



**AKADEMEIA
HIGH SCHOOL**

**CLUBS AND CO - CURRICULAR ACTIVITIES
AKADEMEIA HIGH SCHOOL
2021/2022**

Table of Contents

Table of Contents -----	1 -
<i>ACADEMIC AND PROJECT - BASED CLUBS</i> -----	2 -
MONDAY -----	2 -
TUESDAY -----	7 -
WEDNESDAY -----	12 -
THURSDAY -----	14 -
FRIDAY -----	19 -
SATURDAY -----	21 -
<i>ENTRANCE EXAMS PREP COURSES</i> -----	23 -
<i>SPORT</i> -----	24 -
<i>STUDENTS LED INITIATIVES</i> -----	26 -



ACADEMIC AND PROJECT - BASED CLUBS

MONDAY

Title: Advanced Economics 2.0.

Teacher: Katarzyna Borzym-Grzesik

Duration: Term I

Groups: Y12

Time: Monday, 17:30 – 18:30

Description: 'Economics is truly the most fascinating subject one can study'. If you agree with this statement, then this elective is for you.

A-level curriculum introduces you to the fascinating world of supply, demand, diagrams and formulas. However, there is much more to Economics! This course explores the views of the most important economists and ideas that shaped the world that we live in. During each meeting we will discuss a specific book/economist/model, that is considered to be influential or important (e.g. von Mises, Marx, Keynes/Skidelsky, Becker, Polanyi etc.). The curriculum will be of significant help if you are considering Economics-related university courses. Students, who attended this elective last year, should not be worried - we will be discussing different topics this time!

NOTE: This course will require WEEKLY READING (at times quite extensive).

Title: Artificial Intelligence and Machine Learning

Teacher: Tomasz Cebo

Duration: Term II

Groups: Y10, Y11

Time: Monday, 16:25 – 17:25

Description: In this club, students will have a chance to learn the basics of machine learning. We will concentrate mainly on practical, hands-on experience in image recognition utilizing neural networks. However, the required theoretical background will also be provided and then required. Thus, this club will appeal to those who are keen on mathematics and programming. The club will be divided into two parts: 1. Data acquisition and processing; 2. Setting up a simple neural network. In the former one, we will learn how to use Python programming language in Google's Colab environment. Subsequently, we will choose a suitable database and prepare it for processing by the neural network. In the latter part, we will set up the actual neural network and train it on our database. Eventually, we will use it for image recognition on unknown data sets. In



this part, some of the classes might be run by an external expert: Warsaw University Lecturer and a former Oxford academic (depending on his availability - we might need to reschedule one or two classes to suit everyone). Even though not essential, previous programming experience will be useful.

Title: Akademeia Community Action Program (ACAP)

Teachers: Mara Steven, Landon Basham

Duration: whole year

Groups: all years

Time: Monday, 16:25 – 17:25

Note: very important for US applicants

Description: Take your community engagement to the next level by coordinating local community events, engaging in scholarly development around the unique challenges presented to people in our modern world, and equip yourself with the leadership skills necessary to have a measurable, meaningful impact upon our global community.

Title: Chess

Teacher: Monika Klimczak – Gromska

Duration: whole year

Groups: all years

Time: Monday, 16:25 – 17:25

Description: Play chess, one of the oldest and the most popular game ever invented: the game of strategy and problem solving. It is an exciting game with benefits that go far beyond the board itself. Chess is the classic game that develops spatial thinking and strategies and builds focused concentration. Now it is your chance to bring your game to the next level. Whether you are beginner or a more advanced player you can learn the strategies that will make you a better chess player. Best part of all CHESS IS FUN! No previous knowledge of chess required. Sign up for this elective if you are interested.



Title: Coding in C++

Teacher: Maksymilian Głowacki

Duration: whole year

Groups: all years

Time: Monday, 16:25 – 17:25

Notes: course dedicated to beginners

Description: On this course we will learn basics of programming and information technology. We will study C++ programming language - a very powerful language, which allows you to have a lot of control as to how you use computer resources. You will create your own programmes, starting with simple “Hello world!” (If you do not know what is that, this course is for you).

Title: Competition & Higher Maths Elective

Teacher: Adam Baranowski

Mode: online

Duration: whole year

Groups: Y11, Y12

Time: Monday, 17:30 – 18:30

Description: This elective's focus is twofold. During the first term, we are going to prepare for mathematics competitions. Topics include: geometry, combinatorics, inequalities, number theory. From the II term onwards, we are going to discuss selected topics in higher maths. The goal is to understand different models of the Riemann Sphere (from points of view of topology, complex analysis, algebraic geometry) and its group of automorphisms (transformations from the sphere to itself). Eventually, we are going to connect it with inversive plane geometry (that often has prominent applications in Mathematical Olympiad geometry) and see how this abstract point of view unifies many, otherwise esoteric, results in plane geometry.

