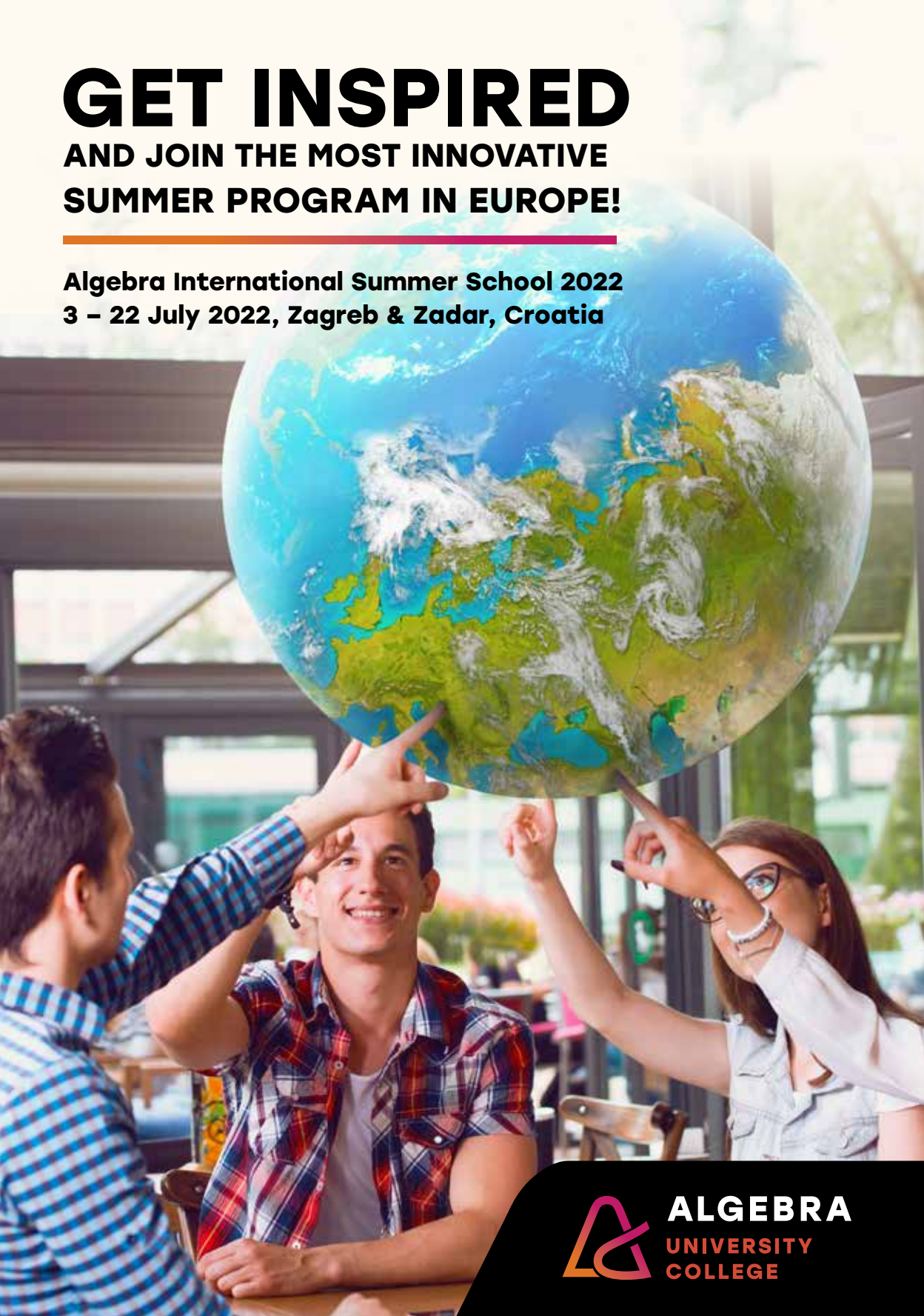
GET INSPIRED

AND JOIN THE MOST INNOVATIVE SUMMER PROGRAM IN EUROPE!

