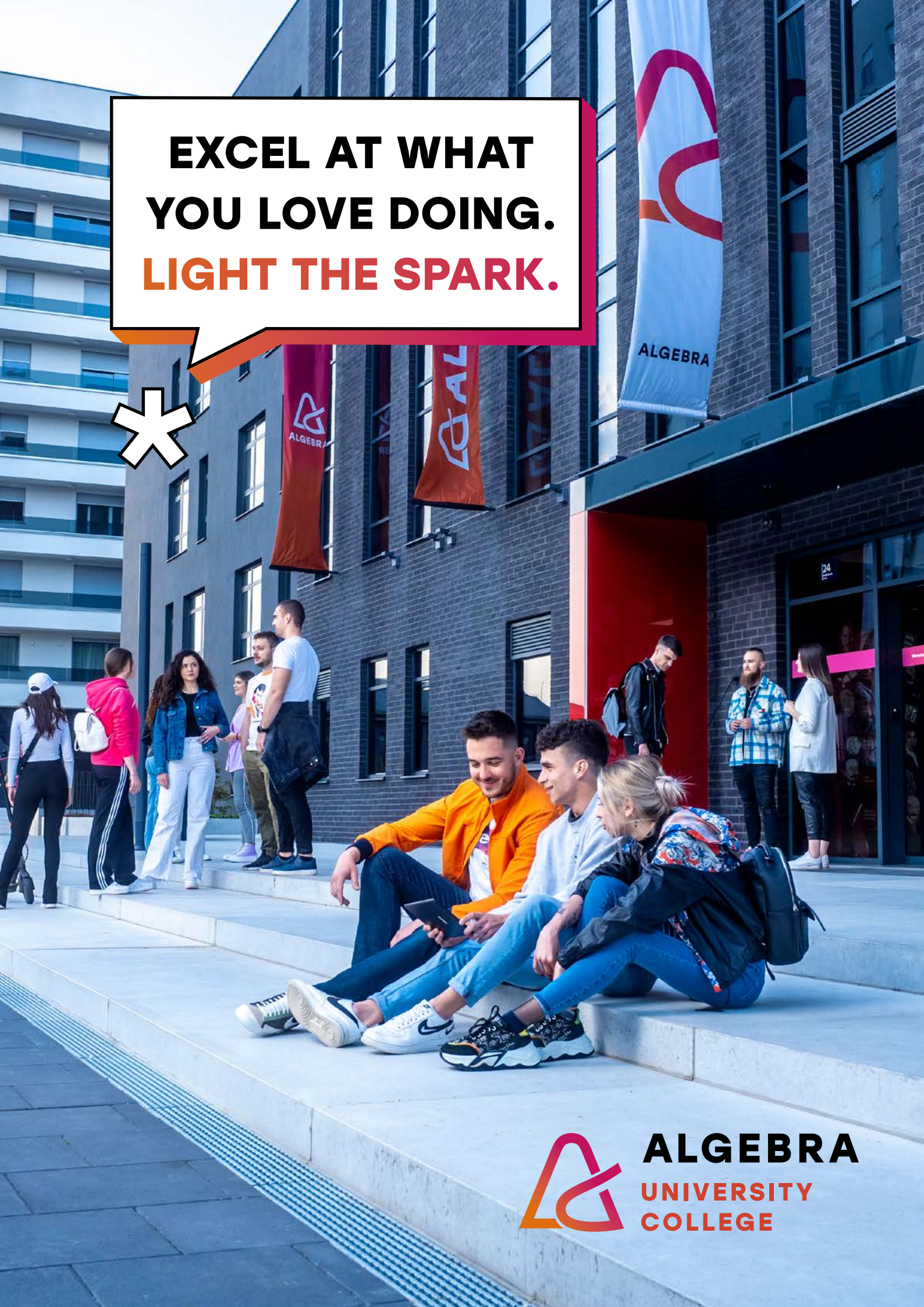
EXCEL AT WHAT
YOU LOVE DOING.
LIGHT THE SPARK.
ALGEBRA
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UNIVERSITY
COLLEGE

CONTENT

GREAT IDEAS
ARE ALWAYS
AROUND YOU.

CREATING DIGITAL FUTURE FOR 24 YEARS.

6

professional bachelor study programmes

8

professional master study programmes

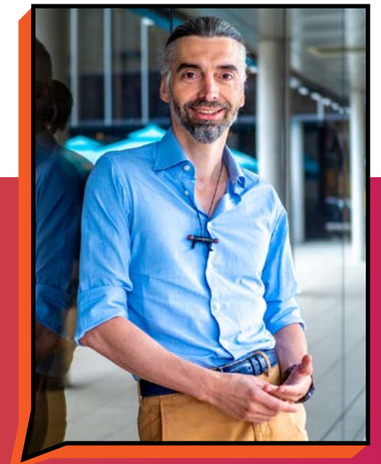
1600

students in higher education

140

professors and associate teachers

Message from the Dean



Let me introduce you to our study programmes up to date with the digital industry to help you choose the best educational institution and tailor-made carreer.

Digital technologies are one of the fastest growing areas of the industry, one that records a strong growth in revenue and number of employees in Croatia and globally. In other words, by choosing a career in a propulsive and growing digital industry, you are guaranteed to have a head start. The same applies to design and digital marketing, a new concept of business that uses digital channels to present products or services in a creative and mindful way. Digital Marketing is the future of marketing and probably the most exciting and creative area of economics today. Our design study programmes on bachelor and master levels have a strong digital background and are considered to be an excellent choice for creatives who want to start their career in fast growing markets of digital media, gaming industry, marketing, and product and interface design. Finally, in our MBA study programme, lectured by teachers from the Kelley School of Business, the fifth best business school in the U.S. which has been providing its MBA programme for more than a 100 years, you will find a unique blend of digital technology, business management and leadership. Our study programmes are focused on the acquisition of practical and applicable knowledge required by the industry.

The acquired knowledge from our study programmes is additionally confirmed by international IT certification, ensuring high visibility and employability to each alumni. We continually improve our educational programmes and teaching approach in line with the labor market changes, technological trends and the needs that the future will create.

I firmly believe that this brochure will provide you with invaluable insights into our educational programmes, our staff and experts from the industry, and international certifications that helped us become a top professional higher education institution unsurpassed in the Croatian educational system.

At the end of the day, it does make a difference which career you choose and where you create it. Therefore, let us create a digital future together.

Mislav Balković, PhD
Dean of Algebra University College

A word from our alumni

ŠIME ZAGORAC,
Norwegian Cruise Line, Norway
Applied Computer Science - System Engineering

"Most of the knowledge gained at Algebra University College could be used directly in practice and studying and working at the same time proved to be an ideal solution. In short, I recommend the Algebra University College to all the people who are looking for quality education."

"The study was full of up to date topics, indeed, almost everything that was done, taught and practiced were things that are immediately applicable in the real world as a knowledge."

DANIJEL STUDEN,
Amazon Data Services, Ireland
Applied Computer Science - System Engineering

DOMAGOJ KRPAN,
Cateia Games, Croatia
Multimedia Computing

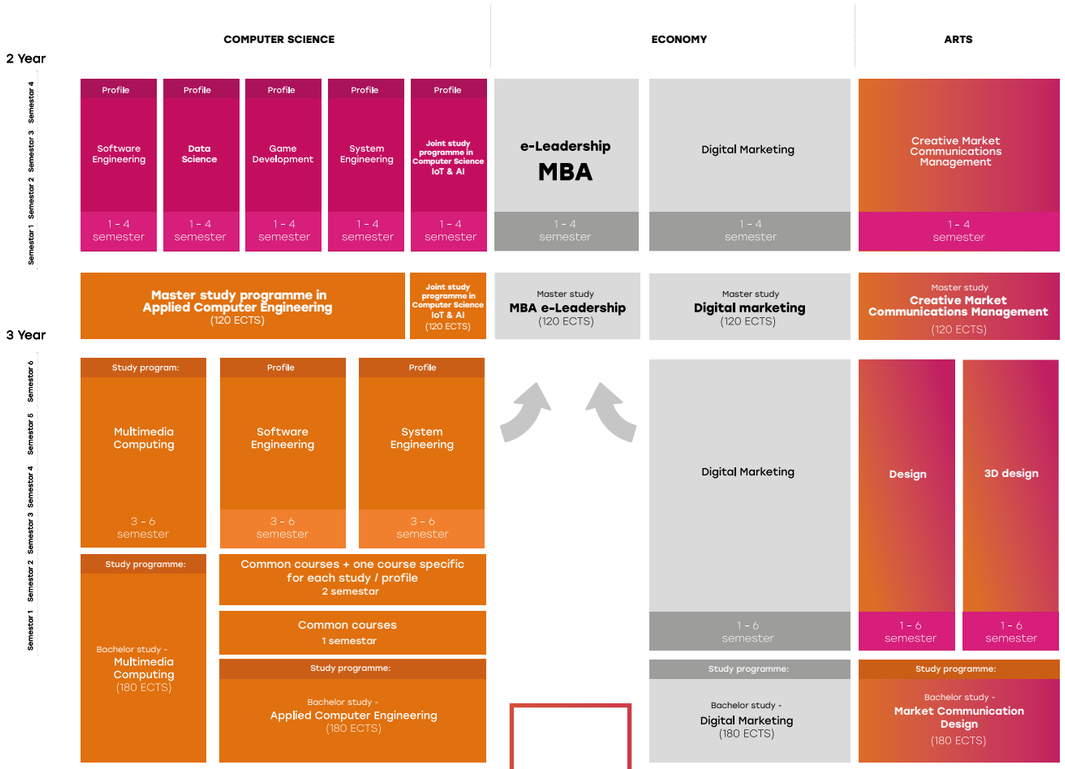
"The knowledge gained during the study itself has been of great help to me. Even when it is not a question of directly applicable knowledge, during my studies I gained an understanding of some of the computer science segments without which I would be a much weaker team mem-ber today."

DOMINIK ANTOLKOVIĆ,
IBM, Czech Republic
Applied Computer Science - System Engineering

"All the subjects I had at Algebra University College were a very good foundation for further professional development."

Our study programmes

At Algebra University College, you can choose between 14 study programmes/specializations at bachelor and master level.
All our master level programmes are organized exclusively in English, even for Croatian students. So, if you are an exchange or international student, feel free to apply for any programme or module.



PROFESSIONAL BACHELOR STUDY PROGRAMMES

- Applied Computer Engineering – **Software Engineering**
- Applied Computer Engineering – **System Engineering**
- **Multimedia Computing**
- **Digital Marketing**
- Market Communication Design – **Design**
- Market Communication Design – **3D Design**

PROFESSIONAL MASTER STUDY PROGRAMMES

- Applied Computer Engineering - **Software Engineering**
- Applied Computer Engineering - **System Engineering**
- Applied Computer Engineering - **Data Science**
- Applied Computer Engineering - **Game Development**
- Joint Master Study Programme in Computer Science - **Internet of Things and Artificial Intelligence**
- **Digital Marketing**
- **Creative Market Communications Management**
- **e-Leadership MBA**

Partnership with Goldsmiths, University of London

Algebra University College signed a partnership agreement with Goldsmiths, University of London in January 2022.

Through this partnership, Algebra University College offers to the next generation of its students a possibility to study in English on bachelor and master study programmes in the fields of computing, design and management, validated by Goldsmiths, University of London.

Students who complete one of these validated programmes will receive a dual degree from Algebra University College and Goldsmiths, University of London.

Goldsmiths
UNIVERSITY OF LONDON

ADMISSION

The admission procedure remains the same, but all candidates will be required to take an English language proficiency assessment.
We will offer free preparatory classes for the English language proficiency assessment to all non-English speaking candidates interested in applying for admission to a programme.
The annual tuition for study programmes can be found on our official website: www.algebra.hr/visoko-uciliste/en/admissions/tuition-fee/.

Goldsmiths, University of London is a world-class public research university based in London, **combining academic excellence with creative and innovative approaches to teaching and learning.**

ABOUT GOLDSMITHS, UNIVERSITY OF LONDON

Founded in 1891, and part of the prestigious University of London since 1904, today Goldsmiths comprises 20 academic departments specialising in the arts, humanities, social sciences, cultural studies, computing, and entrepreneurial business and management.

Goldsmiths is ranked among the top 500 best universities in the world according to QS World University Rankings – the most relevant world university ranking list – with eight of its academic departments in the world top 50 and four in the world top 20.

PROFESSIONAL BACHELOR STUDY PROGRAMMES

Applied Computer Engineering – **Software Engineering**

Applied Computer Engineering – **System Engineering**

Digital Marketing

Market Communication Design – **Design**

Multimedia Computing

Market Communication Design – **3D Design**

If you are considering enrollment in a higher education institution, you have already made the right decision. Choose one of six study programmes in the digital area and thus create a digital future for yourself. Over the course of your studies we will also organize a tailor-made work placement at some of the best companies in Croatia and in the EU. Work experience will not only help you write your final thesis, but it will also be a great opportunity to get to know the future working environment and gain valuable professional acquaintances.

Algebra University College offers to the next generation of its students a possibility to study in English on validated bachelor study programmes in the fields of computing, design and management and a unique chance to receive a dual degree from Algebra University College and Goldsmiths, University of London.

Goldsmiths
UNIVERSITY OF LONDON

The best time to decide to study this exciting and highly in-demand branch of computing is now! **Join us and become a leader on the digital playground.**

PROFESSIONAL BACHELOR STUDY PROGRAMME

Applied Computer Engineering - **SOFTWARE ENGINEERING**

STUDY PROGRAMME DURATION:
6 semesters (3 years)

SEMESTER DURATION:
15 weeks of active teaching + 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
180

WHY STUDY SOFTWARE ENGINEERING?

The time has come to jump on the bandwagon of one of the most sought-after professions in computer engineering and become a key player in the digital domain playground.

Our professional bachelor study programme stands ready to offer you a programme tailored and suited to the latest industry trends and internationally recognized standards. This means that with a diploma from Algebra, you will be ready to sail into corporate waters in Croatia and abroad almost immediately.