Title: Introduction to Psychology

Teacher: Katarzyna Borzym-Grzesik

Duration: Term I

Groups: Y9, Y10

Time: Monday, 16:25 – 17:25

Description: Psychology is a science that tries to understand and describe the mental characteristics and attitudes of individuals and groups. Due to the fact, that it deals with the most



basic principles of human behavior, its application can be found in variety of contexts: from Economics to Natural Sciences.

During this course students will learn to distinguish different approaches in Psychology (humanistic, psychodynamic, cognitive, behavioral). On top of that, they will be presented with insights from specific research fields, such as social psychology.

The purpose of the course is to familiarize the students with Psychology as an optional A-level choice and generally develop their interest in the subject.

Title: Law Club

Teacher: Aleksandra Wołek

Duration: Term II, Term III

Groups: Y11, Y12

Time: Monday, 16:25 – 17:25

Note: this course will require weekly reading

Description: “Justice? You get justice in the next world, in this world you have the law.” During this course, we will explore different areas of English law, including criminal law, tort, equity, employment law, public and constitutional law. We will look into international law regimes too, with a focus on human rights and environmental law. We will critique and problematise the law and legal concepts, using different critical legal theories, including the feminist legal theory. This course is designed for both prospective law students as well as any students interested in how law affects everything we do!

Title: Language Learning Club

Teacher: Dr Andrew Gray **Duration:** Term II, Term II **Groups:** all years

Time: Monday, 16:25 – 17:25

Description: Do you think languages are interesting? Do you find learning them fun and hope to study more? Or do you struggle in your language lessons and want to acquire some strategies to improve? Whatever the case, join the Language Learning Club!

Together we'll do two things. First, we'll study some concepts from linguistics that can accelerate your progress. Second, we'll start to learn a new language together. (The choice of the language will be decided by the group.) We'll read articles about, and watch interviews with, legendary polyglots; we'll discuss the cognitive science of language learning.



Title: Medicine

Teacher: Halszka Kołaczowska

Duration: Term I

Mode: Every 2nd week classes will be run online

Groups: Y11, Y12

Time: Monday, 16:00 – 17:00

Description: From anatomy of human body, through its physiology to signs, symptoms and treatment options of different diseases- all of these topics covers 1-year “Elective Medicine” program. Halszka Kołaczowska, experienced doctor, teacher, after 5 years of residency in clinical oncology, will guide you through the world of medicine, explaining complex processes from the basics, making tough issues easy. Role play, quizzes, manual training- these are additional methods used by our teacher to consolidate knowledge and whet appetite for more!

Title: Mysterious world of particle physics

Teacher: Adam Markiewicz

Duration: all year

Groups: Y12, Y13

Time: Monday, 16:25 – 17:25

Description: The Standard Model of particle physics is a culmination of over a century of efforts to understand the fundamental structure of our Universe. With the long-awaited discovery of the Higgs boson in 2012 the theory seems to be complete in just the way we expected. Yet, physicists remain deeply unsatisfied. Why? Join this elective to find out. Embark on a fascinating journey through the basics of the modern particle physics. Find about all the building blocks of our Universe and how their interactions give raise to the reality as we know it.

Title: Portraiture

Teachers: Magdalena Strzelczak

Duration: whole year

Group: Y10, Y11, Y12, Y13

Time: Monday, 16:25 – 17:25

Description: Faces have a special power over us we see them in clouds and random rock formation. Our brains even process these for emotional expression. It is not an overstatement to say that seeing faces and making sense of them is a basic human compulsion. For centuries artists were mastering the means of recording and representing faces capturing their individual aspects, idealizing them, caricaturing. This class is designed for all students interested in improving their



ability to capture and record people's likeness and learn a trick or two from the old masters.
Warning: willingness to stare at people is obligatory.

Title: Reading Kafka

Teachers: Stefan Głowacki

Duration: whole year

Group: Y11, Y12, Y13

Time: Monday, 16:25 – 17:25

Description: Elective will be devoted to the works of Franz Kafka - probably one of the greatest and most unique writers of the 20th century. During the classes we will closely read selected writer's works and analyze his writing techniques.

TUESDAY

Title: Astrophysics

Teacher: Maksymilian Głowacki

Duration: whole year

Groups: Y11, Y12, Y13

Time: Tuesday, 16:25 – 17:25

Notes: not recommended for students previously attending this course.

Description: During this course we will discuss amazing topics from astronomy and astrophysics. We will talk about special theory of relativity, introducing its basic concepts and solving the mystery of “twin paradox”. We will study structure of various types of stars and what is really going on inside them. We will also learn concepts of observational astronomy which will be culminated with observations with school telescope.