Algebra International Summer School 2022
3 – 22 July 2022, Zagreb & Zadar, Croatia



ALGEBRA
UNIVERSITY
COLLEGE

ABOUT ALGEBRA UNIVERSITY COLLEGE

Your time spent in higher education should not be just a short break between the innocence of student life and the harsh future that awaits you. Education is always an opportunity, a step forward, and it should be taken seriously. That is why we are here to help you along this road and why we work hard to improve and perfect our programs. We want you to unlock your greatest potential while at Algebra, regardless of whether you are attending a Bachelor or Master program, or just a short summer or winter course. We are glad when others recognize our efforts, but our number one concern is to justify the trust you put in us. We choose our lecturers very carefully. Our mission is to give you useful, up-to-date and applicable knowledge to make you a true expert with bright career prospects. Each course is envisioned as a small but significant step toward that goal. Our passion will rub off on you if you let it.

> **“Join us and let’s create digital future together!”**

DID YOU KNOW?

Algebra is the biggest private education provider in Croatia!
Algebra University College offers top quality professional programs according to the Croatian Agency for Science and Higher Education. In 2014, Microsoft listed Algebra among 3200 of the best educational organizations, a status that Algebra has reclaimed in 2020.



Experience Algebra University College through our International Summer School and find out why we are the number one choice for your education!



OUR STUDY PROGRAMS

Our students can choose between 14 undergraduate and graduate study programs/specializations. All our graduate level programs are held exclusively in English, even for Croatian students, so that exchange and international students can choose any course or program. As of 2021, students can also apply to study in English at select undergraduate study programs!

Undergraduate Professional Study Programs / Specializations (Bachelor)
Software Engineering
System Engineering
Multimedia Computing
Digital Marketing
Visual Communications Design
3D Modeling

Specialist Graduate Professional Study Programs / Specializations (Master)
Software Engineering
System Engineering
Data Science
Game Development
Internet of Things and Artificial Intelligence (with Epitech, France)
Digital Marketing
Design & Communications Management
e-Leadership MBA

Learn more at **www.algebra.university**

WHY JOIN THE INTERNATIONAL SUMMER SCHOOL PROGRAM?

Would you describe yourself as creative, curious and open-minded? Spending three weeks in July at the number one private higher education institution located in one of Europe's favorite summer destination and learning about the latest digital innovations sound good to you? If your answer is yes, then Algebra International Summer School is the right choice for you!
The summer sunshine is the perfect ingredient to get inspired and learn about new and interesting things. At Algebra you can find the hottest summer courses to upgrade your skillset and build your CV, while having lots of fun in the process. The growing number of students from around the globe who attend our Summer School program each year confirms the quality of our curriculum and now it is time for you to get with the program.
Fill your summer days with new adventures through studying, hanging out with the fellow students and exploring Croatia. The program is designed to offer a well-balanced mix of work & play. Our courses are creative and suitable for students from all backgrounds so don't get discouraged if you are just making your first steps in the digital world!

There is no better way to spend your summer than traveling and discovering new places, and there is no better place to do that than Croatia! Did you know that Croatia has more than 1000 islands and more than 2700 hours of sunshine a year? And you get to experience that and much more during our three weeks together! You will have a chance to spend two weeks in Zagreb and one week in the beautiful city of Zadar on the stunning coast of Croatia during its liveliest season.

Now that you know what it takes for an unforgettable summer, it is time to pack your bags and head to Croatia! You have until 31 May (or 28 February if you want to catch the Early Bird applications) to apply for Algebra International Summer School. The best summer of your life is at your doorstep, don't miss it!
At Algebra International Summer School, you will encounter like-minded individuals from all corners of the world, make friends for life and have the chance to join dozens of young people in creating a digital future! Meet us in Zagreb and Zadar from 3 – 22 July and see why we are the most exciting summer school in Europe.

#Excel at what you love doing!

Algebra International Crew

CHOOSE YOUR SUMMER COURSE

EARN 6 ECTS PER COURSE

ARTIFICIAL INTELLIGENCE
THE BENEFITS AND THE RISKS OF ARTIFICIAL INTELLIGENCE

EXPERIMENTAL DRAWING
REDEFINING PERCEPTION IN A 3D ENVIRONMENT

CYBER SECURITY
THE FORC3 IS STRONG WITH THIS ONE

DATA DRIVEN STORYTELLING
FUNDAMENTALS OF DATA ANALYSIS AND VISUALIZATION

DIGITAL MARKETING
NEW WAYS OF COMMUNICATION

MOBILE APPLICATION DEVELOPMENT
MASTER MOBILE AT THE CENTER OF DIGITAL STRATEGY



ADDITIONAL FREE COURSE
CROATIAN LANGUAGE & CULTURE

The Croatian Language and Culture course will help you learn the very basics of Croatian and offer an excellent insight into Croatian culture. You will learn to read and write some of the most important Croatian words, as well as learn key conversational phrases. You will also learn tidbits about famous Croatians and Croatian history, geography, cuisine and more!