Upon receiving your diploma, you will know everything you need to know about software engineering, you will master the dominant object-oriented .NET and JAVA languages, learn how to programme, develop and manage complex apps and IT systems. Wherever you see your future, Agebra's diploma is bound to put the wind in your sails.

IN-DEMAND OCCUPATION
Did you know that over the past ten years software engineering jobs comprise 50% of total employment in Croatia? Choose a dynamic and interesting career that can only grow more in demand in the future.

NUMEROUS BENEFITS
During your studies you will have the possibility to learn and obtain internationally recognized certificates and you will also get a DreamSpark Premium subscription to over 60 Microsoft products.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

This study programme aims to equip you with skills and knowledge to prepare you for a career at home or abroad. Here is a snapshot of what you will be studying:

BASIC CONCEPTS OF COMPUTING
You will get to know the basic concepts, structure and principles of processors, computer systems, computer networks and their components.

WEB TECHNOLOGIES
You will learn the basics of HTML and CSS, the JavaScript programming language and programme web apps in the .NET framework.

MOBILE PROGRAMMING
You will learn how to plan and develop interactive applications and mobile games, as well as become proficient in designing adapted interfaces for Android devices.

INTRODUCTION TO COMPUTER NETWORKS
Understand the basic concepts, structure and principles of computer networks and their components.

OBJECT-ORIENTED PROGRAMMING
You're worth the number of languages you speak. This is especially important in the world of programming and software engineering. Learn how to work with object-oriented languages such as .NET, C#, C++, Python.

DATA PROTECTION AND SECURITY
Learn all there is to know about key elements of data protection such as encryption, managing decipher keys, access control, data classification, monitoring databases and hiding data.

COMPLEX DATABASES
Gain understanding and learn methodology of development, programming and security on Microsoft and Oracle database technologies.

BUSINESS ADMINISTRATION AND MANAGEMENT
Learn how modern-day companies function in a free-market economy and how to manage human resources issues with application of specific decision-making techniques.

PROJECT MANAGEMENT
Discover tested and proven methods of managing project teams and how to lead projects from idea inception to overall execution with an emphasis on effective access to resources and systematic reporting.

ADAPTABILITY

Develop a style of thought and focus on how best to adapt to various situations and challenges. Be ready to conquer the demands of the digital world.

STANDARDS SUCH AS COBIT, MOF, ITIL
Understand development, planning and managing IT systems in line with modern technologies, paradigms, frameworks and protocols.

WORK IN A DYNAMIC ENVIRONMENT
Forget monotonous and boring jobs. Projects often evolve and change on a daily basis. We'll teach you how to maintain control over a fluid situation.

PROJECT TEAM WORK
With large and complex business applications being developed, there is usually a larger number of experts involved. We'll teach you how to be a part of that team and how to maximize efficiency.

EXAMPLES OF JOBS WE'RE PREPARING YOU FOR

DEVELOPMENT OF COMPLEX COMPUTER APPLICATIONS FOR DESKTOP AND WEB
You will be developing applications and turning user requests into functionalities from market analysis to product development.

DEVELOPMENT OF COMPUTER APPLICATIONS FOR MOBILE DEVICES
Thousands of new ideas are being developed each day for that one perfect mobile app. Be a part of the new Instagram, WhatsApp or Twitter.

DEVELOPMENT AND MANAGEMENT OF INFORMATION SYSTEMS
The perfect job awaits those who get excitement from solving problems in a dynamic environment. You will oversee the installation and functioning of complex systems and take part in strategic planning and quality control.

MANAGE APPLICATION DEVELOPMENT PROJECTS
You will manage development teams and make sure that all pieces of these complex systems fall into place and in line with the client's wishes.

DEVELOPMENT OF BUSINESS INFORMATION SYSTEMS
High quality information systems can greatly enhance business competitiveness and their development requires specialist experts in the field of software engineering.

ĐANI PAŠIĆ, Croatia studied Software Engineering at Algebra University College

He enrolled in Algebra as a part-time student, and having achieved a brilliant result at the entrance exam, he received a fully funded scholarship. Today, Đani works as a software engineer in one of the leading ICT companies Ericsson Nikola Tesla, in research and development department.

"Software engineering is one of the most exciting branches of the entire business industry. People from all around the world are looking for challenging tasks which will drive the entire industry. Software engineering is not only about writing a programming code, but about connecting various business disciplines into an integrated solution to real-world problems.
As a part of that world, I can't be more satisfied with my life decision. As an expert in the field of software engineering, I think I can be a part of major changes that are bound to happen."

First year

LECTURE PLAN
Professional Bachelor Study Programme in Applied Computer Engineering -
SOFTWARE ENGINEERING

Second year

Third year

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
English for IT	45	4
Mathematics	60	5
Basics of digital electronics	60	6
Programming	75	6
Business software tools	45	4
Introduction to computer networks	60	5
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Computer architecture	60	5
Mathematical analysis	60	5
Basics of business communication	60	5
Basics of business economics	45	4
Data structures and algorithms	60	6
Introduction to databases	60	5

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Authentication systems and databases	45	4
Probability and statistics	60	5
Operating systems	60	5
Object-oriented programming	75	6
Standards in internet technology application	60	5
Database development	60	5
SECOND YEAR, SEMESTER 3 4		
Courses	**Hours**	**ECTS**
Project management	45	4
Information system security 1	60	5
Java programming 1	75	6
Project approach to applications development	45	4
Development of web applications	60	6
Object-oriented programming - lab in .net environment	60	5

THIRD YEAR, SEMESTER 5		
Courses	**Hours**	**ECTS**
Organization and management	45	4
Management of information systems	45	4
Software engineering	60	5
Accessing data from program code	60	5
Elective Courses	**Hours**	**ECTS**
Application development for mobile devices	60	6
Java programming 2	60	6
Decision-making support systems	60	6
THIRD YEAR, SEMESTER 6		
Courses	**Hours**	**ECTS**
Information systems in business administration	45	4
Final thesis/Internship	0	10
Designing and developing a complete application solution	60	6
Interoperability of information systems	60	5
Elective Courses	**Hours**	**ECTS**
ICT tools in project management	60	5
Java web programming	60	5

CERTIFICATIONS available to students within the curriculum:

1. **ECDL Start (4 exams)**
2. **IT SMF – ITIL Foundation**
3. **Oracle Certified Associate (OCA)**
4. **Exam AZ-204: Developing Solutions for Microsoft Azure**
5. **Android certified application developer**

PROFESSIONAL BACHELOR STUDY PROGRAMME

Applied Computer Engineering - **SYSTEM ENGINEERING**

STUDY PROGRAMME DURATION:
6 semesters (3 years)

SEMESTER DURATION:
15 weeks of active teaching
+ 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
180

System engineers are the second most sought after group of IT experts in Croatia and the EU. Should you choose to embark on this career, there is a demanding and challenging multidisciplinary profession waiting for you.

WHY STUDY SYSTEM ENGINEERING?

The study programme is a perfect choice if you love to think outside the box, come up with solutions to complex problems or simply create order out of chaos. Upon receiving a diploma, you will know everything necessary for the implementation and maintenance of complex IT systems based on all the cutting-edge technologies available today.

The three-year bachelor professional study programme Applied Computer Engineering - System Engineering aims to equip you with the skills and knowledge that will enable you to build a career in the real world of IT system engineering anywhere in the world.

IN-DEMAND OCCUPATION

Did you know that over the past 10 years Systems Engineers have been one of the most sought-after occupations amongst IT professionals in Croatia? Choose a dynamic and interesting career for which demand is only bound to grow in the future, boosted by Cloud Computing infrastructure and ever-increasing focus on security.

NUMEROUS BENEFITS

During the study you will have the possibility to learn and obtain internationally recognized certificates and you'll also get a Dreamspark Premium subscription to over 60 Microsoft products.

THE WHOLE IS GREATER THAN THE SUM OF ITS PARTS

Maybe you are not aware, but the work of system engineers is what enables you to read this text and use internet services like Google, Facebook, Instagram, Twitter, YouTube and many others that we today all use today to connect to other people. Over the course of your entire study, you will have more and more understanding of the technologies that are behind every successful business. You will learn all the basic concepts used in IT systems and how IT systems are designed and built, why they are designed and built in a certain way, how operating systems, server hardware, virtualization, network, and security are combined to become the IT system YOU want to create. Here is a snapshot of what you will be studying:

COMPUTER ARCHITECTURE

The first thing you will learn is how computers are built and what the bits and pieces that comprise hardware are. You will learn about internal logic and architecture of computers, arithmetic and logic instructions, number system and codes, complex combinational logic circuits, motherboards, single and multicore processors, different types of memory and much more.

COMPUTER NETWORKS

This is one of the core concepts in our System Engineering study programme. Computer network enables communication inside and between IT systems, this is the glue that binds everything else. After a very interesting and rewarding journey, you will become adept in implementing even the most complex networks that are used today in modern IT systems.

OPERATING SYSTEMS

Today, as you probably already know, everyone is using some form of operating system to do their work. Operating systems are like a brain that does all the calculations and makes all the decisions. At the end of your study, you will use YOUR brain and all of the skills and knowledge you will have acquired to deploy and tune operating systems infrastructure of modern companies and keep it up and running in perfect condition.

SECURITY

Security is a very important part of the IT system and it is your responsibility as a system engineer to maintain a high level of security

in an IT system under your control. Once you finish all the required courses, you will be able to implement various security technologies in wired and wireless networks, hardening of operating systems and using next-generation firewalls to build secure tunnels over the public network and enable remote users to securely connect to companies' headquarters.

DATABASES

Your task as a system engineer will be installation, maintenance, and protection of this vital part of the IT system. Without databases nothing would be answered, not even your login would work. In this part of your studying, you will learn about databases and their role in the IT system. Knowledge and skills that you acquire will be highly sought-after on the labor market

INFORMATION SYSTEMS IN BUSINESS ADMINISTRATION

If you have lots of data and even extract information and gain knowledge from that data, the organization has little use of it, if any, if you do not know how to organize all that in a meaningful way for your customers. That is why you will learn about how ERP, CMS, and CRM systems are implemented and how they work to support business decision making.

SOFT SKILLS

If you think that soft skills are not important in today's dynamic and diverse world you are sorely mistaken. For you, as a system engineer, it is of utmost importance to be able to clearly communicate and present your solution in a way that your customers and your partners can understand. This is necessary in order for you to be efficient in the execution of your proposals. This is what makes the difference between the technician and a full-stack maverick system engineer.

EXAMPLE OF JOBS WE'RE PREPARING YOU FOR

INFORMATION SYSTEMS SECURITY ADMINISTRATOR

Take control of running security for the entire system including planning, installation and maintenance.

DEVELOPMENT AND ADMINISTRATION OF INFORMATION SYSTEMS

This is an ideal role for those wishing to solve problems in a dynamic environment. You will supervise installation and operation of complex systems as well as take part in strategic planning of quality control.

PROJECT MANAGEMENT IN IT

Experts with thorough knowledge of project methodology are an important factor in managing a vast range of projects in the field of IT.

DEVELOPMENT OF BUSINESS INFORMATION SYSTEMS

High quality information systems can greatly enhance business competitiveness and their development requires specialist experts in the field of system engineering.

DŽENI VUJKOVIĆ,
Croatia
System Engineering student
at Algebra University College

Dženi enrolled in the System Engineering study programme without prior knowledge but with a strong desire and will to learn. Today, she is completing her bachelor studies and already preparing to continue at master level, while working at SPAN – a global IT consultancy group founded in Croatia. Her daily business routine consists of maintaining networks of existing users, maintaining and implementing tools and security solutions as well as designing projects for new users.

"Algebra University College has opened up new opportunities for me, an entire professional field, giving new meaning to my life. I like that the teaching is practice-based and focused on the latest industry trends, particularly the computer networks courses. The lecturers helped me understand real-life scenarios and issues and how to solve them. They taught me discipline, how to think and most importantly - they encouraged us to try new things, to not be afraid of making mistakes but to learn from them."

First year

LECTURE PLAN
Professional Bachelor Study Programme in Applied Computer Engineering - **SYSTEM ENGINEERING**

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
English for IT	45	4
Mathematics	60	5
Basics of digital electronics	60	6
Programming	75	6
Business software tools	45	4
Introduction to computer networks	60	5
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Computer architecture	60	5
Mathematical analysis	60	5
Basics of business communication	60	5
Basics of business economics	45	4
Routing and switching in computer networks	60	6
Introduction to databases	60	5

Second year

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Authentication systems and databases	45	4
Probability and statistics	60	5
Operating systems	60	5
Administration of open source operating systems	60	5
Implementing complex network environments	75	6
Administration of operating systems	60	5
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Project management	45	4
Information system security 1	60	5
Advanced administration of operating systems	60	5
Advanced administration of open source operating systems	60	6
Computer network security	60	5
Virtualization of IT systems	60	5

Third year

THIRD YEAR, SEMESTER 5		
Courses	**Hours**	**ECTS**
Organization and management	45	4
Management of information systems	45	4
Automatization and orchestation in IT systems	60	6
Collaboration systems	60	6
Elective Courses	**Hours**	**ECTS**
Backup and recovery of IT systems	60	5
Information system security 2	60	5
Implementation of information systems	60	5
Virtualization using open source and commercial solutions	60	5
THIRD YEAR, SEMESTER 6		
Courses	**Hours**	**ECTS**
Information systems in business administration	45	4
Final thesis/Internship	0	10
Implementing local wireless computer networks	30	5
System engineering - Practicum	60	6
Elective Courses	**Hours**	**ECTS**
ICT tools in project management	60	5
Implementing cloud computing	60	5
Software defined networks	60	5
Implementing voice over IP solution	60	5

CERTIFICATIONS available to students within the curriculum:

1. **ECDL Start (4 exams)**
2. **IT SMF – ITIL Foundation**
3. **AZ-900 Microsoft Azure Fundamentals**
4. **AZ-104 Microsoft Azure Administrator**
5. **MS-203 Microsoft 365 Messaging**
6. **Cisco Certified Network Associate – CCNA**
7. **RedHat Certified System Administrator – RHCSA**

PROFESSIONAL BACHELOR STUDY PROGRAMME

MULTIMEDIA COMPUTING

STUDY PROGRAMME DURATION:
6 semesters (3 years)

SEMESTER DURATION:
15 weeks of active teaching
+ 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
180

If your passion lies in discovering new technologies and if you dream of an exciting career during which you will develop and apply the latest cutting-edge solutions in a creative way, then the Multimedia Computing study programme is the right option for you.