Title: Biology Olympiad Elective

Teachers: Dr Mark Baynes, Dr Jakub Mikoszewski

Duration: Term I, Term II

Groups: Y11, Y12, Y13

Time: Tuesday, 16:25 – 17:25

Description: British Biology Olympiad elective is aiming at preparing Biology oriented students to participate in the BBO competition. During the elective we analyse some professional scientific journal articles to allow students contact with the science outside of A-level specification. Results



are recognised by foreign universities, including the UK ones and the process is also quite helpful for students who will be taking various pre-university exams in the future (e.g. BMAT, UKCAT, NSAA etc.). Some past papers are also available from previous editions of BBO and the elective runs until late Winter when two-paper external BBO competition exam takes place. The results are only known to student and school and do not have to be used during application process - universities are not handed those unless we consider those to be strong enough.

Title: Collaborative Art Project

Teacher: Dr Adam Anders

Duration: whole year

Group: all years

Time: Tuesday, 16:25 – 17:25

Notes: We are looking for writers, photographer, actors, production designers (visual artists and 3D designers to create sets and costumes), musicians.

Description: Create a film or stage play! As is necessary for such projects, collaborators of various disciplines work together on a big final film or show. This interdisciplinary elective will allow artists the opportunity to work on an art project of the group's choosing, such as a film or a stage play. Collaborators will contribute in small groups/individually in their regular classes and meet during the elective to bring their work together.

Title: Introduction to Economics

Teacher: Homer Shahnami

Duration: Term II

Groups: Y11

Time: Tuesday, 16:25 – 17:25

Description: The Introduction to Economics club aims to provide students with an understanding of key economic concepts and principles. This includes studying the behaviour of agents, such as consumers in the economy, and understanding public policy decisions, such as fiscal and monetary policies, by both governments and central banks to influence the macroeconomy. Moreover, this module seeks to prepare students with the analytical and essay-writing skills, when encountering data-responses, that are necessary for studying A-Level economics. The programme requires students to be up to date with current affairs and news and to be reading newspaper journals and articles regularly.



Title: Medieval Marvels

Teacher: Bella Szala

Duration: whole year

Groups: all students

Time: Tuesday, 16:25 – 17:25

Description: Do you lie awake at night wondering what happened between the 11th and 15th centuries, and why? Are you intrigued by stories of King Arthur? Ever wonder what the difference is between greaves and cuisses? Do you want to find out what the Bayeaux Tapestry is, and why it even matters? Or how the great cathedrals of Europe were built? All this and more will be covered in this session's new and exciting elective, Medieval Marvels. In our weekly seminar-style format, you will learn more about the fascinating features of this period of history, both cultural, literary, historical and art historical, working collaboratively towards a final project in which we will aim to show the school community that the Middle Ages really matter! All year groups and levels of interest are welcome.

Title: Musical Theatre

Teachers: Dr Adam Anders, Mara Steven

Duration: whole year

Groups: all students

Time: Tuesday, 17:30 – 19:00

Description: This elective aims to engage students with a penchant for acting in the preparation of a musical theatre play, for presentation to the public at the end of the school year. To participate in this elective, students must audition for the play. Not all hopeful actors can be guaranteed a role - casting requirements and the strength of the student audition will determine eligibility and ultimate participation. That said, all those interested in acting, singing, and dancing are invited to audition.

The chosen play will be announced before the auditions and scripts will be distributed to allow hopefuls to prepare. (Those wishing to participate in offstage roles - e.g., lighting, set production, etc - will be sought at a later point in the year).



Title: Poetry Club

Teacher: Sonia Blank

Duration: whole year

Group: all years

Time: Tuesday, 17:30 – 18:30

Description: Engagement with poetry both as readers and writers. Art is a way of giving form to our experiences and feelings. Poetry is one of those forms and we would like to invite you to join our Club in order to interact with, enjoy, and explore it in a very relaxed and supportive setting. We believe this will be an important step for those who already love poetry and those who are perhaps a bit intimidated by it, towards building up your academic analysis skills useful in GCSE exams, but more so, to broaden your understanding of the human experience through the lens of various poets.

Term I will focus on reading poetry while Terms II and III will focus on writing.

Title: Public and Cultural Diplomacy in Action

Teacher: Anna Tryc – Bromley

Duration: Term II

Groups: Y11, Y12, Y13

Time: Tuesday, 16:25 - 17:25

Description: Hands on, project-based elective, during which you will learn the difference between public and cultural diplomacy and how to put policies in action. You will work on particular case studies and construct a project that will be ready to implement. It will be a chance to meet some diplomats working for different countries, specialising in this field. Your projects will be evaluated by experts.