But, don't worry, this course is not only about learning – you will have lots of fun simulating real-life conversational situations, playing games and meeting new friends.
Don't let Croatian catch you by surprise. Expect the unexpected!
Students who take part in this course will be rewarded with additional 3 ECTS points.



ARTIFICIAL INTELLIGENCE

THE BENEFITS AND THE RISKS OF ARTIFICIAL INTELLIGENCE

Artificial intelligence has been a fascinating concept for more than a decade, and we are finally getting close to making AI a reality. We are currently witnessing significant innovations in various technologies that all relate to the influence of AI. This drives demand for understanding not only how to use and implement such technologies but also how the basic concepts of selected components really work.

In order to fully understand how AI will impact the future of work, this program seeks to explore the core features of AI technologies from a business and user perspective. You will learn why the social aspect of AI is important and how complex it is to create an efficient one. Be prepared to use your innovation skills and elevate them in practice. Once you grasp the key AI complexity and enabling components, we will start a discussion on how to successfully invoke AI in our lives. The prototyping process will begin with a simple question: Can you create a simple but efficient AI solution scenario by covering “all important” aspects? Selecting the appropriate or at least the most adoptable technology model can be crucial to achieve success. You will get to play with solutions using prepared scenarios and create your own with specific target customer/industry in mind. Once you master experimenting, you will push your imagination to its limits and create your own story, share it and improve your AI skills in a group. Finally, you will be able to use this skill to learn how to navigate through business quickly and efficiently.

Then we will be ready to take a look into the future. What can happen in a year or so? How will these cases evolve and how fast will our current skills become obsolete? Teamwork and individual pitches will be presented for mentor and peer evaluation. Exciting times are ahead, let this course reveal the benefits and the risks of AI and invoke the skills you will need in the future.



EXPERIMENTAL DRAWING

REDEFINING PERCEPTION IN A 3D ENVIRONMENT

Students who join this course will master the art of creation through practical work. The various drawing techniques and methods you will learn as part of this course will help you unlock your full potential as a drawing artist, which is an indispensable tool for anyone who wishes to build a career in the design industry.

In this course, you will acquire practical drawing skills as well as learn to understand various drawing techniques and recognize the key factors that define perception. You will learn how to apply theoretical knowledge about different elements of visual culture in practice and improve your analytical thinking in drawing. In order to unlock your full potential as a drawing artist and to help you build a career in the field of design, this course will teach you how to understand, analyze and define all drawing procedures, with special emphasis on developing your personal interests through practical work.
All practical work in the course is based on an innovative mix of traditional techniques and the latest digital technology. In this course, you will be developing your projects using graphic tablets for 3D modelling as well as pen and paper. The drawing techniques that you will be mastering include the creation of forms, motifs and artefacts based on 3D modelling systems. Special emphasis will be placed on tonal drawings and color.

As part of the coursework, you will have the chance to develop motifs in drawings based on your personal preferences. You will then proceed to re-create the chosen motifs as forms made from various materials, tonal and color characterizes.
The prerequisite for enrolling in this course is to submit your art portfolio.