WHY STUDY MULTIMEDIA COMPUTING?

Do you wish to come on board and become an architect of the digital age?
During your studies you will be acquainted and ushered into the world of digital content creation in 2D and 3D animation, audio and video material. We will teach you how to develop web pages and how to design user interfaces.
Upon obtaining your diploma you will know how to incorporate media technologies into every project and how to master best practices in creating multimedia content. You are bound to become a user focused design guru and will be ready to meet all the challenges of this dynamic career in Croatia and abroad.

IN-DEMAND OCCUPATION
Did you know that multimedia computing has been breaking records daily in terms of users and employment growth rates? Choose a dynamic and fascinatingly interesting career for which demand will only grow in future years.

NUMEROUS BENEFITS
During your studies you will have the possibility to study and obtain internationally recognized certificates, you will also get a DreamSpark Premium subscription to over 60 Microsoft products and a possibility to use video and audio equipment and studio for your projects.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

The three-year Multimedia Computing study programme aims to equip you with the skills and knowledge to prepare you for a career in the real world, whether at home or abroad. Here is a snapshot of what you will be studying:

USER INTERFACE DESIGN
Discover best practices in development of the most important element of every web page and application, the user interface.

MULTIMEDIA IMPLEMENTATION
Research the tested and proven methods and solutions for implementing multimedia solutions in social media, organizations and businesses.

DEVELOPMENT OF MULTIMEDIA SYSTEMS
Understand the principles of system development, which include various fields of IT competencies.

2D ANIMATION
Learn everything there is to know about ‘traditional animation’, manipulating objects in two dimensional spaces. You will be able to use the acquired skills in creating advertisements in film, TV shows, computer games and web pages.

CREATION OF NEW BUSINESS SOLUTIONS
Learn how to focus your creative energy and use your knowledge of user interface design on creating new business solutions.

PROCESSING OF DIGITAL PHOTOGRAPHY
Perfect the use of all various tools required to process digital photos, whether it's simple photo editing, advanced manipulation or working on that perfect masterpiece.

SOUND PROCESSING
Master the modern audio workstations for sound processing including advanced processing and creative manipulation of sound signals.

VIDEO POST PRODUCTION
Learn how to turn raw video material into a professional product with creative editing of image sound and graphics.

PRIORITIZATION
Master the delicate skill set required for balancing and prioritizing tasks. Learn to keep your cool and enhance efficiency.

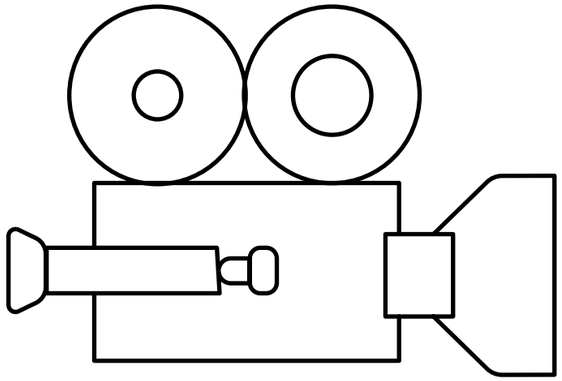
EXAMPLES OF JOBS WE'RE PREPARING YOU FOR

ENGINEER FOR DEVELOPMENT OF 3D MODELS, ANIMATION AND VISUALIZATION
True experts in this field are hard to come by and are very highly sought-after.

MANAGER FOR MULTIMEDIA PROJECTS
Become a leader of a multidisciplinary team and manage project execution.

WEB DESIGNER
Every web design project needs a UI designer and other roles with skills and knowledge we will transfer to you.

EXPERT ON DIGITAL AND AUDIO MASTERING
The quality of the final end product will rest on your shoulders.



EMANUEL MILIČEVIĆ,
Croatia
Screen designer - Infinum

Almost 80 employees, 3 offices and over 10 years of developing exceptional software. Multimedia Computing study programme equipped Emanuel for such a challenging job. As a screen designer at Infinum, he applies a lot of knowledge he has already gained in the first year of the bachelor study.

"I had already been enrolled in a study programme that did not meet my expectations, so I realized that Algebra University College was my first choice after analyzing the courses and comparing them to other studies. After a conversation in the Career Center, I made the final decision to enroll, and I haven't regretted it as today I am acquiring knowledge and skills in various fields that I am interested in - design, video, photography and 3D modeling. Algebra's greatest advantages are definitely my colleagues from various areas of computing and professors who have both teaching and practical experience."

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
English for it	45	4
Mathematics	60	5
Business software tools	45	4
Programming	75	6
Visual communications design	60	5
Introduction to marketing	75	6
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Applied physics	60	5
Psychology of customer experience	60	4
Introduction to digital photography	60	5
Introduction to object-oriented programming	60	6
Web and user interface design	60	5
Introduction to databases	60	5

CERTIFICATIONS available to students within the curriculum:

1. **ECDL Start (4 exams)**
2. **Zend Certified PHP Engineer**
3. **Adobe Certified Associate – (Video Communication with Adobe Premiere Pro)**
4. **Google Ads Qualified Individual**
5. **Adobe Certified Associate (Visual Effects & Motion Graphics)**
6. **Adobe Certified Associate (Visual Design)**
7. **Adobe Certified Associate (Print & Digital Media Publications)**

First year

LECTURE PLAN
Professional Bachelor Study Programme in
MULTIMEDIA COMPUTING

Second year

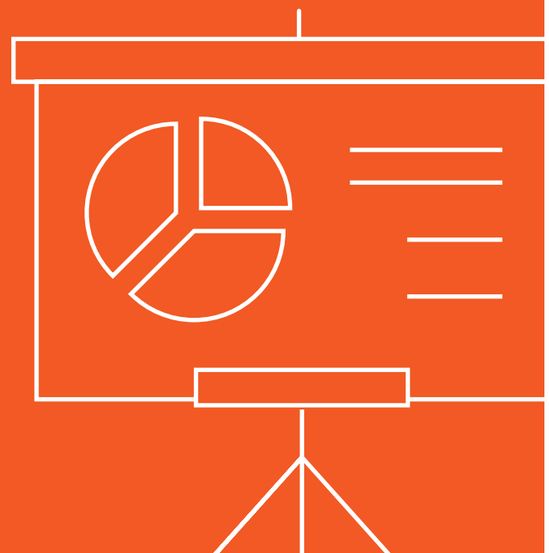
Third year

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Advanced programming	60	6
Creation postproduction and optimization of raster images	60	5
Introduction to video production	45	5
Standards in internet technology application	60	5
Strategies of interaction and narrative	45	5
Elective Courses	**Hours**	**ECTS**
Basics of business economics	45	4
Electroacoustics and professional audio equipment	45	4
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Advanced standards in internet technology application	60	6
Client side scripting	60	5
Project development of video games	60	5
Video postproduction	60	5
Elective Courses	**Hours**	**ECTS**
Sound editing	60	5
Information system security	60	5
Multimedia publishing	45	4
Project management	45	4

THIRD YEAR, SEMESTER 5		
Courses	**Hours**	**ECTS**
3D modelling and texturing	60	5
Basics of business communication	60	5
Development of web applications	60	5
Video effects and motion graphics	45	5
Elective Courses	**Hours**	**ECTS**
Application development for mobile devices	60	6
Content management systems	45	4
Research and development of multimedia content	45	4
Development of 2D video games	60	6
THIRD YEAR, SEMESTER 6		
Courses	**Hours**	**ECTS**
Application development for mobile devices	45	5
Content management systems	60	5
Research and development of multimedia content	45	4
Development of 2D video games	0	12
Elective Courses	**Hours**	**ECTS**
Customer relationship management and implementation	45	4
Internet marketing	45	4

PROFESSIONAL BACHELOR STUDY PROGRAMME

DIGITAL MARKETING



STUDY PROGRAMME DURATION:
6 semesters (3 years)

SEMESTER DURATION:
15 weeks of active teaching
+ 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
180

Make a giant leap for your future in the world of digital marketing with a **diploma from Algebra that will open many doors for you, in Croatia and abroad.**

WHY STUDY DIGITAL MARKETING?

Digital marketing is fast becoming one of the most sought-after fields of economy meaning that this degree is likely to shorten your job search significantly.

Bachelor professional study programme in Digital Marketing

- gives students extensive knowledge of all parts of marketing, with special emphasis on technology, digital communication channels and all the changes and disruption they create on innovation, product and service development, development of companies and digital transformation and enhanced user experience.
- allows students to start their action-packed and creative career even after only three years of study programme in all kinds of companies and institutions.
- enables students to join University College's digital agency Digital Talents and experience real world under the mentorship of most prominent marketing experts in Croatia.
- gives students a wide and solid knowledge base but very specific and deep in terms of digital skills at the same time. This allows students to join different teams and agencies and be prepared for what awaits in the real world.

IN-DEMAND OCCUPATION
Did you know that digital marketing professionals are very highly sought-after in Croatia and abroad? Choose an interesting and dynamic career for which demand will only grow in the future.

NUMEROUS BENEFITS
During your studies you will have the possibility to learn and obtain internationally recognized certificates and you will also get a DreamSpark Premium subscription to over 60 Microsoft products.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

The Digital Marketing study programme aims to equip you with the skills and knowledge to prepare you for a career in the real world, whether at home or abroad. Here is a snapshot of what you will be studying:

UNDERSTAND MARKETING
Advertising is just a small part of Marketing and here you are going to learn all P's and C's of Marketing!

MANAGING ADVERTISING CAMPAIGNS
Learn how to effectively connect advertising material with users via social media, advertising networks and search engines.

PSYCHOLOGY AND CONSUMER BEHAVIOUR IN REAL AND DIGITAL ENVIRONMENTS
Human behavior is comprised of various patterns which affect our decision making. You will learn how to assist users with making everyday decisions in line with your own goals!

CREATIVE COMMUNICATIONS CONCEPTS
Familiarize yourself with verbal and visual channels. Your creativity and your understanding of marketing, consumer psychology and market segmentation will prove invaluable.

SECRETS OF THE USER INTERFACE
Understand how a functioning UI can make the end user's life simpler and how to make the world of Internet a better place.

DIGITAL TOOLS FOR STRATEGIC MANAGEMENT OF DIGITAL CAMPAIGNS
You will learn how to use business and technological tools to evaluate and create campaigns. You will become proficient in creating reports, analyses and strategies, and know how to overview campaigns on various communication channels.

GLOBAL TRENDS IN DIGITAL MARKETING
The study programme follows all the latest industry trends. Nowadays this means artificial intelligence, blockchain technology, private marketplace, but who knows what the future has in store in just a couple of years, so we tend to change very fast!

MANAGING DIGITAL PROJECTS AND AGENCY
Master the rules of the game and have a try in app and content development for internet and mobile devices.

MARKET RESEARCH AND USER RESEARCH
Hone your skills and familiarize yourself with online tools for market research in order to better understand consumers and their needs, analyze user behavior and apply different user testing methods.

EXAMPLES OF JOBS WE'RE PREPARING YOU FOR

ONLINE MEDIA PLANNER
You need to have good planning skills and excellent digital advertising knowledge to plan how to achieve your client's goals.

ONLINE ACCOUNT MANAGER
Media agencies are hungry for digital experts and our students fit in their perspective.

DIGITAL MEDIA / MARKETING SPECIALIST
You can fit in flawlessly in any digital marketing and advertising agency.

EXPERT FOR SOCIAL MEDIA
The number of SMEs who are realizing how important social media management is for their business is growing rapidly.

WEB BASED PROJECT MANAGER
Every project requires a responsible and conscientious person who knows all the project development phases like the back of their hand. They need you!

EXPERT FOR DIGITAL COMMUNICATIONS
Professionals with this acquired skill set are in high demand in major international companies.

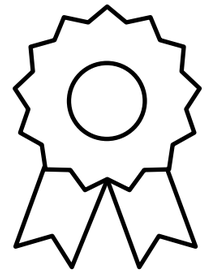
ANTONIA ŠAKIĆ, Croatia
Best Response Media

One of our alumni Antonia Šakić has started working as an at Best Response Media.

"I have always set the bar high for myself, both personally and academically. Therefore, digital marketing is my dream come true. This study programme gave us a strong base for further professional development and prepared us for real life tasks in the agency. We are using skills gained over the course of our studies on a daily basis: from writing a brief, determining target groups and conducting research to setting up and optimizing digital campaigns. We started connecting theory to practice early in the second year and that significantly helped us prepare for the future career."

