

In 5 LAIS (9th grade) students study the following / are supposed to reach the following levels:

(This is just an extract from the curriculum!)

English first language

English first language is a course that is aimed at students who are native or near-native speakers of the English language or who have a high command to the English language. It is designed to prepare students for grade 10 English as well as for the IB Diploma Programme (grade 11 and 12: English A Language and Literature Higher Level or Standard Level).

General Objectives:

- Communicating with increasing maturity, logic and clarity in written, verbal and representing forms.
- Examining a variety of thoughts that will expand their understanding of themselves, others and the societal values that impress upon their lives.
- Recognizing and understanding the meaning, power and use of language.
- Developing and supporting critical, analytical and aesthetic judgements formed from personal interaction with literature and media.
- Increasing awareness and appreciation of Universal Literature and how each culture reflects a separate and distinct identity.

Units of study:

- Analyses of a great variety of literary and non-literary texts
- Rhetorical devices and terms
- Global issues
- Critical thinking
- Presentations
- Discussions

English second language

Level A2 - B1

Grammar:

- Tenses: present, future, past, present perfect, past perfect + progressive forms
- Conditionals: 1, 2 and 3
- Adjectives: comparatives, superlatives
- Adverbs
- Passive Voice
- Reported Speech
- Quantities
- Articles
- Modal verbs

Writing:

Describing people, e-mails, blog, blog comment, paragraph writing, stories, describing places, biographies, formal and informal letters, discussing pros and cons, reviews

Listening and Reading:

Level A2 - B1

Speaking:

Discussions, role plays, group work, exchanging information, expressing opinion, agreeing and disagreeing, telling stories, comparing things

German second language

Level A1-A2

Listening (A1-A2): understand simple sentences, phrases of everyday life

Spoken Interaction (A1-A2): simple conversation about familiar topics (e.g. food and beverages, youth, sports, leisure, school life); small talk

Speaking (A1): describe people, objects and situations in simple phrases and sentences; sounds, spelling, pronunciation

Reading (A2): able to read short texts of any genre, extract information out of texts of everyday life, understand short personal letters, dialogues, e-mails

Writing (A2): write short notes, personal letters, e-mails, dialogues

Grammar:

- Nouns: declination, cases (Nominativ and Akkusativ), singular, plural
- Verbs: present tense, auxiliary verbs, modal verbs, separable verbs, imperative, future, past tenses (Perfekt und Präteritum)
- Pronouns: personal pronouns, possessive pronouns
- Adjectives: declination, comparison
- Article: definite, indefinite
- Prepositions
- Adverbs
- Sentences: declarative, question, negation, subordinate clauses (e.g. weil, deshalb), phrases

German first language**Oral competence:**

- Understand and actively participate in communicative processes

- presentation, discussion, respectful use of language

Writing competence:

- writing different text types (summary, argumentative writing, letters, ...)
- optimising own texts
- language correctness and writing accuracy, spelling

Text competence:

- reading for various purposes
- interpreting texts/understanding the meaning of texts
- evaluating texts

Literature:

- genres, types of texts (enumerate, recognise, classify, examples)
- historical and cultural contexts of texts
- characteristics of literary texts

Media:

- extracting relevant information from different media formats
- functions and impacts of media

Spanish second language

Gramática:

- verbos regulares, irregulares y reflexivos en presente
- pronombres interrogativos
- artículos
- negación
- números
- pronombres posesivos
- el verbo 'gustar'
- hay/ser/estar
- objeto directo e indirecto
- comparación
- Pretérito Perfecto
- Futuro Próximo

Temas:

- saludar, presentarse, despedirse
- deletrear
- países hispanohablantes
- describir mi casa (habitaciones + mobiliario)
- relaciones familiares /personales

- describir a personas : aspecto físico + carácter
- la ropa
- la hora + horarios
- en la tienda / en el supermercado – comprar productos
- pedir información especial
- medios de transporte
- expresar gustos y preferencias
- concertar una cita, hablar de planes
- dar consejos
- en un restaurante – pedir comida y bebida
- hablar del tiempo libre
- hablar del pasado