CYBER SECURITY

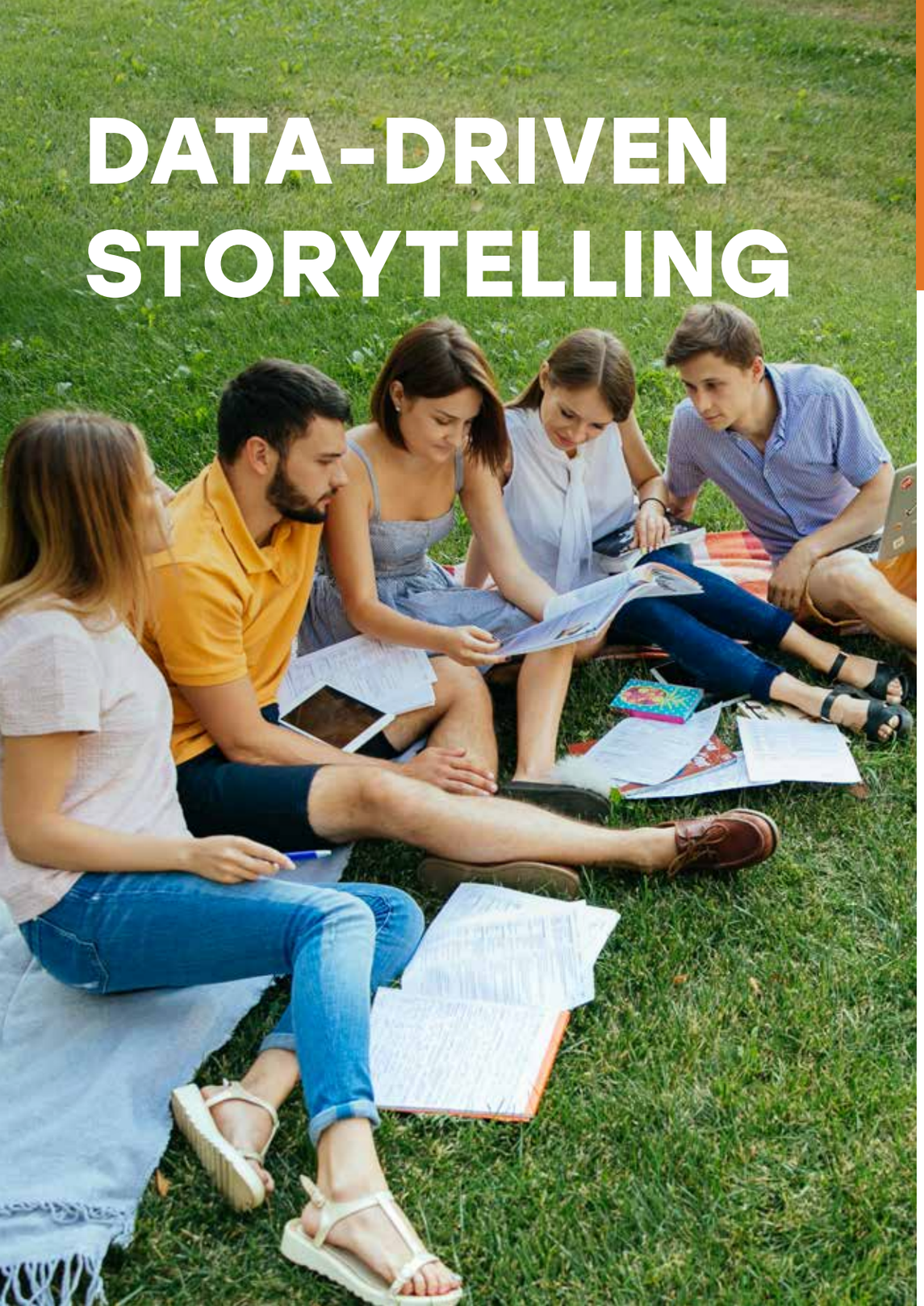
THE F0RC3 IS STRONG WITH THIS ONE

Get to know the "dark side" of security and how to use "the force" in the right way. In this course, you will learn how to use the computer without exposing it to most of the threats lurking outside, whether this is simple Internet browsing, *innocent* usage of publicly available Wi-Fi or usage of secure corporate networks.

Cyber security is an ever-evolving field with opportunities awaiting everyone with an affinity to learn more and develop their skills in this interesting and demanding field. This course will demonstrate the basic steps that most of the hackers would go through while compromising the computers. Also, it will define some interesting known and less known attack vectors and protections against them.

You will not only have a chance to compromise many vulnerable machines by using different attack vectors, but you will also acquire knowledge that will help you protect computers and networks against attacks. The course will also cover some of the latest attacks and methods used in-the-wild.

The prerequisite for this course is an understanding of the basics of operating systems, network and web applications. Nevertheless, the important concepts will be delivered during the class as a refresher. Everyone brave enough to step into this class will be rewarded with the knowledge that is heavily sought after not only in the military/government sector, as also in any security-aware corporation/company.



DATA-DRIVEN STORYTELLING

FUNDAMENTALS OF DATA ANALYSIS AND VISUALIZATION

Storytelling skills are considered to be among most important skills today, the skills we all should practice, and when empowered with data they can create very powerful tool in many industries including digital marketing.