CERTIFICATIONS available to students within the curriculum:

1. **ECDL Start (4 exams)**
2. **Google Ads Qualified Individual**



First year

LECTURE PLAN
Professional Bachelor Study Programme in
DIGITAL MARKETING

Third year

Second year

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
Business English	60	4
Mathematics	60	6
Introduction to economics	75	7
Introduction to marketing	60	7
Business software tools	45	4
Career - Studying	24	2
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Visual communications design	60	5
Consumer behaviour	60	6
Market research	60	6
Statistics	75	6
Project management	60	5
Career - Communication and presentation skills	24	2

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Interactive systems design	60	6
Integrated marketing communications	60	6
Digital advertising	60	6
Computer tools in visual communication	60	6
User interface development	45	4
Career - Marketing jobs, portfolio and CV	30	2
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Search engine marketing and advertising networks	60	6
Search engine optimizaction	45	4
Interaction analysis in digital marketing	60	6
Content management systems	45	5
Media planning and buying	45	4
Career - Teamwork	30	2
Introduction to research and academic writing	45	3

THIRD YEAR, SEMESTER 5		
Courses	**Hours**	**ECTS**
Content marketing	60	6
Social networks	60	6
Integrated project	60	5
Internship	0	5
Elective Courses	**Hours**	**ECTS**
Creativity and creative expression	60	4
Psychology of customer experience	60	4
Digital projects development and team management	60	4
Programming for digital marketers 1	60	4
THIRD YEAR, SEMESTER 6		
Courses	**Hours**	**ECTS**
Social responsibility in marketing	60	6
eCommerce	60	6
Special topics in digital marketing	45	4
Final thesis	0	6
Elective Courses	**Hours**	**ECTS**
Programming for digital marketers 2	60	4
Marketing agency management	60	4
Psychology in marketing communications	60	4
Multimedia content creation and management	60	4

PROFESSIONAL BACHELOR STUDY PROGRAMME

Market Communication Design – **DESIGN**

STUDY PROGRAMME DURATION:
6 semesters (3 years)

SEMESTER DURATION:
15 weeks of active teaching + 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
180

We will not tell you which way you have to go. But, **we will give you tools and skills to enable you to make your own decisions and find your own way. And to shine like no one before!**

WHY STUDY MARKET COMMUNICATION DESIGN IN DESIGN?

Become a part of a new generation of creative and innovative designers who transform their ideas and knowledge into exciting projects in the field of market communications! Use the latest digital technologies, engage in all aspects of visual design, brand design, print design and more. Explore design as a part of marketing campaigns and get involved in numerous projects for social and commercial needs!

At the time of graduation, you will understand the cultural and artistic dynamics and context in which the design is created. Through your active participation in different projects you will be able to steer through constant technological/digital evolution in design. While creating new value for the end users you will also be able to influence them and all those on the receiving end in the field of communications and marketing.

You will become a master of user-oriented design, ready for all career challenges in design studios, creative agencies, production studios and marketing departments anywhere in the world.

VALUE FOR MONEY
You will have access to the DreamSpark Premium subscription that includes over 60 Microsoft products. Besides, you will be working with designers' tools such as Adobe Illustrator and Adobe Photoshop and get certificates for these.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

The three-year study programme aims to equip you with skills and knowledge necessary for a career in design studios, creative agencies, production studios or marketing departments in different companies. The study programme is designed taking into account the latest trends in the field of art and design. It significantly enhances creativity and creative thinking while at the same time being based on the concepts of teamwork and "design thinking".

VISUAL DESIGN
How to develop good visual identity and branding? How to create a logotype and a book of standards? How to ensure creative and functional visual communication of a product which enables it to be seen and recognized? These are some of the elements of the Visual Design study programme.

TYPOGRAPHY
Knowledge of the evolution of letters and typography, anatomy of characters and their interrelationships, styles of type families, as well as the introduction to typographic terminology will encourage conscious and rational selection of styles and letters in creative projects.

PHOTOGRAPHY
You will learn how to take a good photo, in-depth look at camera features, how to make a photo for promotional purposes or how to fine-tune the lighting using professional photographic equipment.

INTERACTIVE SYSTEMS DESIGN
You will learn how to analyze the interaction between people and technology and how to design a web page or application interface while providing the best user experience and attractive design.

WEB DESIGN AND USER INTERFACE DESIGN
You will study approaches and best practices in the design of the most important part of any application or website – user interface.

INTRODUCTION TO VIDEO PRODUCTION
YouTube is one of the fastest growing communication channels of today and the quantity and quality of video content on the internet is growing steadily. Learn how to make use of it by independently developing a promotional video or other video material.

ANIMATED GRAPHICS
You will acquire knowledge about the animation of objects and characters in two-dimensional space and you will master the key tools of modern digital animation. This will enable you to create attractive solutions in offline or online projects or when creating video material.

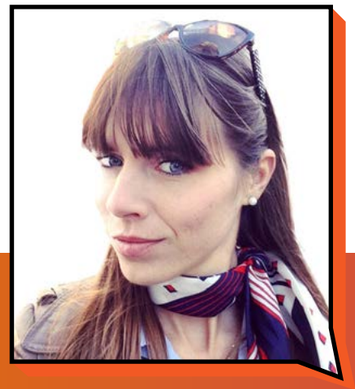
EXAMPLES OF JOBS WE`RE PREPARING YOU FOR

DESIGNER, ART DIRECTOR
A true master Art Director or Designer is a multitasking genius that juggles between marketing, visual communications, arts and applied arts and has a strong insight into newest digital trends. The profession is highly in demand and it is not easy to find experts.

UI AND UX DESIGNER
Every web project needs a good UI and UX designer to put creative ideas, user-friendly interface, and quality content into great shape. Not to mention that those jobs are in very high demand today and are considered to be the jobs of the future.

DIGITAL PHOTOGRAPHY AND VIDEO EXPERT
There are billions of images out there in the world and hours and hours of video content uploaded online every second. You will learn how to make it attractive, appealing, clickable, organic and fun to use.

CREATIVE PROJECTS ACCOUNT
Creatives are not easy to handle, especially in the digital world. They may have great ideas but often lack business sense. You will learn how to combine these two in the best manner – how to get the most out of the creatives and how to sell it in the real world.



MARTA PUNTIJAR, Croatia
Graphic Designer

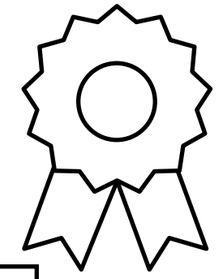
Over the course of your studies, you will participate in a series of individual and group designs, as well as art projects, together with other students, teachers and actual clients, participate in a series of individual and group design and art projects. This way you will master the overall creative process; from understanding the consumer needs and behavior to setting the communication goals and all the way to specifics of various media of visual communication and digital interaction.

”Design study programme has opened many doors of the world in graphic design for me and enabled me to find employment effortlessly. It also helped me start my own business, studio shushe.”

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
Drawing 1 - Drawing techniques	60	5
English language 1	30	3
Computer science	45	4
Marketing	30	3
History of visual communications design	45	4
Psychology of market communication	30	3
Team work and conflict management	30	3
Visual design 1 - Basic elements and principles	60	5
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Drawing 2 - Drawing tehniques	60	5
English language 2	30	3
Creative process	30	3
Creative writing	45	4
Entrepreneurship in creative industries	30	3
Typography 1	45	4
Psychology of consumer behaviour	30	3
Visual design 2 - DTP	45	5

CERTIFICATIONS available to students within the curriculum:

1. **ECDL Start (4 exams)**
2. **Adobe Certified Associate (ACA) - Adobe Illustrator CC**
3. **Adobe Certified Associate (ACA)- Photoshop CC 2015**



First year

Second year

Third year

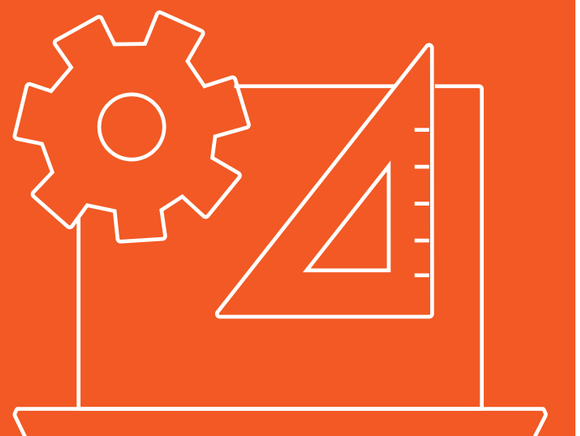
LECTURE PLAN
Professional Bachelor Study Programme in Market Communication Design – **DESIGN**

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Drawing 3 - Art structures	60	5
Introduction to video production	30	3
Photography 1	45	3
Photographic content design	30	3
Typography 2	45	4
Visual design 3 - Logotype and graphic standards	45	5
Web and screen design 1 - Interaction systems	60	4
Interactions design	30	3
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Drawing 4 - Art structures	60	4
Contemporary society	30	3
Photography 2	45	3
Internship	0	5
Multimedia content design	30	3
Visual design 4 - Visual identity	45	5
Web and screen design 2 - Standards in internet technology application	60	4
Elective Courses	**Hours**	**ECTS**
Digital ilustration 1	30	3
Video production	30	3

THIRD YEAR, SEMESTER 5		
Courses	**Hours**	**ECTS**
Public visual communications design	45	4
Culture and aesthetics	30	3
Art direction 1	30	3
Print and colour	45	4
3D design 1	45	4
Visual design 5 - Packaging	45	5
Web and screen design 3 - User interface design	60	4
Elective Courses	**Hours**	**ECTS**
Digital ilustration 2	30	3
Video postproduction	30	3
THIRD YEAR, SEMESTER 6		
Courses	**Hours**	**ECTS**
Spatial visual communications design	45	4
Art direction 2	30	3
Final thesis	0	7
Visual design 6 - Individual projects	45	5
Web and screen design 4 - Application design	60	4
3D design 2	45	4
Elective Courses	**Hours**	**ECTS**
Animated graphics	30	3
Research draft	30	3

PROFESSIONAL BACHELOR STUDY PROGRAMME

Market Communication Design – 3D DESIGN



STUDY PROGRAMME DURATION:
6 semesters (3 years)

SEMESTER DURATION:
15 weeks of active teaching + 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
180

WHY STUDY 3D DESIGN?

The 3D Design study programme equips you with the knowledge needed to become a contemporary artist ready to work in the film, television and computer games industries. You will acquire fundamental skills of drawing and visual thinking and gain an understanding of composition, visual space, color and lighting. On top of this traditional knowledge base, you will acquire the knowledge of digital sculpture, 3D visualization, animation and digital design. During your studies, you will unlock your creative potential in modern technology by creating realistic and imaginary characters and objects in line with emerging trends in real business environments. Throughout the three-year programme, you will learn to express yourself and create in a virtual world, and have a chance to prepare a portfolio that will be a stepping stone to your further career.

We will prepare you to become an expert in creating various aspects of virtual worlds. From conceptualizing characters, objects and environments, to specialized animation and visualization 3D Design using the latest technology, you will learn to create in a virtual environment, and use your creations in a variety of real and virtual scenarios. Depending on your preferences, you will be able to further specialize in concept art, digital sculpture and 3D shaping, animation, film and video, as well creative process analysis and artistic direction.

VALUE FOR MONEY
You will have access to the DreamSpark Premium subscription that includes over 60 Microsoft products. In addition, you will be working with designers' tools such as Adobe Illustrator and Adobe Photoshop and get the corresponding certification.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

The three-year 3D Design study programme aims to equip you with the knowledge and skills necessary for a career in game development, animation and 3D Design studios, departments of creative agencies, and production studios, whether in Croatia or abroad.
This study programme was designed taking into account the latest trends in the field of art and 3D Design. Its goal is to develop creativity and creative thinking, but also to focus on teamwork and the development of a "designer mindset."

TYPOGRAPHY
The evolution of letterforms, typeface anatomy and relationships between characters, as well as familiarity with the basic concepts of typography will enable you to choose styles to use in 3D Design and animation. In addition, the use of complex typographic structures as well as the design of letterforms, and the acquisition of drawing skills will be the basics that you will learn in your courses.

FILM AND VIDEO
New technologies have established the internet as the most important distribution platform, but the content production process is still dependent on the creativity of the author. Both sides must be structured in such a way that they attract the intended audience and that the recipients of the story can easily recognize its message.

3D LIGHTING AND RENDERING
This course will teach you to understand the important role of light in scene creation and visual art in general. You will learn how to use different types of lighting, realistic lighting, indoor and outdoor lighting, how to approach scene rendering, optimize models and textures and how to blend them with the

virtual environment to get the best result from a finished image or animation in a particular style.

CHARACTER ANIMATION
This course will teach you to map the faces of your virtual characters in order to give them emotion. You will learn the basics of acting and carefully timed and planned gestures to achieve a higher professional level of animation and make the animated characters more understandable. You will learn about the professional standard methodology currently in use and the principles of creating animations of character movement, body language and acting using your own characters.

TEXTURING
Texturing applies the final "skin" to any 3D object. The textures are created with the latest tools by creatively selecting materials, colors, and patterns that, using photo references as well as your own drawing and painting, are created in a wide variety of hyperrealistic and stylized solutions. Graphics in computer games and film special effects depend largely on textures and the way they are created, and this course will prepare you to work on such and other projects.

PLASTIC ANATOMY
Nowadays, as computer graphics and special effects have reached hyperrealistic levels, a basic knowledge of anatomy has become extremely important, especially when it comes to bones, muscles and tendons visible on humans and animals. Learning how to perceive and create human bones, joints, movements, as well as the way these joints, ligaments, and tendons work, is extremely important in order to create characters that meet today's standards.

EXAMPLES OF JOBS WE ARE PREPARING YOU FOR

DIGITAL DESIGNER
A true master Art Director or Designer is a multitasking genius that juggles between marketing, visual communications, arts and applied arts and has a strong insight into newest digital trends. The profession is highly in demand and real experts are had to come by.

3D MODELS AND FORMS DESIGNER
Every 3D design project needs a designer to shape a premium product using creative ideas, a user-friendly interface and quality content. Needless to say this profession is extremely sought after and considered a career of the future.

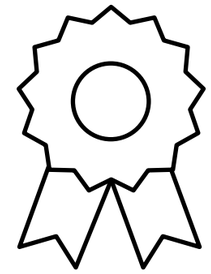
3D ANIMATOR
In the digital world, it is important to make compelling animation movements, know about timing transitions and identify potential mistakes. Working with character movements, body language, and acting on your own characters is something you know well, and you will learn how to make that content attractive, organic, and fun to use and consume.

CREATIVE PROJECTS MANAGER
Creatives are not easy to handle, especially in the digital world. They may have great ideas but often lack business sense. You will learn how make the best of both worlds – how to get the most out of the creatives and how to sell the product in the real world.

