not independently / 2 credits / year 2-3 / grades 4-10
- The students get to use their creativity and interaction skills widely through making music in groups. The students learn to understand the typical features of different genres.

# **MU04 Demo - Together Creatively**

- national selective / not independently / 2 credits / year 2-3 / pass/fail
- The students get to use their creativity and interaction skills widely through making music in groups. We focus on for example TV and film music and music used in games.

# **MU06 Studio - Recording Sounds**

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- We learn about the basics of recording and studio work. We look at the use of a mixer and how to mix music in both live and studio situations, we practice adding microphones to different instruments and we record a few songs.

# **MULD6 The Upper Secondary School Diploma in Music**

 national selective / independently / 2 credits / year 2-3 / grades 4-10 and a statement from the evaluating teachers • Students give a demonstration of their special skills and interest in music. They carry out a project showing their proficiency in music both in theory and practice or they compile a portfolio of their music studies and activities during upper secondary school.

### **Drama**

#### **DR01 Introduction to Drama**

- school-specific selective / not independently / 2 credits / year 1-3 / pass/fail
- The course contains a great variety of basic drama practice and also a bit more challenging drama processes. We do a lot, e.g. improvisation and procedural drama. The exercises give students confidence to perform and alleviate the fear of making mistakes. An enjoyable and relaxed course!

# **DR02** Film as a Means of Expression

- school-specific selective / not independently / 4 credits / year 1-3 / pass/fail
- We learn about the complex process of making movies and the history of movies. The
  product is a short film made by the students. You can work as a screenwriter, director, actor,
  cinematographer, make-up artist, costume designer, set designer, editor, in sounds and
  music, graphic designer etc.

# **Student Counseling**

#### **OP01 Me as a Student**

- obligatory / not independently / 2 credits / year 1-3 / pass/fail
- The students familiarize themselves with upper secondary school studies and assume an
  active and involved role in their own studies. From the very beginning of their studies, they
  are encouraged to think about and to work on mapping their educational opportunities and
  career choice after upper secondary school.

# **OP02 Further Studies, Working Life and Future**

- obligatory / not independently / 2 credits / year 2 / pass/fail
- The students deepen their knowledge of their strengths as well as postgraduate studies, working life, job search and international further education opportunities.

# **OP03 Tutoring**

- school-specific selective / not independently / 2 credits / year 2 / pass/fail
- The students are able to act as guides for the high school studies of the group of students starting upper secondary school in the fall. The students get the opportunity to develop their own organizational skills and learn the knowledge and skills needed in educational marketing and representation tasks.

# **OP04 Tutoring (second year)**

- school-specific selective / not independently / 2 credits / year 3 / pass/fail
- The students are able to act as guides for the high school studies of the group of students starting upper secondary school in the fall. The students get the opportunity to develop their

own organizational skills and learn the knowledge and skills needed in educational marketing and representation tasks.

# **OP05 Getting to Know Working Life**

- school-specific selective / independently / 1 credit / year 3 / pass/fail
- The students learn about practices in working life in a company of their own choosing.

# Entrepreneurship

## YR01 24h Entrepreneurship Camp

school-specific selective / not independently / 2 credits / year 1 / pass/fail

The course consists of a one-day camp and a preliminary assignment or a final report. The main content of the course consists of assignments performed during the camp. The assignments are related to the practical challenges of business operations, the development of a business idea and the skills required of an entrepreneur. The course can be carried out in cooperation with other secondary education institutions. In addition, we can cooperate with universities. The course is based on the national NY 24h camp program and it serves as an excellent basis for the Year as an Entrepreneur course in the second academic year.

# YR02 The Basics of Entrepreneurship

school-specific selective / not independently / 2 credits / year 2 / pass/fail

During the course, the students draw up a plan to create their own business model. In addition, there is working life cooperation and, where possible, higher education cooperation. The course includes visits to the school by entrepreneurs as well as visits to companies by students.

## YR03 A Year as an Entrepreneur

• school-specific selective / not independently / 4 credits / year 2/ pass/fail

We make a plan in order to create a business model. In addition, we carry out working life cooperation and, where possible, higher education cooperation. The course includes visits to the school by entrepreneurs as well as visits to companies by students. The course is carried out based on the national Year as an entrepreneur program.