Our society is based on "stories" that are the basis for the way we communicate, live and dream. In the introduction to the lecture, a short section of technology development will be elaborated with a special focus on EDU / government / business (learning by doing) and data science, as well as advanced visualization. We will describe and conduct a characteristic data science project and show some techniques related to the big data infrastructure, and the way we use mathematical rules for various activities in the phases of these projects. In the lecture, through a practical view, we plan to show how to use data and advanced visualization tools combined with large data sets to gain content and the way we can tell the story with the help of this content.

The course aims to introduce you to think out of the box and create interesting and relevant stories using data. In order to do that you will master different techniques of visualization and exploratory data analysis. You will acquire a necessary theoretical and practical knowledge and skills in the field of data science that is characterized by large volumes of data. Apart from the technique, you will be introduced to a variety of tools for visualization and exploratory data analysis.



DIGITAL MARKETING

NEW WAYS OF COMMUNICATION

The course will introduce students to digital marketing strategies and user behavior, from content marketing, search, social to analytical tools used to track the success of digital campaigns.

The digital revolution completely changed the way organizations approach their core business, from creating products and services, managing customers to marketing and sales. Digital platforms introduce new ways of communication with customers allowing companies to tailor products and services to customer's needs in a more agile manner. In a way, digital marketing changed traditional marketing, making it faster, more precise, real-time and data driven. The tools that digital marketing experts use every day allow us to execute digital campaigns targeting audiences across the world much more efficiently and with smaller budgets than in traditional marketing.

In this course, we are going to examine the basic concepts of digital strategy, starting from understanding a company business model, products, customers, markets and business goals as well as how to accomplish company marketing goals on digital platforms.

The topics covered by the Digital Marketing course include understanding the consumer, grasping cross-platform communication, goals and metrics, web optimization, user research techniques such as SEO, advertising on Google Ads and YouTube, measuring success with Google Analytics as well as using social media channels to position a brand in the digital world.

MOBILE APPLICATION DEVELOPMENT



MASTER MOBILE AT THE CENTER OF DIGITAL STRATEGY

This course presents a vital core for all hardcore programmers, with very strong prerequisites and excellent knowledge of Java and C# programming languages. Therefore, upon successful completion of the course, the students will, with no exception, witness their own quantum leap in knowledge, learning both the Kotlin programming language and Android mobile architecture.

The main purpose and aim of this course is proper and thorough introduction to mobile application development. Because of the ever-growing popularity, widespread usage, variety of target devices and its open-source nature, the platform is chosen to be Android, and the programming language is Kotlin. Android ecosystem consists of 4 pillars that students must become very accustomed to – Activity, Service, Broadcast Receiver and Content Provider.

With proper knowledge of the ecosystem, using mobile oriented libraries and following the latest development standards, along with the advanced and sophisticated usage of Kotlin, the students are capable to deliver a highly scalable project that can serve as a personal framework for developing Android applications.

RECOMMENDATION FOR STUDENTS ATTENDING THE ONSITE SUMMER SCHOOL PROGRAM



After the successful migration of our International School programs to virtual teaching in 2020, we are excited to get moving once again and welcome students back to Algebra's campus in Zagreb, Croatia. However, during the ongoing global coronavirus disease (COVID-19) pandemic, the health and safety of our students, lecturers and staff remains our primary concern. Therefore, students travelling to Croatia for the purpose of attending our Summer School program are strongly advised to follow the Covid travel rules issued by the Government of the Republic of Croatia.

PERSONS TRAVELLING FOR STUDY PURPOSES SHOULD HAVE THE FOLLOWING:

certificate that they have received two doses of vaccine used in the EU Member States (Pfizer, Moderna, AstaZeneca, Gamaleya, Sinopharm) not older than 210 days, provided that 14 days have passed since they received the second dose, or a certificate that they have received one dose of the vaccine, not older than 210 days, if the vaccine is administered in a single dose (Janssen/ Johnson&Johnson), provided that 14 days have passed since they received the single dose,

certificate showing that they have recovered from COVID-19 and have received one dose of vaccine within six months from contracting the disease, provided that the vaccine was administered less than 210 days from their arrival at the border crossing point.

QUICK FACTS APPLICATION

The Summer School application process is carried out online at the official program website: www.summer.algebra.university. Applications are reviewed on a rolling basis, once you submit your application the admissions team will contact you to schedule an online interview. Applications must be submitted before 31 May 2022.