Title: School Newspaper and Magazine

Teacher: Sonia Blank, Liam Higgins

Duration: whole year

Groups: all years

Time: Tuesday, 16:25 – 17:25

The school newspaper is written by students, for students and is an opportunity for them to inform, educate and entertain their peers, as well as providing key information about upcoming events, opportunities and deadlines. The school magazine is an opportunity for students to share some of the work they have done throughout the school year.



Showcasing creative writing, artwork, photography, personal opinion pieces and reviews. This is a fantastic opportunity for students to expand their extra-curricular C.V. If you consider yourself a creative, riven individual who sees themselves at the heart of the school community this is the project for you. Writers, photographers, artists, designers and editors are all welcome to join. This an excellent testing ground for future journalists and leaders!

Title: The Knowledge Hive

Teacher: Mara Steven, Dr Marysia Jonsson

Duration: whole year

Groups: Y10, Y11, Y12

Time: Tuesday, 16:25 – 17:25

Description: This once-a-week elective will prepare the knowledge and competition skills required for the following bowl: <https://www.ihbbeurope.com/history-bowl/>

Title: XX Century Continental Philosophy

Teacher: Dr Krzysztof Wolański

Duration: Term II

Groups: Y11, Y12, Y13

Time: Tuesday, 16:25 – 17:25

Description: Introduction to modern philosophy centred around psychoanalysis and French post-structural thought. During class we will examine modern thought influence on literature, culture and society.



WEDNESDAY

Title: 3D designing and printing

Teachers: Abdullatif Albaroudi, Piotr Bejenka, Przemysław Jeske

Duration: whole year

Group: Y10, Y11

Time: Wednesday, 15:45 – 17:15

Description: Many have heard the terms “3D designing” and “3D printing” before, but only few have heard that these terms are part of a much bigger concept called “Additive manufacturing”. Nowadays the more you dive into learning about 3D designing and printing, the more you unleash the potentials of what you can do with them. During this elective you will get a chance to learn all the basics of 3D designing, modeling and creating parametric designs, using multiple designing softwares. Once you will reach the level of creating your projects on your own, you will learn how to export your designs to prepare them to be printed. To reach the best printing qualities, you need to understand how the 3D printers work and how to control all the different parameters in it. We will be teaching that to you along with the safety measures important for your health. After you master the basics, we will use the remaining time to teach you the skills of post processing like (Sanding, painting, filling gaps), and how to search for and find the perfect 3D printer for you to get. This elective doesn’t require any prior knowledge about the topic, but if you have some knowledge that you want to develop, then this elective would be perfect for you. Needed tools and equipments: Almost all the software that we will use are free programs, which make it easy to keep using them whenever or wherever you are. You will need a laptop and preferably a regular mouse instead of the mouse pad in your laptop.

Title: Competitive Debating

Teacher: Radek Czekan

Duration: Term I

Group: Y11, Y12, Y13

Time: Wednesday, 15:45 – 17:15

Description: The Competitive Debating program is designed to prepare students for their first successes in national and international competitions in World Schools and British Parliamentary styles, which are the most popular, recognized and challenging debate formats in the world. Participants will be able to learn advanced argumentation, strategic thinking and practice perfect



delivery of speeches on various contemporary controversial topics around law, economy, IR, technology, social movements, ethics, etc. Debaters will have an opportunity to represent the school at selected competitions in Poland and abroad.

Radosław Czekan is a semifinalist of the World Universities Debating Championships (EFL) and Polish National Debate Team Coach. Every student that worked closely with Radoslaw achieved at least one national final or international play-off round in their first year of training. Moreover, he is a founder and CEO of the Think and Speak Academy - a global debate school with students in UK, China and India.

Title: School Band (singers and instrumentalists)

Teacher: Kacper Zasada

Duration: whole year

Groups: all years

Time: Wednesday, 15:45 – 17:45

Description: School Band is a class dedicated for students passionate about singing, playing instruments, and performing. This class will give you an opportunity to play in various musical genres, gain a better understanding of music harmony and most importantly share the experience of playing and singing with your school mates. The repertoire will be chosen by the group and arranged to the skill level of each individual student.



THURSDAY

Title: Aviation Society*

Teacher: Tomasz Cebo

Duration: whole year

Group: Y11, Y12, Y13

Time: Thursday, 16:25 – 17:25

Description: Akademeia Aviation Society is a new club concerned with all things flying related. Weekly meetings will cover topics from historic wooden gliders through roaring WW II warplanes to modern efficient and eco-friendly aircraft. Pictures and movies from gliding and aeroplane trips will be presented, followed by some more formal training that will be a solid foundation for those members who would want to pursue further training for pilot licences.