#### **YR04** Entrepreneurial Tutoring

school-specific selective / not independently / 2 credits / year 2 / pass/fail

The course consists of a day-long 24-hour camp and its advance planning. The main content of the course consists of guiding the camp assignments related to the practical challenges of business operations, the development of a business idea and the development of the skills required of an entrepreneur. The course is based on the program of the national NY 24h camp and can be implemented in cooperation with other secondary education institutions or universities. In

practice, the completion of the course requires the completion of the Year as an entrepreneur course (YR3) or participation in a 24-hour camp (YR1).

## YR05 Entrepreneurial Skills

school-specific selective / independently / 2 credits / year 2-3 / pass/fail

In the course, we get to know entrepreneurship in general and learn about initiative, planning, creating ideas and creativity. The students' readiness to act as entrepreneurs is developed through the study of information packages, assignments and various examples and models. Entrepreneurship is introduced as a possible career option and skills important for working as an entrepreneur are developed, such as sales and customer service skills, understanding ethically sustainable business and identifying the general operating conditions of entrepreneurship. In addition, business operations are examined from the point of view of financial indicators and financial significance. The course is completed independently, but there is a common starting session to guide the completion. The course is based on TAT's business courses and the Young Entrepreneurship Association's Year as an Entrepreneur program, and the course is part of TAT's business year package. However, the course can be completed regardless of these.

# YR06 Managing Your Own Finances

school-specific selective / independently / 2 credits / year 2-3 / pass/fail

The course focuses on managing your own finances. The course encourages the students to understand the phenomena of the global economy around them and the importance of managing their own finances as well as to understand the importance of the economy to society. The students learn to strengthen their skills in, among other things, making their own purchase decisions, investing, saving and taking insurances. The course is completed independently, but there is a common starting session to guide the completion. The course is based on TAT's business courses and the Young Entrepreneurship Association's Year as an Entrepreneur program, and the course is part of TAT's business year package. However, the course can be completed regardless of these.

## **Thematic Studies**

### **TO1 Orientation Studies**

school-specific selective / not independently / 2 credits / year / pass/fail

First-year students get a versatile orientation to upper secondary studies, learn to use and utilize different learning environments and programs, and already in the initial phase of their studies receive comprehensive information to support the planning of their studies.

#### **TO2 Continuation to Orientation Studies**

school-specific selective / not independently / 1 credit / year 1 / pass/fail

The course deepens the study methods of different subjects and practices scheduling and introduces central tools that facilitate the progress of studies.

## **TO3 Learning Skills**

school-specific selective / not independently / 2 credits / year 1-2 / pass/fail

The goal of the course is to help the students succeed in their high school studies by applying the best knowledge and insights in the psychology of learning. We discuss time use, effective study strategies, maintaining motivation and stress management according to the students' wishes. We practice study methods that work in different subjects.

## **TO4 Culture Passport**

• school-specific selective / can be completed independently / 2 credits / year 1-3 / pass/fail

During one school year, the students attend or participate in various cultural events and events, possibly using technology, for example. The goal is to have diverse cultural experiences and thus to see culture also as part of well-being and participation.

# **TO5 Working Life Skills**

• school-specific selective / independently / 2 credits / year 1-3 / pass/fail

You will get to know Finnish and international working life in general, and you will learn versatile skills that are essential for both current and future working life, such as interaction skills, essential working life skills and skills related to your own well-being at work. The students' readiness to act in the working life in the future develops with the help of information packages, assignments and studying various examples and models. The course is completed independently, but there can be a common starting session to guide the completion. The course is based on TAT's business courses, and the study course is part of TAT's business year course.

### **TO6 Aviation Studies**

school-specific selective / not independently / 7 credits / year 1-2 / pass/fail

The theory training program studied for the Private Pilot's (PPL A) license is studied during this course. The theory package is studied during one academic year in such a way that it includes five eight-hour classroom teaching days and about 100 hours of independent study in addition to that. Teaching takes place mainly in the school premises and in the premises of the airport located in the immediate vicinity of the school.

## **TO7 International Cultural Exchange 1**

school-specific selective / not independently / 1 credit / year 1-3 / pass/fail

The aim of the course is to strengthen different foreign language skills and use them in authentic interaction situations. The course is completed by being actively involved in the school's international activities, for example by hosting international guests and participating in the implementation of the visit programs.

# **TO8 International Cultural Exchange 2**

• school-specific selective / not independently / 2 credits / year 1-3 / pass/fail

The aim of the course is to strengthen and use language skills in Spanish, German, French or Russian in real interaction situations. We get to know an area which uses the target language more thoroughly. The course includes a study excursion to a country using the target language as well as planning and preparing the excursion together and making a portfolio after the trip.