We work in small groups and places are limited, so make sure to apply on time.

STUDENTS PROFILE

Highly enthusiastic and motivated students interested in the field of technology, applied science, social sciences and humanities, as well as art students who aspire to personal growth and an effective start to their career.

LANGUAGE OF DELIVERY

English.

The Summer School Program is intended for students with at least a pre-intermediate level of English (B2) and it is not suitable for beginners or students with an elementary level of English.



APPLY FOR SCHOLARSHIP

Check out all of the scholarship opportunities at www.summer.algebra.university
If you need any additional information, send us an e-mail at summerschool@algebra.university

DATES

3 July – 22 July 2022

TUITION FEES

	One course	Two courses
Full Tuition Fee	**1.800,00 €**	**3.060,00 €**
Early bird Tuition Fee*	**1.530,00 €**	**2.601,00 €**

*for the students enrolling before 28 February 2022

STUDENTS WILL BE AWARDED 6 ECTS PER COURSE.

- **Ask for information about special prices for groups and partner universities.**

THE TUITION FEE ALSO INCLUDES:

CULTURAL & SOCIAL PROGRAM: quirky museums, historical sightseeing, boat trip

ADDITIONAL FREE COURSE
Croatian language and culture, 3 ECTS points

Morning refreshment (tea or coffee)

CROATIAN CUISINE: lunch during weekdays

ACCOMMODATION



Recommended price is EUR 600 if students stay in multiple bed dorms.

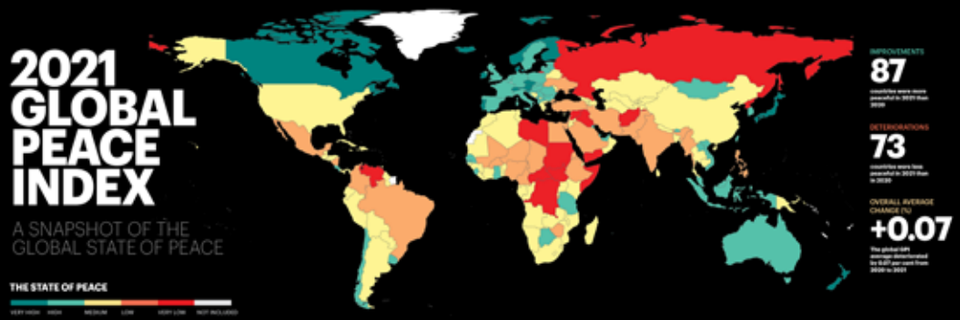
Accommodation is NOT INCLUDED in the tuition fee.
The price for accommodation during the three-week International Summer School program is approximately EUR 600 if you stay at hostels in Zagreb and Zadar in multiple bed dorms. All premises facilitate the student life to the fullest and allow students to have a unique experience. Most hostels are modern & urban designed, located in the heart of Zagreb and Zadar.
If you do not wish to stay in the hostel, you can alternatively look for private accommodation on your own. Although prices of private accommodation in Zagreb and Zadar may vary depending on the city area, the size and amenities that apartments include, we would be happy to assist you in the process of finding a flat by providing helpful links to various rental agencies that offer short-term apartment rental.

WE RECOMMEND YOU BOOK YOUR ACCOMMODATION BEFORE APRIL 30, 2022.

CROATIA

YOUR “LIVE AND LEARN” DESTINATION

Croatia is considered one of the safest countries in the world according to The Global Peace Index 2021 produced by Institute for Economics and Peace (IEP), ranking 17 among 163 countries.



Croatia is one of the sunniest spots in Europe. You should expect 13 hours of sunshine a day in July. More than 19 million people choose Croatia for their holidays every year. Even though Croatia is widely known for its beautiful coast, sunny islands and great football, it is also a land of innovators and a home to inventions which have transformed human existence. Several of these we use daily, such as: the tie, the ball-point pen (Penkala pen), the alternating electrical current, electrical transformers, power lines, the parachute and many others. Croatia is also the birthplace of Nikola Tesla, Marko Polo and many more outstanding individuals.


Zagreb


Zagreb

Croatia – a small home of the World’s Greatest Technological Innovators

Aside from the beautiful coast, great cultural and historical heritage, Croatia has been recognized for its contribution in the area of innovations and global reference projects. We are an exporter of the best business-technological practices, and home to many individuals who have been recognized for their skills and expertise all over the world.