There will be a significant connection with physics and chemistry. Presented in a popular scientific way, suitable for the general audience and not only Natural Sciences students.

Moreover, the members will have an opportunity to attend weekend outings (paid additionally). There will be a chance to fly in a light aircraft with a qualified pilot, learn the basics of controlling it and see the city centre of Warsaw and Zalew Zegrzyński from the air.

Title: Creating computers games in Unity

Teacher: Giganci Programowania

Duration: Term II

Groups: Y11, Y12

Time: Thursday, 16:25 – 17:55

Description: Computer games classes are conducted in C#. The participant learns the ways and methodology of creating computer games, both 2D and 3D. During the classes computer games are created - platform and RPG. UNITY 3D is used as a game development engine. In the second part of the course the lessons will be devoted to modeling 3D elements in Blender. After this course the student is able to create an advanced computer game on his own.



Title: Choir

Teachers: Mara Steven

Duration: Term II, Term III

Groups: all years

Time: Thursday, 16:25-17:25

Description: Join the first ever Akademeia Choir starting in Term Two! We will explore musical genre and performance techniques together to create show-stopping performance pieces for events such as the End of Year Ceremony. Have you always longed to be part of the action while watching Glee? Would you make the cut for a capella in Pitch Perfect? If you've ever found yourself longing to be a part of an amazing group like in those shows/movies, the wait is over - join the choir to live out your singing star dreams!

Title: Creative Writing

Teacher: Dr Adam Anders,

Duration: whole year

Group: all years

Time: Thursday, 16:25 – 17:25

Description: If you've ever written a few words of fiction because you felt an inner desire to write, you're a writer. And if you feel you're a writer, you probably are. This elective is designed to give you a focused way of exploring that, by creating and finishing a short story in one semester. We will work towards the satisfaction of having a completed story by beginning with ideas, form, and the simple act of writing. By the end of the semester, you will have had a short story workshopped by your classmates and the teacher, with time to complete the all-important process of re-writing. Guidance on where to submit your stories for publication will come as your second reward in the final class - the first being a completed and polished short story.

Title: Debating

Teacher: Bella Szala

Duration: whole year

Groups: Y9, Y10

Time: Thursday, 16:25 – 17:25

Description: Whether public speaking is something that makes you come alive, or whether it terrifies you, learning how to debate effectively is an indispensable life skill. In the debating



elective you will learn how to listen well to others, construct and deconstruct arguments, and express yourself eloquently through speech. Using the rules of the Oxbridge debating societies, you will engage your colleagues on a variety of hot topics on a weekly basis, culminating in a public debate open to the entire school community once each term. Students from all disciplines and abilities are warmly welcome.

Title: Model United Nations

Teacher: Dr Marysia Jonsson

Duration: whole year

Groups: Y11, Y12, Y13

Time: Thursday, 16:25 – 17:25

Description: This elective will let you experience what it's like to participate in the United Nations. You will sharpen your debating and oratory skills, become a more effective researcher, all while broadening your perspective on world affairs. Above all, it's an opportunity to have fun, dress up in business formal, and connect with other MUN-ers from all over the globe.

Title: Neurobiology in Action

Teacher: Milena Malcharek

Mode: online

Duration: all year

Groups: Y11, Y12

Time: Thursday, 17:30 – 18:30

Description: DENeurobiology in Action aims to introduce students to the neural basis of our interactions with the outside world. It begins with the consideration of motor systems and associated disorders – showing that the execution of skilful movements is a very complex task indeed. The course shall then focus on language as well as various aspects of learning and memory – presenting different ways in which these phenomena can be investigated. Attention, emotions, and motivated behaviours will be discussed next, together with some examples of relevant neurological and/or psychiatric diseases. Finally, the question of consciousness shall be tackled – preceded by the brief consideration of circadian rhythms and sleep.

Since Neurobiology in Action is a continuation of the Introduction to Neurobiology course offered last year, prospective students who have not taken the latter will receive the list of topics they should become familiar with.



Title: Photography

Teacher: Sophie Lawden

Duration: all year

Time: Thursday, 16:25 – 17:25 (Y9, Y10)

Thursday, 17:30 – 18:30 (Y11, Y12, Y13)

Note: priority for students of Arts Subjects, limited number of places

Description: Students will study different conventions and styles, from images created with the camera obscura to Instagram, we will develop practical skills in analogue and digital photography, such as film developing, printing, postproduction, image selection and composition as well as paper formats. They will gain knowledge in the darkroom by using alternative cameraless photography techniques to explore different processes and ways of creating images.

Over the course of three terms, we will analyse how the representation of landscape, architecture and portrait developed through the history of the photographic medium. Students will analyse, from an artistic and technical point of view, the most influential photographers and images. We will explore and look closely at works of contemporary artists that use photography as their medium, but also documentary photographers, publicity and street photography.