Over the course of your studies, you will participate in a series of individual and group designs, as well as art projects, together with other students, teachers and actual clients, participate in a series of individual and group design and art projects. This way you will master the overall creative process: from understanding consumer needs and behavior, through setting the communication goals, all the way to the specifics of various media of visual communication and digital interaction.

CERTIFICATIONS available to students within the curriculum:

1. **ECDL Start (4 exams)**
2. **Adobe Certified Associate (ACA)- Photoshop CC 2015**



First year

LECTURE PLAN
Professional Bachelor Study Programme in Market Communication Design –
3D DESIGN

Second year

Third year

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
Drawing 1 - Drawing techniques	60	5
English language 1	30	3
Computer science	45	4
Marketing	30	3
History of visual communications design	45	4
Psychology of market communication	30	3
Team work and conflict management	30	3
Visual design 1 - Basic elements and principles	60	5
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Drawing 2 - Drawing tehniques	60	5
English language 2	30	3
Creative process	30	3
Creative writing	45	4
Entrepreneurship in creative industries	30	3
Typography 1	45	4
Digital forms design	45	4
Introduction to 3D modeling	45	4

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Drawing 3 - Art structures	60	5
Introduction to video production	30	3
Photography 1	45	3
Photographic content design	30	3
Typography 2	45	4
Basics of animation	60	5
Light and colour	45	4
Organic forms design	45	3
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Drawing 4 - Art structures	60	4
Contemporary society	30	3
Photography 2	45	3
Internship	0	5
Body mechanics	60	5
Hard-surface modelling	45	4
Character animation	30	3
Optional Courses	**Hours**	**ECTS**
Conceptual illustration 1	30	3
Video production	30	3

THIRD YEAR, SEMESTER 5		
Courses	**Hours**	**ECTS**
Public visual communications design	45	4
Culture and aesthetics	30	3
Art direction 1	30	3
Rigging for animation	45	4
Plastic anatomy	60	5
Texturing	60	4
3D lighting and rendering	45	4
Optional Courses	**Hours**	**ECTS**
Conceptual illustration 2	30	3
Video postproduction	30	3
THIRD YEAR, SEMESTER 6		
Courses	**Hours**	**ECTS**
Spatial visual communications design	45	4
Art direction 2	30	3
Final thesis	0	7
The principles of character conceptualization	45	4
Portfolio	45	5
Comparative anatomy	45	4
Optional Courses	**Hours**	**ECTS**
Animated graphics	30	3
Research draft	30	3

PROFESSIONAL MASTER STUDY PROGRAMMES

Applied Computer Engineering - **Software Engineering**

Applied Computer Engineering - **System Engineering**

Applied Computer Engineering - **Data Science**

Joint Master Study Programme in Computer Science - **Internet of Things and Artificial Intelligence (with Epitech)**

Applied Computer Engineering - **Game Development**

Digital Marketing

Creative Market Communications Management

e-Leadership MBA

Choose how you want to upgrade the foundations created at the bachelor level or boost your leadership career at our MBA study! Choose a study programme that you are most interested in and release your full potential.

Algebra University College offers to the next generation of its students a possibility to study in English on validated bachelor study programmes in the fields of computing, design and management and a unique chance to receive a dual degree from Algebra University College and Goldsmiths, University of London.

Goldsmiths
UNIVERSITY OF LONDON

PROFESSIONAL MASTER STUDY PROGRAMME

Applied Computer Engineering - **SOFTWARE ENGINEERING**

STUDY PROGRAMME DURATION:
4 semesters (2 years)

SEMESTER DURATION:
15 weeks of active teaching
+ 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
120

Upon receiving your well-deserved diploma, you will be a specialist in the highly sought-after fields of software engineering.

WHY STUDY SOFTWARE ENGINEERING?

The software engineering study programme is one of four specializations in the specialist master professional study programme in Applied Computer Engineering.

The time has come to decide how you wish to build on your bachelor foundation. Choose a specialization in the field that interests you the most and become a true expert.

We have ensured a work placement internship for you with one of the well-known industry players in Croatia or the EU. Use that experience as part of your final thesis and also maximize the opportunity to meet and network with industry professionals.

Upon receiving the diploma, you will be a specialist for the most in-demand segment in software engineering. They range from internet programming, app development for mobile devices, advanced programming techniques and development of business intelligence. Furthermore, you will be acquainted with computer cryptography, e-commerce, robotics, Internet of Things and computer game development.

IN-DEMAND OCCUPATION
Did you know that over the past 10 years software engineers are the second most sought-after group of IT professionals in Croatia? Choose a dynamic and interesting career for which demand will grow in the future.

NUMEROUS BENEFITS
During the study programme you will have the possibility to learn and obtain internationally recognized certificates and you'll also get a Dreamspark Premium subscription to over 160 Microsoft products. Also, you can use our private cloud to work on your study or research projects or our research facilities, accelerator / coworking to setup your business idea and / or startup.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

Master studies allow you to further perfect your know-how of your favorite field. We will acquaint you with the latest industry trends, insights and skills that employers demand. Here is a snapshot of some of them:

EXPERTISE IN JAVA, C# AND Python LANGUAGES
Hone your programming languages skill set in Java, C# and Python as well as development tools and usage of object-oriented methodology.

ANALYSIS AND CRITICAL THINKING
Develop precise mathematical approaches to solving unusual, partly defined problems with contradictory requirements. This will enable you to solve complex problems more easily and also user challenges/requirements after the study.

ADVANCED MODELLING
Learn how to analyze and recognize patterns, learn all about data mining and BI through use of stochastic models.

INTERNET OF THINGS
Learn how to independently develop an IoT product of service. You will learn a lot about selecting the right platform, sensor and microcontroller, the concept of Cloud services, and programming client solutions based on IoT.

SOFTWARE SOLUTIONS ANALYSIS AND DESIGN

You will master the analysis and design of software solutions, learn how to implement IT into systems based on the interoperability of distributed programming solutions, and research complex aspects of computer application security and data encryption.

COMPREHENSIVE UNDERSTANDING
Gain a deeper understanding of analysis and design of software solutions, learn how to implement IT systems and complex computer networks and deep dive into all aspects of software solutions security.

INDEPENDENCE
Adopt and absorb competencies such as accountability and high professional standards, which are required for operating independently at the highest levels possible.

BEST PRACTICE
Learn how to come up with innovative solutions utilizing critical analysis and understanding of contemporary trends and practices.

INDEPENDENT BUSINESS VENTURE
Ultimately, you will learn how to realistically assess a business idea and determine an efficient way to realize and finance it in appropriate business and organizational conditions. Like many of our students, you might already start your own business during the study.

EXAMPLES OF JOBS WE'RE PREPARING YOU FOR

Depending on your field of interest, you will work with databases and mobile or web applications, or you will implement business solutions and develop their architecture.

BUSINESS INFORMATION SYSTEMS PROJECT SPECIALIST
Take part in development of vital information systems that companies heavily rely on.

INTERNET APPLICATION DEVELOPER
Whether it's a specialist for .NET or Java, your skills will definitively fit the job description.

MOBILE APP DEVELOPER
Thousands of new ideas for that perfect mobile app are being developed each day. Be a part of the new Instagram, WhatsApp or Twitter.

DATABASE DESIGN
Expert for databases responsible for all phases of development including design, development and programming.

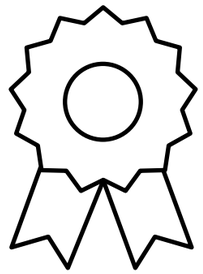
Vedran is currently broadening his knowledge and career in the ABC accelerator in Ljubljana through his project Mogy, a piece of software designed for personal trainers to manage their clients and exercise plans which is currently winning investors.
"Studying at Algebra helped me successfully pass my first major job interview. It lasted two hours, and the employer thoroughly examined my knowledge on web applications and the MSFT .NET framework that I had learned about during the study. This was all possible because of the expertise and openness of Algebra's lecturers throughout the study. A well planned and clear study program helped me carefully plan my activities, study and prepare for the exams."

VEDRAN MANDIĆ, Croatia
Mogy startup co-founder and CTO

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
Innovative Project 1 - Product or services ideation and planning	15	8
Creativity and Critical Thinking	45	3
Programming in Python	45	5
Quantitative Methods and Modeling	60	4
Advanced Application Development Based on Templates	45	5
Elective Courses	**Hours**	**ECTS**
Advanced Mobile Programming	45	5
Embedded Platforms and OS	45	5
Data Engineering	60	5
Cyber Security Defences	60	5
Data Warehousing and Business Intelligence	60	5
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Innovative Project 2 - Product or services development	15	6
Intro to DevOps	45	4
Secure Coding	45	5
Advanced Programming Paradigms	45	5
Elective Courses	**Hours**	**ECTS**
Advanced Information System Interoperability	45	5
Computer Vision Fundamentals	45	5
Structured analytical techniques	60	4
Introduction to machine learning	60	6
Social newtok analysis	60	6
Data Analytics in Cloud Computing	60	4
Sensors and Actuators	45	5
Wireless Computer Networks 1	45	5
Applied Cryptography	60	3
Ethical Hacking	60	7

CERTIFICATIONS available to students within the curriculum:

1. **IT SMF: ITIL Foundation**



First year

LECTURE PLAN
Professional Master Study Programme in Applied Computer Engineering
- **SOFTWARE ENGINEERING**

Second year

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Innovative Project 3 – Go to market Strategies	15	6
Cyber Security Management	60	4
Optimization algorithms based on evolutionary computation	45	5
Rapid Development of Java Applications Using Frameworks	45	5
Elective Courses	**Hours**	**ECTS**
Advanced Client Side Scripting	45	5
Applied DevOps	45	5
Affective computing	60	6
Data visualization techniques and tools	60	4
Big Data Analysis Techniques	60	4
Advanced Machine Learning	60	6
Web Technologies for IoT	45	5
Wireless Computer Networks 2	45	5
Penetration Testing	60	7
Business Continuity and Disaster Recovery	60	3
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Final Thesis	0	30

PROFESSIONAL MASTER STUDY PROGRAMME

Applied Computer Engineering - **SYSTEM ENGINEERING**

STUDY PROGRAMME DURATION:
4 semesters (2 years)

SEMESTER DURATION:
15 weeks of active teaching
+ 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
120

Upon receiving your well deserved diploma, you will be a specialist with a broad knowledge base in system engineering, ready to implement and maintain the most complex computer systems.

WHY STUDY SYSTEM ENGINEERING?

System engineers are the builders of foundations for any modern business. Networking, operating systems, security, and automation are essential parts of any IT system today. Your task as a system engineer is to create and maintain the best IT system for specific business needs. This requires great understanding of the available technologies in the context of business goals, needs of modern business, problem-solving and communication skills. This is the goal we had in mind when we created our study programme. Upon receiving a diploma you will be adept in interpreting customer business needs and understand what is possible to achieve using technologies and resources available while making sure that the project is executed in a timely manner in the most efficient way.

IN-DEMAND OCCUPATION

Did you know that over the past 10 years software engineers are the second most sought-after group of IT professionals in Croatia? Choose a dynamic and interesting career for which demand will grow in the future, booseted by Cloud Computing, and growing focus on IT security.

NUMEROUS BENEFITS

During the study programme you will have the possibility to learn and obtain internationally recognized certificates and you'll also get a Dreamspark Premium subscription to over 160 Microsoft products. Also, you can use our private cloud to work on your study or research projects or our research facilities, accelerator / coworking to setup your business idea and / or startup.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

During your study, you will be learning about how modern IT systems should be designed and built and how to choose the right equipment and technologies that will ensure the most robust, resilient, secure and efficient IT system. Also you will learn how to secure the IT systems by hardening them and using various security solutions like for example next-generation firewalls. Understanding how the business functions is one of the essential parts of being a system engineer so you will learn about that, especially because all of the services that you need to implement and secure are dependent on the business needs and goals.

Of course every business has lots of data to store and keep available and that is why you will learn about storage systems and redundancy, as well as data security and forensic. As you are already aware, things that you are going to do after graduating are very complex and that is why you will learn about automation and scripting, as well as cloud computing.

There will also be opportunities for you to learn about wireless networks, QoS, IP telephony and advanced concepts in service provider networks and one of the most important things you will learn is how to troubleshoot this complex world of IT systems. Besides technology topics you will learn some of the most valuable skills in today's world like critical thinking, problem-solving, managing innovation and entrepreneurship.

Last but not least, depending on your preferences and the career path you choose you will have the opportunity to obtain some of the most valuable certifications in the industry like Fortinet NSE4, CISCP, ITIL, RHCE, MS 70-744 or MS AZ-103.

EXAMPLES OF JOBS WE'RE PREPARING YOU FOR

INFORMATION SECURITY ANALYST
Taking measures to protect company's sensitive and mission-critical data, staying one step ahead of cyber attackers.

CYBER SECURITY CONSULTANT
Assessing software, computer systems and networks for vulnerabilities, then designing and implementing the best security solutions for organization's needs.

INFORMATION TECHNOLOGY CONSULTANT

SYSTEM ENGINEER

COMPUTER FORENSIC ANALYST
- recover lost or manipulated data from the digital environment for private companies or government organizations in context of „cybercrime".

CYBER SECURITY ENGINEER
Working alone or in a team with a goal of designing, developing and implementing secure network solutions to defend against advanced cyberattacks, hacking and persistent threats.

PENETRATION TESTER
(a.k.a. Pen Tester or Ethical Hacker)
Probes for and exploits security vulnerabilities in web-based applications, networks, and systems. Simply put, you get paid to hack legally.

IT SYSTEM ADMINISTRATOR
Responsible for the daily management, upkeep, and configuration of computer systems of an organization or business. This includes installing and managing desktop and laptop computers, servers, networks, IT security systems and other critical components of an organization's IT infrastructure.