Plitvice Lakes



City of Zagreb



Zagreb, one of the oldest European cities, is not only the administrative but also the economic, diplomatic and cultural capital of Croatia, with a population of almost one million people. Zagreb is also a university center with forty higher education schools and over 85,000 students. It is a city that is proud of its long history of excellence in education - Zagreb had its first University in the mid-16th century!

As the capital of Croatia, Zagreb is a great place to be all year round, but summertime is when the city is at its liveliest! There is an abundance of green surfaces such as the Maksimir park, or the Bundek and Jarun lakes where you can spend your free time sunbathing, having a picnic, barbecuing or doing outdoor sports. Also, Zagreb offers plenty of cultural and open-air festivals in the summer. With approximately fifty museums, and events such as open-air cinema, outdoor stand-up comedy shows, rooftop parties and much more, a summer in Zagreb is to everyone's liking!

Even though Zagreb is a Central European city, in many ways, it beats to the Mediterranean rhythm of life.

A great atmosphere and friendly local people are the greatest treasures you will discover in Zagreb.

DID YOU KNOW?

Zagreb rings out with the sound of a real cannon, daily!

Ever since 1 January 1877, Grič cannon has been fired every day at noon. Located at the top of a 13th-century tower called Lotrščak in historical Upper Town of Zagreb, the cannon's original function was to signal noontime to the bell ringers of the city's churches. The cannon came to Zagreb from a ship of the famous British admiral Nelson. Today, it's one of the most popular tourist attractions in Zagreb.

The best place to witness the cannon blast is at the foot of the tower, but don't forget to cover your ears!



City of Zadar

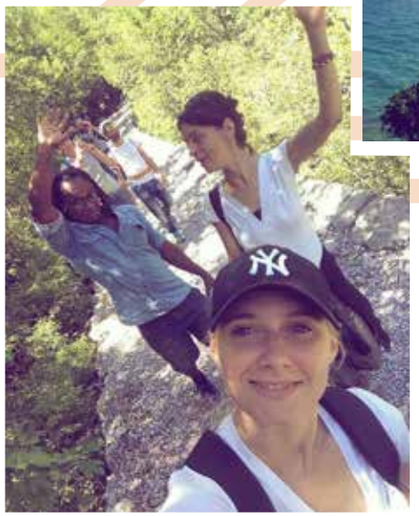
Zadar, a city with over 3,000 years of history, is the administrative, economic, cultural and political center of northern Dalmatia with 75,000 inhabitants, situated in the heart of the Adriatic region. Those who respect and admire historical monuments and cultural heritage find the city irresistible. Zadar is both an atmospheric time machine and an open-air museum, surrounded by historical ramparts, a treasury of archaeological and monumental riches from the ancient and medieval times. It is a Renaissance city with a modern flair thanks to the first sea organ in the world!

Zadar was built around a Roman forum with well-guarded city walls that have protected old monuments against many adversaries. Full of archives, museums and libraries, Zadar is the keeper of literary and musical treasures and the city with the oldest University in Croatia (1396). The Zadar region is known for its crystal-clear sea waters, a multitude of small islands and beautiful natural beaches.

Here you can choose to visit theatres, museums and exhibitions or attend different concerts every day. Enjoy the city of Zadar, a city of exceptional history and a rich cultural heritage.











Have a creative, inspirational and educative summer in Croatia with Algebra!







ALGEBRA
UNIVERSITY
COLLEGE

International Office

Ilica 242, HR-10000 Zagreb

Croatia – Europe

E-mail summerschool@algebra.university

Phone 00 385 1 5809 313

Fax 00 385 1 2222 183

More information:

www.summer.algebra.university

Every effort has been made to ensure that the information in this brochure is accurate and up-to-date. However, some changes, for example to programs, courses, facilities or fees, may become necessary due to legitimate staffing, financial, regulatory and academic reasons. In such circumstances, Algebra will: (i) endeavor to keep any changes to a minimum; (ii) take all reasonable steps to minimize disruption to students; and (iii) keep students informed appropriately by e-mail advising where to seek further information if required. If you require further information or confirmation of any matter, please contact us at summerschool@algebra.university.

Algebra International School Algebra International School Algebra University College