Title: Research, Explore and Develop (RED) Club

Teacher: dr Nataliya Marchyk

Duration: whole year

Groups: Y11, Y12, Y13

Time: Thursday, 16:25 – 17:25

Description: If you have passion for natural sciences and would like to Research, Explore and Develop your ideas, this will be the space to get help and guidance, to discuss and to try. This space you can use to prepare for scientific conferences and competitions (e.g., E(x)plory; European Union Contest for Young Scientists, *EUCYS*) or/and to work on your own scientific project(s) which could be shared later with our school community; to read scientific articles and create science-based presentations/posters.

Title: School Without Borders

Teachers: Monika Koblak, Kinga Stańczuk

Duration: whole year

Groups: all years

Time: Thursday, 16:25 – 17:25



Description: According to EU law each child has guaranteed access to education, however most children in European refugee camps (up to 80%) do not go to school. This year, Parwana Amiri, a young girl living in Ritsona Refugee Camp (Greece) managed to set up a small school. Currently around 800 children live in Ritsona and only around 30 attend local schools.

Together with our students we would like to develop an online educational programme that would be a bridge between the students of our school and young people of diverse origins living currently in the Camp. Our aim is to support Parwana and her friends involved in the school in her consistent struggle to provide easier access to education.

The first meetings will be devoted to gaining more knowledge about refugee camps in Greece and the current situation of refugees that have been living there for some time. We will also talk about what good education means and how unique the current context is and what can be done.

Simultaneously, we will be developing a structure of an online school in cooperation with the young refugees from Ritsona. The two lead teachers to the programme are visiting Ritsona in September to provide the necessary equipment to Parwana as well as to work out what would be the best form and subject of the online meetings. This will allow us to fully embrace the needs of the young refugees in Ritsona. The project will be based hugely on the active involvement of our students both teaching and learning from young people from Ritsona. Participation in the project requires students to attend weekly scheduled sessions to develop educational programs, exchange individual experiences, gather information, etc. as well as some time during the week to actually meet, teach and work with children from Ritsona (unscheduled, min. 1 hour per week).

Title: Theatre Connoisseurs*

Teacher: Kay Czepli – George

Duration: whole year

Groups: all years

Time: Thursday, 16:25 – 19:25, once a month

Notes: obligatory for Drama students, open for enthusiasts

Description: Do you feel like you've missed live performances during the two-year pandemic? Are you up for exploring Warsaw theatre repertoire and participating in heated debates with fellow theatre connoisseurs about must-see plays?

If your answer is yes, then this elective is definitely for you!

The purpose of our meetings will be to foster appreciation, knowledge, and support of the performing arts while having fun. On a monthly basis we'll meet to marvel at the wonders on stage and share our thoughts. The classes will be held both at our school premises and Warsaw theatres (depending on the Covid situation and what's actually on at the time).



FRIDAY

Title: Artificial Intelligence and Machine Learning

Teachers: Tomasz Cebo

Duration: Term II

Group: Y10, Y11

Time: Friday, 16:25 – 17:25

Description: In this club, students will have a chance to learn the basics of machine learning. We will concentrate mainly on practical, hands-on experience in image recognition utilizing neural networks. However, the required theoretical background will also be provided and then required. Thus, this club will appeal to those who are keen on mathematics and programming. The club will be divided into two parts:

1. Data acquisition and processing;
2. Setting up a simple neural network.

In the former one, we will learn how to use Python programming language in Google's Colab environment. Subsequently, we will choose a suitable database and prepare it for processing by the neural network.

In the latter part, we will set up the actual neural network and train it on our database. Eventually, we will use it for image recognition on unknown data sets. In this part, some of the classes will be run by an external expert: Warsaw University Lecturer and a former Oxford academic. Even though not essential, previous programming experience will be useful.

Title: Biochemistry

Teacher: Maksymilian Głowacki

Duration: whole year

Groups: Y11, Y12, Y13

Y11 students only with their Chemistry teacher recommendation

Time: Friday, 16:25 – 17:25

Notes: not recommended for students previously attending this course.

Description: Course will be divided into two parts. Initially we will study biologically important chemical compounds – proteins, lipids, carbohydrates, and nucleic acids. We will discuss relation between their structure and function and their most important properties. Emphasis will be placed on the mechanism of their actions and why they really do what they do. In the second part



we will study some interesting metabolic pathways of humans and other organisms, showing their connection to various life-style diseases.

Title: Film and Art elective

Teachers: Kay Czepli-George, Anna Tryc – Bromley

Duration: whole year

Groups: all years

Time: Friday, during ARTLAB, 16:25 – 19:25, once a month

Notes: the club lasts 120 minutes, is obligatory for students attending ARTLAB and open for all other interested in the subject.