Physics

- SI Units, scientific notation and modelling in physics
- Kinematics: motion
apply a set of formulas on simple motion situations; sketch several types of graphs to represent simple motion situations (s-t, v-t and a-t) graphs, free fall, free fall and air resistance (Felix Baumgartner free fall analysis)
Using mobile phones, light gates and Data loggers to get a closer view into how to get quantitative information out of experiments
- Forces and Newton's laws; create free body diagrams, solve problems / calculations
- Distinguish Energy and work, Power, Force and momentum, conservation of momentum, the impulse, solve problems / calculations
- Kinetic energy and (gravitational) potential energy, other forms of energy, conservation of energy, energy transformation, solve problems / calculations

Mathematics

REAL NUMBERS

- Family tree of numbers (revision)
- Square roots (revision)
- Cube roots
- Very small and very large numbers (standard form)

ALGEBRA (revision)

- An introduction to algebra
- Simplifying algebraic expressions
 - ✓ Adding and subtracting algebraic expressions
 - ✓ Multiplying and dividing terms
 - ✓ Multiplying algebraic expressions
 - ✓ Binomial expansion
 - ✓ Factorising algebraic expressions
 - ✓ Dividing algebraic expressions (by a monomial)

LINEAR EQUATIONS IN ONE VARIABLE

- Introduction (What is an equation?)
- Solving equations
- Writing equations to solve word problems
- Solving equations that contain algebraic fractions

QUADRATIC EQUATIONS

- Solving quadratic equations by completing the square
- Solving quadratic equations by using a formula
- Writing quadratic equations from a solution set
- Solving problems using quadratic equations

FUNCTIONS

- An introduction to functions
- Linear functions
 - ✓ Graph
 - ✓ Characteristics
- Non-linear functions

LINEAR SIMULTANEOUS EQUATIONS

- Using graphs to solve simultaneous equations
- Solving simultaneous equations with algebra
- Solving problems using simultaneous equations

TRIGONOMETRY

- Angular dimensions
- Pythagoras' theorem
- Trigonometric ratios (sine, cosine and tangent)
- Solving right-angled triangles
- Sine rule and cosine rule
- Solving any triangle
- Polar coordinates
- Practical applications of trigonometry

VECTORS

- Introduction
- Adding and subtracting vectors
- Multiplication of a vector by a scalar
- The scalar product
- Vector equation of a line
- Mutual position of lines
- Angle between two lines

History

ANCIENT WORLD**Greece:**

- Seafaring traders – Minoans, Phoenicians
- Mycenaean Civilization
- City states Athens and Sparta
- The Persian Wars
- Democracy and Greece's Golden Age
- The Pelponnesian War
- Alexander the Great
- The Spread of Hellenistic Culture

Rome:

- Origins of Rome
- Early Roman Republic
- Rome spreads its power – Punic wars
- The Roman Empire
- Pax Romana
- The Fall of the Roman Empire
- Rome and the Roots of Western Civilization

Middle Ages:

- Migration Period
- Charlemagne Unites Germanic Kingdoms
- Feudalism in Europe
- The Age of Chivalry
- The Power of the Church
- Church Reform
- The Crusades
- Changes in Medieval Society
- Towns in the Middle Ages
- The Bubonic Plague
- The Hundred Years War

Biology

- **Cell biology:**
 - Prokaryotic and eukaryotic cells
 - Organelles in plant and animal cells
 - Comparison of plant and animal cells
 - The cell membrane
 - Membrane transport: active and passive transport

- Mitosis and cell division
- **Human physiology:**
 - Macromolecules: proteins, carbohydrates, lipids
 - Micromolecules: vitamins, minerals
 - Healthy diet and food pyramid
 - Human digestive system and digestion
 - Blood circulatory system and heart
 - Respiratory system
- **Classification and biodiversity:**
 - Kingdoms of living organisms
 - Classifying living organisms
 - Characteristics of organisms
 - Viruses and fungi
 - Microorganisms
- **Plant biology:**
 - Flowering plants
 - Plant reproduction
 - Photosynthesis and cell respiration
 - Transport in xylem and phloem