IT SYSTEM ENGINEER/ARCHITECT
A systems architect is a technology professional who develops and implements computer systems and networks for an organization and defines the architecture of a system in order to fulfill certain requirements as well. Defining the architecture could mean breaking down the system into components, defining component interactions and interfaces, and/or deciding on the technologies and resources to be used in the design.

Volkan Yilmaz finished his bachelor's degree in Turkey and came to Algebra to do his master's in System Engineering.

"After completing my bachelor's degree in Electronic and Communication Engineering, I chose System Engineering for my master's because I think it is the profession of today and tomorrow. Since I heard that Algebra is a very good choice for studying system engineering, I decided to enroll. During my time at Algebra University College I learned so much and improved myself in many ways. Professors at Algebra are keeping up with current trends in the industry, they are professional, well prepared for the class and always helpful. With the support of professors and colleagues, studying at Algebra is an incredible experience."

VOLKAN YILMAZ, Turkey
System Engineering alumni at Algebra University College

LECTURE PLAN Professional Master Study Programme in Applied Computer Engineering - **SYSTEM ENGINEERING**

First year

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
Innovative Project 1 - Product or services ideation and planning	15	8
Creativity and Critical Thinking	45	3
Programming in Python	45	5
Quantitative Methods and Modeling	60	4
Administering Cloud Solutions	60	5
Elective Courses	**Hours**	**ECTS**
Operating Systems implementation	60	5
Embedded Platforms and OS	45	5
Threat Management and Incident Response	60	5
Cyber Security Defences	60	5
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Innovative Project 2 - Product or services development	15	6
Intro to DevOps	45	4
Implementing High Availability in ICT system	60	5
Advanced automatization and orchestration	60	5
Elective Courses	**Hours**	**ECTS**
Operating Systems integration with Complex Infrastructures	60	5
Computer networks supporting business	30	5
Applied Cryptography	60	3
Ethical Hacking	60	7
Applied Network Security	60	6
Security of Operating Systems	45	4
Sensors and Actuators	45	5
Wireless Computer Networks 1	45	5

Second year

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Innovative Project 3 – Go to market Strategies	15	6
Cyber Security Management	60	4
Troubleshooting in ICT systems	60	4
Advanced DevOps	60	6
Elective Courses	**Hours**	**ECTS**
Computer networks - Project Practicum	30	5
Virtualization_and_cloud	60	5
Penetration Testing	60	7
Business Continuity and Disaster Recovery	60	3
Cloud Security	60	4
Digital Forensics	60	6
Web Technologies for IoT	45	5
Wireless Computer Networks 2	45	5
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Final Thesis	0	30

CERTIFICATIONS available to students within the curriculum:

1. **Fortinet NSE1 – Network Security Associate - The Threat Landscape**
2. **Fortinet NSE2 – Network Security Associate - The Evolution of Cybersecurity**
3. **Fortinet NSE3 – Network Security Associate - Fortinet Products and Solutions**
4. **Fortinet NSE4 – Fortinet Network Security Professional**
5. **RHCE – RedHat Certified Engineer**
6. **MS AZ-500 Microsoft Azure Security Technologies**
7. **MS AZ-303 Microsoft Azure Architect Technologies**

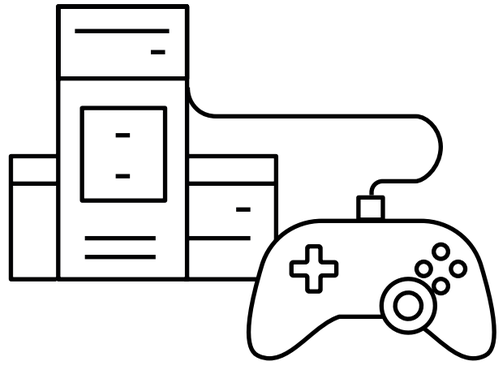
PROFESSIONAL MASTER STUDY PROGRAMME

Applied Computer Engineering - **GAME DEVELOPMENT**

STUDY PROGRAMME DURATION:
4 semesters (2 years)

SEMESTER DURATION:
15 weeks of active teaching
+ 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
120



WHY STUDY GAME DEVELOPMENT?

We know that you want to put your imagination into practice. You just need those extra few skills to turn your ideas into amazing digital adventures.

The games development study programme will give you just that. If you love gaming, but you also find yourself wondering during game play of ways to refine or improve some elements of it, then this is the perfect place for you.

We'll learn how to develop games on all platforms and we'll look at modern and future trends in order to best equip your skill set to be in line and ahead of the development curve. Upon receiving the diploma, you will be on your way to making a real career in game development, whether independently, in a small private studio or one of the giants of the industry.

IN-DEMAND OCCUPATION
Did you know that the computer games industry generates $100 billion annually, which surpasses even the untouchable cinema industry? Choose an interesting and dynamic career where the demand of employers is by far outpacing the supply of candidates.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

This master study programme will transform you into a professional game-developer. You will understand not just the tools and techniques, but also the process of making a video game, from start to finish. We will transfer skills and modern-day knowledge that employers demand. Here is a snapshot of some of them:

DEVELOPMENT OF COMPUTER GAMES
Learn how to look at things holistically. From initial concept and planning to detailed scenario development, game flow and monetization, distribution and licensing issues.

3D MODELS
Learn 3D topology and different modelling and texturing techniques. Create entire scenes and evaluate models and textures and the way they perform in game environment.

PHYSICS APPLIED TO GAMING
Learn how forces of physics are introduced and applied to game environment. VR Learn how games are adapted and designed for VR and augmented reality.

MULTIPLAYER GAMING
Understand everything about the 'hot seat' and local and distant networks and all the way to online worlds supported by the gaming masses.

BEST PRACTICES
Learn how to come up with innovative solutions utilizing critical analysis and understanding of contemporary trends and practices. Think like a Producer, a Director or a Technical Lead.

EXAMPLES OF JOBS WE'RE PREPARING YOU FOR

DEVELOPMENT OF 3D (AND 2D GAMES)
Perhaps you will take part in developing the latest international hit game!

VR AND AUGMENTED REALITY DEVELOPMENT
These techniques have been popular for some time and are being perfected almost daily. Become a creator for the future of interactive media.

GAME DEVELOPMENT BASED ON NARATION
Team work based on interesting, dynamic and very challenging assignments.

NARRATIVE-DRIVEN GAME DEVELOPMENT
Put your team work skills in practice with interesting, dynamic and very challenging assignments.

TECHNICAL DIRECTION FOR GAMES
Making wind, explosions, water or other real-time FX was never easy, but you will master the elements and create inspiring effects that will last forever. Not into explosions? Master the code and content pipelines and become a central character in any team!

MATIJA VIGATO, Croatia
Game development student at Algebra University College

"I fell in love with video games after high school. I believe that the dualities they exhibit: between art and play, intellect and emotions, contemplation and agency, are the dualities we encounter in our everyday lives. In their ideal form, video games could be one of our best teachers of how to live.
In 2021, as a female Game Development student at Algebra University College, I was chosen to be the recipient of the Generation Google Scholarship: for Women in Gaming among other students from Europe, the Middle East and Africa, with 7000 euro of financial support. This is a scholarship given by Google and Google's cloud gaming service Stadia to support students pursuing gaming degrees and to promote gender equality in the video game industry.
I wouldn't be able to receive this award if I wasn't a Game Development student, and the opportunities like these are one of the reasons I encourage people to take a formal education in the fields they love. "

First year

LECTURE PLAN
Professional Master Study Programme in Applied Computer Engineering - **GAME DEVELOPMENT**

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
Innovative Project 1 - Product or services ideation and planning	15	8
Creativity and Critical Thinking	45	3
Computer Game Planning	55	4
Computer Games Development	55	5
Elective Courses	**Hours**	**ECTS**
General Programming Techniques	45	5
Mathematical Foundations of Game Development	45	5
Introduction to 3D Modeling for Computer Games	45	5
Conceptual and Applied 2D Art for Computer Games	45	5
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Innovative Project 2 - Product or services development	15	6
Applied DevOps	45	5
Rational Game and Level Design	45	4
Development of 3D Games	45	5
Elective Courses	**Hours**	**ECTS**
Advanced Computer Games Development	45	5
Development of Multiplayer Games	45	5
Advanced 3D Modeling for Computer Games	45	5
Narrative Design	45	5

CERTIFICATIONS available to students within the curriculum:

1. **IT SMF: ITIL Foundation**
2. **Fortinet NSE4: Fortinet Network Security Professional**
3. **RHCE: RedHat Certified Engineer**
4. **MS AZ-303: Microsoft Azure Architect Technologies**
5. **AZ-500: Microsoft Azure Security Technologies**

Second year

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Innovative Project 3 – Go to market Strategies	15	6
Mobile and Hypercasual Games	45	5
Monetization and Marketing of Computer Games	45	4
Elective Courses	**Hours**	**ECTS**
Application of Virtual and Expanded Reality	45	5
Computer Game Scripting	45	5
Programming with 3D Models	45	5
3D Animation in Computer Games	45	5
Visual Effects in Computer Games	45	5
Developing Computer Game Scenario	45	5
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Final Thesis	0	30

PROFESSIONAL MASTER STUDY PROGRAMME

Applied Computer Engineering - **DATA SCIENCE**

STUDY PROGRAMME DURATION:
4 semesters (2 years)

SEMESTER DURATION:
15 weeks of active teaching + 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
120

Our team of scientists won the Big Data Hackathon organized by Eurostat in 2017.

WHY STUDY DATA SCIENCE?

The Data Science study programme is one of four specialist master professional study programme in the field of applied computer engineering. Together with compulsory programme courses that deal with data analysis, you will be able to choose electives in particular fields that interest you such as data visualization, data engineering, machine learning, statistical analysis, various domain expert knowledge workshops and data product management. Apart from the fundamentals, you will learn how to use those skills to create a “product” based on data (“data driven business”).

Contextualizing based on data, also called “storytelling” is considered to be one of the most important skills today. It is recommended as a universal skill each of us should strive to perfect. Our society is based on stories that form the base for our way of communicating, living and dreaming. Upon receiving the diploma, you will become a true specialist for data science.

This is an inter-disciplinary field, which the industry calls the ‘Fourth Paradigm’ of science. You will learn how to analyze and process large amounts of data and to extrapolate information required for sound business operations.

IN-DEMAND OCCUPATION
Experts for analysis and data processing are highly sought-after in Croatia and abroad. Choose a dynamic and interesting career for which demand will grow in the future.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

Master studies allow you to further perfect your know-how of your favorite field. We’ll transfer the latest industry trends, insights and skills that employers demand. Here is a snapshot of some of them:

EVALUATING COMPLEX PROBLEMS
You will hone your skills in using applied mathematics and information theory for analyzing and evaluating complex and insufficiently defined problems.

WORK AND PLAY WITH DATA
You will learn how to apply appropriate methodology, recommend and select best solutions for queries in data integration, normalization and discretization.

PROTECTING DATA PRIVACY
You will adopt an analytical approach to provisions of ethical codes that protect rights to privacy.

SOCIAL NETWORKS ANALYSIS
Understand what social network analysis is and what its goals are and how to rank the basic functionalities of social network analysis software.

HIGH PERFORMANCE COMPUTING
Understand HPC opportunities as well as how to apply parallel computing to solve business problems.

WORK AND PLAY WITH BIG DATA SETS
Find out how to rate product quality through analyzing big data chunks and re-evaluating its potential.

IMPACT OF ARTIFICIAL INTELLIGENCE DRIVEN TECHNOLOGIES
Learn how to recognize the impact of AI technologies on the business environment and learn to spot new emerging trends.

UNDERSTANDING DATA PRODUCTS
Understand, interpret and scope data products.

EXAMPLES OF JOBS WE’RE PREPARING YOU FOR

DATA ANALYST
A wide array of tasks awaits you, from developing IT support, accessing data from various sources and preparing databases.

SPECIALIST FOR BUSINESS INTELLIGENCE (BI)
You will be implementing analytical and integrated data storage and business decision support systems.

DATA SPECIALIST
A true expert for discovering and extracting knowledge from hidden data and their interpretation and visualization.

DATA ENGINEER
A very dynamic job, depending on the specialization, it can include anything from data preparation and effective data architecture, all the way to its interpretation and sophisticated analysis.

IT PROJECT MANAGER
A responsible position overseeing planning and execution of projects involving implementation of database for analytical systems.

DID YOU KNOW?

Most of the prospective students have limited knowledge in the data science field, so it is difficult for them to follow our programme at the master level of studies. To tackle this issue, before the start of the academic year you can enroll in our online preparation modules such as Python, SQL, Data Preparation and Statistics and get ready for the year ahead. To complete each of the preparation modules, you will need around 20 hours of individual work/studying and 2-3 hours of work for the final project. To complete each module, you will have to pass an online exam in English.

MITx MICROMASTERS® PROGRAM

Algebra University College joined a pathway collaboration with Massachusetts Institute of Technology (MIT) on their MITx MicroMasters® program in Statistics and Data Science. Students who wish to study Data Science at Algebra University College can choose learn and obtain the MITx Certificate – MIT MicroMasters® program in Statistics and Data Science on top of their two-year Master's degree program at Algebra University College.

Students holding a certificate – MITx MicroMasters® program in Statistics and Data Science can apply for recognition of prior learning with the scope of enrolling into a two-year Master's degree program at the Algebra University College. Those students will be exempted of courses already taken at the MIT MicroMasters® program.

Kateryna Lelas is a Data Science student at Algebra University College. After completing her bachelor degree in Business with excellent results, Kateryna moved from Poland to Croatia to do her master's degree. Also, she participated in Algebra's International Winter and Summer School and is the current International Student Representative at Algebra.

"Algebra University College and their new master programme in Data Science gives students with different study backgrounds the opportunity to advance their skills and become professionals in specialized areas of data science according to their preferences. The programme is broad but flexible, so students can try many different applications of data science and then choose one or a few which they plan to implement in their future work. Moreover, Data Science programme emphasizes practical and innovative approach which allows students to try many new techniques, meet the right people and choose the path for the future. Being an international student at Algebra University College, I can most certainly say that I made the right choice."