Description: Film and Art is a unique elective for film buffs and interdisciplinary minds. The programme is dedicated to the screening and discussion of moving image works by visual artists and those who work on the fringes of moving image practice and theatre. Therefore, during our classes, not only will we watch must-see classics and eye-opening art films by iconic directors but also we'll have an opportunity to study unforgettable theatre productions that may be hard to see at the cinema or are unavailable elsewhere. This elective is part of the Art Lab and it is recommended for those who are into fine arts, history of art, photography and theatre. It is open to both 5th and 6th Formers (however, please note places are limited). Because of its nature, the sessions will be 3 hour long and will happen only once a month.



SATURDAY

Title: CanSat

Teachers: Dr Jakub Bochiński

Duration: Term I, Term II (detailed schedule will be presented during the initial meeting)

Group: Y11, Y12

Time: Saturday, 12:15 – 16:00

Description: CanSat competition is organised every year by the European Space Agency (ESA). Teams of 4-6 high school students attempt to design and construct their own scientific satellite the size of a soda can. The best few are launched on a supersonic ground to air rocket, which takes them approximately 3 km above the ground. Satellites deploy and land on parachutes, gliders, rotary wings or through other means - all while carrying out a scientific mission and communicating with their ground station.

During the elective we will learn how to design a simulated space mission, construct prototypes of all subsystems and manufacture the final satellite. Curriculum is based on the best practices established in the space industry and taught by one of the top space project managers in Poland, Dr Jakub Bochiński. It will additionally include several workshops carried out by ESA-ESERO experts.

This elective requires some prior knowledge in either of these areas: science, engineering, technology or maths. Management, outreach and educational skills are also vital. No prior space related experience is required. Last year, one of the teams reached the 3rd place in the competition on their first try, despite having no experience in satellite construction.

Cansat competition takes place from September to April and requires at least 4 hours of involvement each week. Supervised team meetings take place on Saturdays. You don't need to have a team to take part - we will form teams during the introductory meeting. Please note that it is a competition and our teams can be excluded at several junctions, as the field of competitors is progressively narrowed by the organisers.

As a side note - teams that do best in CanSat competition all have something "a little different" about them. If you are hesitating whether this is something for you - come to the introductory meeting and learn more. It might just turn out that your contribution is exactly what we are looking for



Title: Introduction to Science & Engineering

Teachers: Dr Jakub Bochiński

Duration: Term I, Term II (detailed schedule will be presented during the initial meeting)

Group: Y9, Y10

Time: Saturday, 10:00 – 12:00

Description: Did you know that scientists often design and build their own scientific instruments? Engineers, on the other hand, often need to apply scientific method to validate their designs. The crossroads where the scientific and engineering techniques meet is the most exiting area of the currently ongoing tech revolution.

This elective will put you on a path to become a self-sufficient researcher and/or engineer. We will introduce basic concepts of scientific measurement and follow it up with means of designing and building your own measuring devices. From a 3D printed telescope to an autonomous, airborne laboratory - we will try our hands at a variety of engineering challenges carried out as a series of mini-projects. Throughout this elective you will learn 3D modelling, 3D printing, electronics, microcontrollers, programming, prototyping, validating, scientific study design and much more. Elective is taught by Dr Jakub Bochiński, a professional scientist, science communicator and space project manager.

No advanced prior knowledge is required to take part in this elective. Keen interest in discovering the world around us with a healthy dose of creativity is all that you will need. Note that this is an introductory course in the field of science and engineering - designed to be interesting for just about any student in Akademeia. For more advanced engineering challenges see e.g. the CanSat competition.



ENTRANCE EXAMS PREP COURSES

The following clubs are obligatory for Y12, Y13 students who will take one of the following exams as the part of their application process:

Title: BMAT and UCAT Exam Preparation

Title: ENGAA Exam Preparation

Title: HAT and HAA Exam Preparation

Title: LNAT Exam Preparation

Title: MAT Exam Preparation

Title: NSAA Exam Preparation

Title: PAT Exam Preparation

Title: TSA Exam Preparation

Title: SAT Y13 group 1

Title: SAT Y13 group 2

Title: SAT Y12 group 1

Title: SAT Y12 group 2

Title: SAT Y11



SPORT

Title: Volleyball

Teacher: Edyta Czerwonka

Duration: whole year

Time: Monday, 16:25 – 17:30

Title: Basketball Girls

Teacher: Edyta Czerwonka

Duration: whole year

Groups: all students

Time: Tuesday, 16:25 – 17:30

Title: Fitness

Teacher: Edyta Czerwonka

Duration: whole year

Groups: all students

Time: Tuesday, 17:30 - 18:20

Title: Splits for Absolute Beginners

Teacher: Magdalena Strzelczak

Duration: Term

Time: Tuesday, 7:30 – 8:15

Title: Football

Teacher: Maciej Domoradzki

Duration: whole year

Groups: all students

Time: Wednesday, 18:00 – 19:15

Title: Basketball Boys

Teacher: Maciej Domoradzki

Duration: whole year

Groups: Y9, Y10

Time: Thursday, 16:25 – 17:30



Title: Basketball Boys

Teacher: Maciej Domoradzki

Duration: whole year

Groups: Y11, Y12, Y13

Time: Thursday 17:30 – 18:30

Title: Badminton & Table Tennis

Teacher: Edyta Czerwonka

Duration: whole year

Groups: all students

Time: Friday, 16:25 - 17:30

Title: Tennis

Teacher: Maciej Domoradzki

Duration: whole year

Groups: Y9, Y10

Time: Saturday, 10:00 – 11:15



STUDENTS LED INITIATIVES

Title: Amnesty International Club

Leaders: Julia Nowacka

Groups: Y9 - Y13

Description: Amnesty International Human Rights Group is a perfect club for anyone interested in helping people around the world, whose rights have been violated; a lot of them are f.e. still imprisoned for peacefully protesting or speaking out. The club doesn't need to focus only on Amnesty initiatives, we can help other organisations/charities as well. We will be:

- Organising various happenings (such as letter writing marathon) and fundraisers
- Presenting short case descriptions at the assemblies and encouraging the school community to sign a particular petition
- Participating in any other activity that could create a positive impact

If you don't have a lot of time, that won't be an issue. All help is appreciated, and how much time you can devote is your decision.

Time and place of meetings: A longer meeting (potentially online) once a month + shorter meetings when preparing an action. We will agree on the time and places of the meetings on the group chat.

Title: Association for Female Empowerment (AFE)

Leaders: Natalia Buchajska,

Groups: Open to all

Meeting: Tuesday 18:00, online or canteen

Description: With AFE, we meet weekly to discuss current events in feminism and debate prompts such as the roots of modern beauty standards, the existence of rape culture, the effects of gender-neutral upbringing, and more. We are currently working on the "Beyond the Glass Ceiling" - a conference that hopes to celebrate the successes and share the advice of women in male-dominated fields - and the "Equity Education" - an organisation that works to provide equitable educational resources, tutoring, and extracurricular activities to under-resourced students in Poland.



Title: Mathemagic

Leaders: Alex Ziheng

Groups: Y9 - Y13

Meetings – Depends on members availability. If you are interested in joining the club please contact Alex directly - huang.ziheng@students.akademeia.edu.pl

Description: Do you want to perform magic? Or create it? Mathematics can be applied to achieve miracles. In this club, you will see mathemagical effects and understand how they work. We will be discussing mathematical principles behind them and ponder questions such as: how well do shuffles mix cards up? How to preserve information throughout the effect? What are the limits we can extend the principles to? If you are interested in mathematics or card magic, this is the right club to sign up for.

Title: Innovation Hub - International STEM magazine

Leaders: Nicola Stanislawska & Maria Rutkowska

Groups: Y9 - Y13

Description: Become an author or graphic designer for an international STEM magazine and join the community of students from all around the world!

Innovation Hub is an online platform and magazine for high school students to share their articles on scientific topics. If you are interested in STEM and enjoy writing we encourage you to become an author for Innovation Hub! We are also working on a physical issue of the magazine. Therefore, if you are interested in designing our newest issue and are a capable graphic designer we welcome you to join our team!

Website: <https://www.innovationhub.world>

Instagram: [innovationhub.world](https://www.instagram.com/innovationhub.world)

Email: innovationhub.world@gmail.com

Title: Science Communication Club

Leaders: Liubou Samson

Groups: Open to all

Meeting: Wednesday, 16:20.

Description: Science communication is the way of spreading science in a way accessible to the



public who is not familiar with scientific terms and definitions. Our goal is to make the importance of modern research clear for the community.

In our club “Transcription” we are:

1. Creating posts about scientific events
2. Explaining the importance of science in our everyday life
3. Reading scientific articles and translating them to simpler words

We have a wide variety of tasks which would suit anyone! The following positions are available:

1. A writer – makes his research on a topic of interest and writes an article for Instagram/website
2. An editor – checks the article for mistakes/ typos and suggests better wording
3. Graphic designer – creates the graphics for the posts

Our team is about to launch the Instagram account, and we’re also working on the website. In the future, we’re hoping to create podcasts and organize science-related events, such as TedTalks.

The club is open for any year!

Interested? Have any questions, suggestions or concerns?

Please, contact liubou.samson@students.akademeia.edu.pl in such case.