Geography

A limited social, economic and ecologic world

Population and Society

- density and distribution
- growth and structure
- the demographic transition model
- migration (migrants, immigrants, emigrants, refugees)
- causes and effects of migration
- types of migration

Resources and Regional Conflicts

- Environmental resources conflict
- distribution and use of natural resources (regional examples)
- non-renewable resources – renewable resources
- conflicts based on exploitation
- regional conflicts, political interests
- natural phenomena/natural disasters and their effects and consequences on different regions

Economic needs

- markets: supply, demand, prices
- distribution of goods
- economic differences in distribution and availability of production factors (soil, labour, capital, and human resources)
- political and regional consequences

Equality and Diversity in Europe**Structure of Europe**

- different concepts of structuring (cultural, political, economical, natural)
- European integration processes (effects and consequences)

Change in production places and areas (socioeconomic difficulties)

- agriculture (dependence on nature/environment)
- nature vs. development of tourism

Convergences and divergences of European societies

- Development of European society
- Realising own future plans
- Immigration

I.T.

- Basics of text processing
- Basics of spreadsheet processing
- Presentation and presentation techniques
- Basics of programming (using SCRATCH)
- Basics of hardware
- Internet security, copyright

Visual Arts**Design:**

- Graphic design (basics, examples, practical works)
- Logo design (basics, examples, creating an own logo)
- Type art (basics, examples, working with different kinds of types, using type art for creating a picture, creating a new font, letters become sculptures)

Drawing:

- Basics and possibilities regarding the use of pencils and graphical pens

- Creating of shadows and grayscales using pencils and graphical pens
- 3D figures and shapes,
- Study of nature

Architecture:

- Basics, examples and possibilities of building houses and the main periods of art history
- Examples of architecture in the 20th century regarding the subject field of „social housing“ and „public buildings“,
- Practical works of planning

Art-history:

- Study of nature (examples and different kinds of possibilities in the history),
- Life and work of an artist in the baroque-age on the example of Jan Vermeer,
- The „three main colors“ (red, blue, yellow) and their meaning in the art-history (examples),
- Optical illusions,
- Film history (the film in the age of expressionism)

Music

- History and development of musical instruments
- Merging of music history with other subject areas as art history (architecture, visual arts), religion, mythology and economics – interdisciplinary teaching
- Music in prehistorical times
- Middle Age music
- Renaissance Age
- Baroque Era

Physical Education

Basic movement skills

- Mobility
- Core stability
- Flexibility
- Leg axis stability
- Sensomotoric training
- Running techniques
- Jumping techniques
- Coordinative skills (e.g. hand-eye coordination)
- Aerobic endurance
- Strength
- Quickness
- Hockey-specific off-ice activities
- Trend sports

Sports specific skills

- Athletics
- Gymnastics
- Ball games
- Swimming

Methodological competence

- General and sports specific warm-up and cool-down
- Refereeing, tactics, playing by the rules
- Health: anatomical basics: activation, muscles
- Regeneration measures
 - Foam rolling
 - Stretching
 - Muscle relaxation techniques
- Safety measures

Social competences

- Needs, interests and aims: personal vs. group
- Self-observation and observation of others

Self-competence

- Self-assessment
- Analysis of strengths and weaknesses concerning personal behavior patterns
- Articulation of needs, interests and aims of movement
- Feedback methods

Religion (Roman Catholic)**Wonders in the Bible and today****Human Rights**

- Biblical origin of human rights

The Sacraments

- Signs and symbols
- The seven sacraments
- Confirmation

The hierarchical structure of the church**Searching for meaning in life****World Religions**

- Christianity
- Islam
- Jewish religion

Lent

- What is conscience?
- Various explanations of the term conscience
- Conscience, sin and repentance
- The passion of Jesus Christ

Religion

- Understanding the phenomenon – Religion

Changes and development in the church

- 2000 years
- Architectural structures in the church