KATERYNA LELAS, Ukraine
Data Science alumni at
Algebra University College

First year

LECTURE PLAN
Professional Master Study Programme in Applied Computer Engineering - **DATA SCIENCE**

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
Innovative Project 1 - Product or services ideation and planning	15	8
Creativity and Critical Thinking	45	3
Programming in Python	45	5
Quantitative Methods and Modeling	60	4
Data Warehousing and Business Intelligence	60	5
Elective Courses	**Hours**	**ECTS**
Advanced Mobile Programming	45	5
Advanced Application Development Based on Templates	45	5
Data Engineering	60	5
Data Analysis: Statistical Modeling and Computation in Applications	60	5
Machine Learning with Python: from Linear Models to Deep Learning	75	6
Probability - The Science of Uncertainty and Data	60	5
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Innovative Project 2 - Product or services development	15	6
Intro to DevOps	45	4
Social network analysis	60	6
Data Analytics in Cloud Computing	60	4
Elective Courses	**Hours**	**ECTS**
Advanced Information System Interoperability	45	5
Computer Vision Fundamentals	45	5
Structured analytical techniques	60	4
Introduction to machine learning	60	6
Secure Coding	45	5
Advanced Programming Paradigms	45	5
Capstone Exam in Statistics and Data Science	40	8
Data Analysis in Social Science	60	5
Fundamentals of Statistics	75	6

Second year

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Innovative Project 3 – Go to market Strategies	15	6
Cyber Security Management	60	4
Big Data Analysis Techniques	60	4
Advanced Machine Learning	60	6
Elective Courses	**Hours**	**ECTS**
Advanced Client Side Scripting	45	5
Applied DevOps	45	5
Affective computing	60	6
Data visualization techniques and tools	60	4
Optimization algorithms based on evolutionary computation	45	5
Rapid Development of Java Applications Using Frameworks	45	5
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Final Thesis	0	30

CERTIFICATIONS available to students within the curriculum:

1. **Introduction to Programming Using Pythonn**
2. **Tableau Desktop Qualified Associat**
3. **IT SMF – ITIL Foundation**

Joint Master Study Programme in Computer Science - **INTERNET OF THINGS AND ARTIFICIAL INTELLIGENCE**

STUDY PROGRAMME DURATION:
4 semesters (2 years)

SEMESTER DURATION:
15 weeks of active teaching
+ 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
120

WHY STUDY IoT & AI?

The horizontal nature of digital technologies opens up huge potentials on the global labour market. The demand for IoT and AI experts is already big and growing each day - governments are asking for proven solutions, while the industry is looking for profitable ones. This is why we designed a study programme that provides you with project-based learning and real experience right from the start of your master journey.

The joint master study programme in Computer Science – Internet of Things and Artificial Intelligence has been developed by Algebra University College and EPITECH from France. You will spend your first year studying at Algebra in Zagreb, the second year at EPITECH in Paris, and you will receive degrees from both institutions. Our goal is to provide you with the best from both institutions and prepare you to become industry professionals equipped for roles that require state-of-the-art IoT and AI knowledge and practical skills.

This programme is designed for students who wish to work with advanced technological systems related to internet of things and artificial intelligence, such as: home automation, environment, healthcare, smart city, smart agriculture, data-empowered products and services, AI-enabled assistant services and similar.

The prerequisite for enrolment is a bachelor's degree in computer science and/or system engineering and an intermediate level of English, as well as a strong proficiency in programming, knowledge of object-oriented programming and basic knowledge of design patterns.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

Over the course of your studies, you will build skills required for understanding IoT and AI, including data science and full-stack IoT developer roles, from the design and implementation of smart solutions to data analytics and hardware management, as well as communication protocols, cloud-based backend APIs and data/big data storages. You will also acquire broader critical thinking and entrepreneurial skills contextualized to IoT and AI applications.

Our aim is for you to become a professional with highly developed problem-solving skills applicable in the AI and IoT ecosystems. Within this joint study programme, special emphasis is placed on acquiring excellent teamwork skills and learning about modern software development workflows and tools. You will learn about the importance of individual team roles in IT. The curriculum has been developed in accordance with the latest labor market trends to match the requirements of recruiters and recruiting companies. In the final semester, all students will do an internship to perfect the acquired skills and knowledge in the business sector.

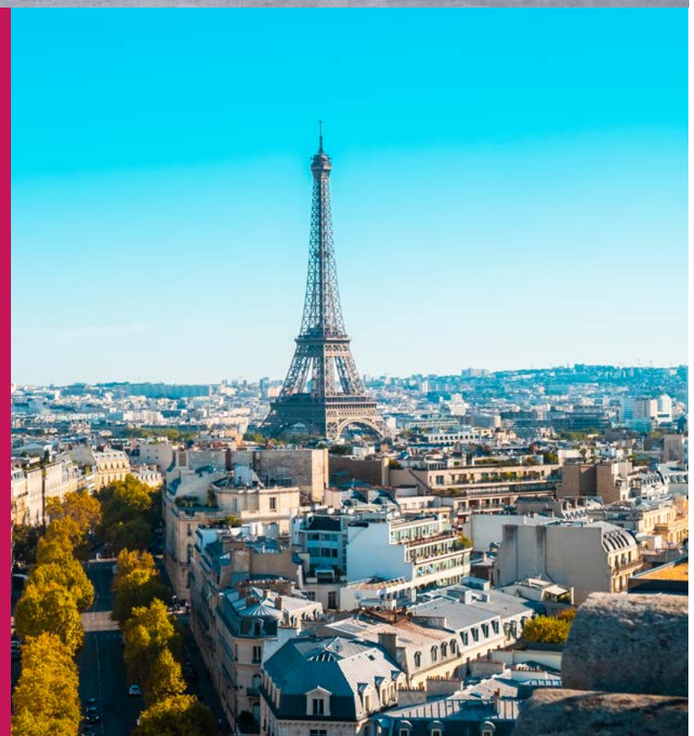
When you master, you will receive a double title: Professional Specialist of Internet of Things and Artificial Intelligence from Algebra and Expert in Information Technology from EPITECH.

EXAMPLES OF JOBS WE'RE PREPARING YOU FOR

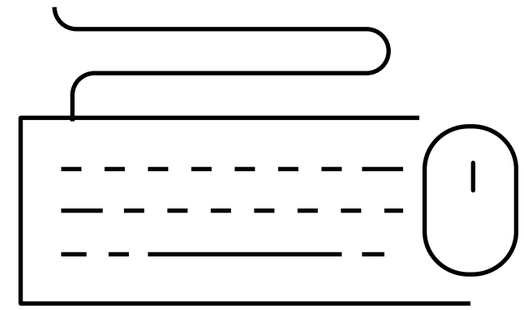
There are many jobs on the global labor market that our study programme prepares students for. Some of these are:

- **SOFTWARE ENGINEER/ARCHITECT FOR IOT APPLICATIONS**
- **WEB DEVELOPMENT ENGINEER FOR IOT**
- **SOFTWARE ENGINEER - JAVASCRIPT / RUBY - INTERNET OF THINGS**
- **SW DEVELOPMENT ENGINEER**
- **CLOUD COMPUTING SPECIALIST**
- **IOT ENGINEERS FOR APPLICATIONS IN (AGRICULTURE, MEDICINE, ELECTRICAL POWER DISTRIBUTION, SMART HOUSING/LIVING, TRANSPORT, WEARABLES, ...)**
- **AI SPECIALIST FOR IOT APPLICATIONS**

The first year of study will be delivered by Algebra University College in Zagreb, Republic of Croatia, while the second year of study will be delivered by EPITECH in Paris (Le Kremlin-Bicêtre), Republic of France. The quality of the study programme is established according to the European Standards and Guidelines for Quality Assurance in the European Higher Education Area and the European Approach for Quality Assurance of Joint Programmes.



FIRST YEAR, SEMESTER 1	
Courses	**ECTS**
Innovative Project 1	7
Data preparation and introduction to data visualization	4
Application of Scripting Languages	5
Quantitative methods and modeling	4
Embedded Platforms and Operating Systems	5
Elective Courses	**ECTS**
Advanced Mobile Programming	5
Advanced Application Development Based on Development Templates	5
FIRST YEAR, SEMESTER 2	
Courses	**ECTS**
Innovative Project 2	8
Machine learning concepts and techniques	4
Sensors and Actuators	5
Wireless Computer Networks 1	4
Elective Courses	**ECTS**
Advanced Information Systems Interoperability	4
Computer Vision Fundamentals	5
Advanced Programming Paradigms	5
Rapid Development of Java Applications Using Programming Frameworks	5



First year
Algebra University College, Croatia

LECTURE PLAN
Joint Master Study Programme in Computer Science - **INTERNET OF THINGS AND ARTIFICIAL INTELLIGENCE**

Second year
EPITECH, France

SECOND YEAR, SEMESTER 3	
Courses	**ECTS**
Innovative Project 3	15
Elective Courses	**ECTS**
Advanced C++	10
Application Development	10
Functional Programming	10
Web Security	4
Progressive Web App	4
DevOps Level 1	2
DevOps Level 2	3
Graphs Algorithm and Matching	3
Advanced Visualization of Massive Data	3
React Native	4
Applied Artificial Intelligence	5
SECOND YEAR, SEMESTER 4	
Courses	**ECTS**
Graduation Thesis	30

PROFESSIONAL MASTER STUDY PROGRAMME

DIGITAL MARKETING

STUDY PROGRAMME DURATION:
4 semesters (2 years)

SEMESTER DURATION:
15 weeks of active teaching
+ 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
120

WHY STUDY DIGITAL MARKETING?

Digital Marketing specialist master professional study programme:

- Gives students ability to think strategically and have broader picture on all aspects of marketing and data driven decision making.
- Teaches students how to use data as the base of all decision making processes with different applications both practically and strategically
- Enables students to think outside the box through critical and design thinking courses. The International Marketing enables them to think outside the boundaries of their country.
- Enables students to make decisions and innovate on products, services and business models with application of disruptive technologies
- Prepares students for more advanced roles in marketing teams and agencies.

IN-DEMAND OCCUPATION
Did you know that specialists for digital marketing are very sought-after in Croatia and abroad? Choose a dynamic and interesting career for which demand will grow in the future.

NUMEROUS BENEFITS
During the study programme you will have the possibility to learn and obtain internationally recognized certificates and you'll also get a Dreamspark Premium subscription to over 160 Microsoft products. Also, you can use our private cloud to work on your study or research projects or our research facilities, accelerator / coworking to setup your business idea and / or startup.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

Master studies allow you to further perfect your know-how of your favorite field. We'll transfer the latest industry trends, insights and skills that employers demand. Here is a snapshot of some of them:

SOCIAL NETWORK ANALYSIS
Learn how to analyze social networks and use social metrics.

DIGITAL MARKETING STRATEGY
Design and implement digital marketing solutions at a strategic level, understanding strategic marketing as a whole.

APPLICATION OF GAME THEORY
Learn how to apply game theory in marketing and business but also your everyday decisions.

BUSINESS ANALYSIS
Hone you interpersonal and business analytical skills in digital marketing.

BUSINESS INTELLIGENCE SYSTEMS
Learn how to develop early warning systems, values for client's current and future budgets, CRMs and recommendation systems.

DATA ANALYSIS
Get into the crux of data analysis such as signals connection, events, monitoring and observation.

EXAMPLES OF JOBS WE'RE PREPARING YOU FOR

SPECIALIST FOR STRATEGIC DIGITAL MARKETING
Be the person responsible for all questions from budget preparation, choice of channel and campaign preparation.

MARKETING STRATEGIST FOR SOCIAL NETWORKING
A wide spectrum of activities awaits you regarding the most important marketing channel, where competition is increasing at breakneck speed.

SPECIALIST FOR SOCIAL NETWORKING ANALYSIS
The balance of success rests on this professional's recommendation regarding digital campaigns on social media.

SPECIALIST FOR DATA VISUALIZATION
You will be working on demonstrating complex data in a smart and applicable way.

SPECIALIST FOR BIG DATA IN MARKETING
This is an expert who contributes to sound business decision making, discovering unknown connection, market trends, customer wishes and those hidden patterns in large data chunks.

MOHAMED HAFEZ, Egypt
Marketing Data Analyst
at SeekandHit

Mohamed Hafez is currently in his final year of Digital Marketing study programme. He moved to Croatia from Egypt for his master's degree and was already an experienced PR, Data analysis and Marketing expert. His previous professional experience encouraged him to specialize in Digital Marketing and get on board with the process of digital transformation.

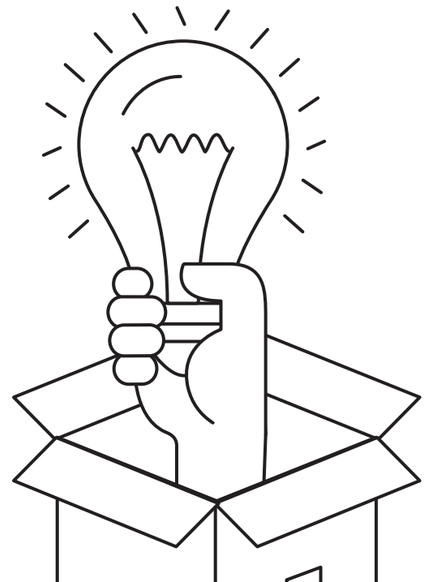
"Since I have a passion for marketing and I chose to build a career in this field, I decided to do my master's degree in digital marketing. We can all relate to the digital transformation around us, nearly in all aspects of our daily life this transformation has an effect on our purchase cycle as customers and how we search, decide, purchase and promote any product or service, so as marketing specialists we need to be aware of these rapid changes. As a marketing specialist I understood the importance of learning how to manage and benefit from big data, and how to be able to design and execute a digital marketing strategy. Studying digital marketing at Algebra had a remarkable effect on my skills and knowledge expansion, the master study programme is very rich and will definitely help you dig deeper into the world of digital marketing."

First year

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
Innovative Project 1 - Product or services ideation and planning	15	8
Behavioural Economics	60	6
Entrepreneurship	60	5
Digital Transformation and Disruptive Business Models	45	5
Innovation Management and New Product Development	60	6
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Innovative Project 2 - Product or services development	15	6
International Marketing	60	5
Application of Game Theory in Marketing	60	4
Management and Leadership	60	5
Customer Experience	60	5
Marketing Data and Metrics	60	5

LECTURE PLAN
Professional Master
Study Programme in
DIGITAL MARKETING

Upon receiving your well-deserved diploma, you will be prepared to work in digital marketing on the strategic and tactical levels – from analyzing social networks to pushing the boundaries of new and existing solutions in digital marketing through research and experiments as well as with use and understanding of data and innovation.



Second year

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Innovative Project 3 – Go to market Strategies	15	6
Principles of Sales and Negotiation	60	4
Strategic Marketing	60	6
Brand Management in the Digital Era	60	6
Elective Courses	**Hours**	**ECTS**
CRM and Marketing Automation	60	4
Alternative marketing tools and processes	60	4
Analytical Software Tools in Digital Marketing	60	4
Creativity and Critical Thinking	60	4
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Final Thesis	0	22
Elective Courses	**Hours**	**ECTS**
Network Analysis and Social CRM	60	4
Artificial Intelligence in Marketing	60	4
Visualization Software Tools	60	4
Design Thinking	60	4

PROFESSIONAL MASTER STUDY PROGRAMME

CREATIVE MARKET COMMUNICATIONS MANAGEMENT

STUDY PROGRAMME DURATION:
4 semesters (2 years)

SEMESTER DURATION:
15 weeks of active teaching
+ 4 examination weeks

TOTAL NUMBER OF ECTS POINTS:
120

WHY STUDY CREATIVE MARKET COMMUNICATIONS MANAGEMENT?

We live in a time inspired by technology which presents us with new challenges and requires new ways of dealing with increasingly complex problems. Of course, these challenges need to be understood and adopted on a daily basis. specialist master professional study programme creative market communications management prepares you exactly for this kind of situations. The knowledge you will acquire will help you become a part of a digitally transformed world, where only constant commitment to innovation ensures success.

Managing teams composed of a wide variety of experts and managing your own business are just some of the skills you will learn and adopt in this study programme. Today, technology is a requirement for business success, but technology is nothing without the people who understand and develop it. We want to show you the importance of technology in today's business environment, but also teach you how to manage people who use this technology. In addition, you will gain insight how to understand and communicate with those who need to become fond of the products and services managed by yourself in order to buy them and remain faithful to them.

Our task is to show you how to start, manage, evaluate and finalize the most demanding projects across a wide variety of industries. We believe that, at the end of the study programme, you will be able to manage marketing campaigns and make important business decisions.

WHAT ARE THE TAKEAWAYS FROM THIS STUDY PROGRAMME?

The two-year Creative Market Communications Management study programme course will introduce you to knowledge and skills necessary for success in the increasingly complex world of design and marketing communications. Many people think they know how to communicate, but a few know how to communicate successfully and – effectively. Our study programme will prepare you for a career of a successful and efficient designer; a member or a leader of creative teams in advertising or in any other industry.
The study programme is designed through the interaction of the latest artistic, social and technological knowledge. We believe that only such a broad and comparative approach can be the basis for a successful career in the world of design and market communications.

INTEGRATED MARKETING COMMUNICATION AND MARKET TRENDS
Mastering integrated marketing communication and its managing processes. Complete understanding of all elements of the marketing mix and their correlation. Understanding changes and trends in international socio-economic relations, ability of synergy adjustments and finding optimal communication solutions.

IDEA MANAGEMENT IN MARKET COMMUNICATIONS
Understanding the processes of generating a "big idea" – a complex creative tool that through the interaction of emotional and rational stimuli provokes the potential consumer and leads to a moment of enthusiasm for a particular service or product. Communication platforms are the initiator and support of every successful brand.

CREATIVE METHODS AND TECHNIQUES IN MARKET COMMUNICATIONS
Creativity and design that are not effective are not commercially useful. The expectations of the client/customer of a particular design should be recognized and interpreted. The balance between market expectations and creative processes is a precondition for successful communication. Through this course you will learn how to be creative and "yourself" in demanding, market-conditioned and unpredictable circumstances.

CONSUMER BEHAVIOR
Learn how to understand the behavior of consumers in increasingly complex conditions

of the fourth industrial revolution. The usual consumer segmentation and “persona” recognition is no longer good enough today. The consumer can be found in the most unexpected places, in the digital space that runs out of control, changes and goes through everyday transformations. The “things to be done” concept as a way of understanding consumer behavior is increasingly replaced by traditional demographic bases for market segmentation.

BRANDING – CORPORATE IDENTITY
Understanding the brand and its significance is one of the crucial conditions for survival in the market game which is strongly linked to design. By acquiring knowledge about creating relationships between products and consumers, we gain insight into human desires, needs, motives, expectations, perceptions and rational and irrational impulses that condition our experience of a particular brand.

PROCESS MANAGEMENT IN MARKET COMMUNICATIONS
Learn about the importance of managing the processes of designing and creating market communications as well as about the problems and necessities of an organized, procedural way of organizing work. Consider thoroughly the analytical, procedural model of optimization and documentation of business processes.

ADVANCED PRESENTATION SKILLS
Presentation skills are often a crucial tool for the success of a project. Many ideas would never have become successful projects without the knowledge of presentation techniques and without a good command of professional terminology.

BUSINESS ETHICS IN MARKET COMMUNICATIONS
Adopt the knowledge of fundamental concepts in the field of ethics, especially in the context of the business world. Learn to differentiate the conceptual categories of ethics, morals, descriptive ethics, casuistry and business ethics. In short, learn how to do business the right way!

EXAMPLES OF JOBS WE’RE PREPARING YOU FOR

CREATIVE DIRECTOR
The creative director’s position is indispensable in advertising, media, publishing and every other industry that requires visual design of creative concepts. Creative director is a key person in creating integral marketing campaigns, equally skilled in dealing with textual and visual content.

MARKETING DIRECTOR
An exceptionally responsible position in which you need to know how to develop a marketing strategy, including various economic indicators; from competitive analysis to detailed budget development and planning. Your decisions will have far-reaching consequences for products and services managed by yourself and beyond them – you are creating consumer trends and affecting the purchasing habits of a large number of people.

CLIENT SERVICE DIRECTOR
Client relationships are often a crucial element for the success of a company, as well as for the success of any project, service, idea or product. The person who oversees and manages relationships with clients must possess both negotiating and marketing skills in addition to highly developed organizational abilities. An analytical mind and understanding of human interactions are essential for success in this business.

STRATEGIC PLANNER
Expert for databases responsible for all phases of development including design, development and programming.

ELIZABETH BORYSIUK,
Ukraine
Design & Communications Management student at Algebra University College

Elizabeth Borysiuk is a 1st year student of Design & Communications Management. After finishing her bachelor degree in International Tourism in Poland and working in marketing, Elizabeth decided to move to Croatia and explore her creativity at Algebra. She participated in Algebra’s International Summer School where she excelled at improving her art and technology skills through the Digital Sculpting Fundamentals course

“This study programme has given me a great chance to work among some of the biggest hot shots in our industry. Their expertise gave me knowledge and tools needed to better set up my personal and professional objectives. All this has shown me that our own creativity needs to be organized so we could be even more successful and competitive in our highly demanding working environment.“

FIRST YEAR, SEMESTER 1		
Courses	**Hours**	**ECTS**
Innovative Project 1 - Product or services ideation and planning	15	8
Presentation design elements	45	4
Integrated Marketing Communications	60	5
Idea Management	60	5
Creative Processes Management	45	4
Elective Courses	**Hours**	**ECTS**
Multiculturalism and Identity	45	4
Leadership	45	4
FIRST YEAR, SEMESTER 2		
Courses	**Hours**	**ECTS**
Innovative Project 2 - Product or services development	15	6
Creative Methods and Techniques	45	4
Visual Storytelling	45	4
Creative Economy	45	4
Digital Consumer behavior	45	4
Branding 1 - Corporate and Personal Identity	45	4
Elective Courses	**Hours**	**ECTS**
Ideation in Photography	45	4
Business Ethics	45	4

CERTIFICATIONS available to students within the curriculum:

1. **Adobe Certified Associate - Photoshop**
2. **Adobe Certified Associate - Illustrator**

First year

LECTURE PLAN
Professional Master Study Programme in **CREATIVE MARKET COMMUNICATIONS MANAGEMENT**

Second year

SECOND YEAR, SEMESTER 3		
Courses	**Hours**	**ECTS**
Innovative Project 3 – Go to market Strategies	15	6
Branding 2 - Product Identity	45	4
Psychology of user experience design	45	4
Visual Interactive Media	45	4
Design Research and Methodology	45	4
Aesthetics and Design Theory	45	4
Elective Courses	**Hours**	**ECTS**
Ideation in Film and Video	45	4
Interpretation and Management of Cultural Heritage	45	4
SECOND YEAR, SEMESTER 4		
Courses	**Hours**	**ECTS**
Final Thesis	0	20
Project Management in Creative Industries	60	5
Sustainable Development Design	60	5

PROFESSIONAL MASTER STUDY PROGRAMME

e-Leadership MBA

The programme is carried out in cooperation with faculty members from the Kelley School of Business, Indiana University, USA, one of the oldest and most renowned, constantly top-ranked international business schools.
In partnership with the faculty of Algebra University College, they combine the strengths and experiences in executive education with one working at the frontiers of business and management.
Many bring with them professional expertise, obtained on the job or through consulting engagements with industry.

STUDY PROGRAMME DURATION:
18 modules (2 years)

MODULES DURATION:
40 lecturers’ led contact hours + 20 hours of pre-reading and case studies each

TOTAL NUMBER OF ECTS POINTS:
120

WHY STUDY E-LEADERSHIP MBA?

In a technology dominated world, the lack of e-leadership education is striking. Algebra is among the top higher-education institutions in Europe that have developed and accredited an e-Leadership MBA programme.

In a nutshell, e-Leadership MBA programme curriculum is made in BDS design (business + digital + strategic) and structured around three main standard MBA content competencies: most of the core business MBA (GMP), several of the core technology MBA (ICT) and some key strategic Executive MBA (Leadership) modules. It’s meant to provide the best breed of MBA experience (traditional & advanced technology & strategy oriented e-Leadership).

The two-year e-Leadership MBA programme consists of 18 (17 + 1 Introductory) modules exercised in the duration of 40 lecturers’ led contact hours + 20 hours of pre-reading and case studies each. Students have to deliver a start-up business project in the first year and an individual Master’s Thesis at the end of the programme.

The two year programme worth 120 ECTS actually acts as a framework in contemporary business management, digital technology, social media, business intelligence, design thinking and modern leadership, thus following the key EU e-Leadership Initiative recommendations.

Unlike similar traditional MBA programmes which attempt to compensate for their lack of connection with technology-based modern business models through one or two modules, this programme connects the business and technological aspect in all its elements. Specifically:

‘CLASSIC’ MBA MODULES like Financial Management or Marketing and Sales Management, use examples and practical cases based on new business models and paradigms. Modern technology is used in class as the foundation for solving business problems (real time computer simulations, digital tools and applications, software...).

TECHNOLOGY-ORIENTED MODULES, like Digital Transformation, Strategic Management of Technology and Innovation or IT Systems in Modern Organizations, are focused on strategic perspective and most useful application of technological solutions in any business or industry.

BUSINESS PLAN DEVELOPMENT is exercised in small teams throughout the programme, but the most important one is a real-life start-up project. After a yearlong analysis and evaluation of a team’s business idea, its market opportunity and potential, the project ends with a pitch in front of the actual investors. It often goes on through the collaboration between MBA students and industry partners to develop a prototype (MVP) or real market start-up solution. An additional benefit of this approach is strong networking which facilitates synergy between MBA, computer engineering and digital marketing students. The result is an impressive and very influential alumni community positioned “strategically” in modern and fast growing companies we can be proud of.

MODULES
INTRODUCTION TO e-LEADERSHIP
MANAGERIAL ECONOMICS
STRATEGIC MANAGEMENT
OPERATIONS MANAGEMENT
FINANCIAL MANAGEMENT
CREATIVITY AND PROBLEM SOLVING
MARKETING AND SALES MANAGEMENT
FINANCIAL AND MANAGERIAL ACCOUNTING
QUANTITATIVE METHODS
PROJECT MANAGEMENT
ENTREPRENEURSHIP AND INNOVATION
STRATEGIC MANAGEMENT OF TECHNOLOGY AND INNOVATION
DIGITAL TRANSFORMATION
INFORMATION SYSTEMS IN MODERN ORGANIZATIONS
INTERNATIONAL LAW, CYBERSECURITY AND PRIVACY
BUSINESS COMMUNICATION AND NEGOTIATION
MANAGING AND LEADING PEOPLE
NEW PRODUCTS MANAGEMENT
START-UP BUSINESS PROJECT (team assignment through DESIGN THINKING)
MASTER'S THESIS

18 modules

MBA PROGRAMME
Professional
Master study
programme
e-Leadership MBA

2 years

Academic
degree

120 ECTS

Accredited
study
programme

60 hours
per module

BUSINESS TRANSFORMATION AND INNOVATION IN DIGITAL ECONOMICS

e-Leadership MBA programme - Strategic Leadership, Digital and Business Savvy

STRATEGIC LEADERSHIP:
- Forecasting needs for information
- Understanding customer needs
- Solution orientation
- Communication
- Creativity
- Independent learning
- Team leading
- Cultures, internationalization

DIGITAL SAVVY:
- Big data analytics & tools
- Cloud computing & virtualization
- Mobile app design and development
- Complex business systems
- Web development & tools
- IT architecture, platform architecture
- Security skills
- ERP systems
- Social media

BUSINESS SAVVY:
- Customer relations & sales
- Partnership establishment
- Business development
- Organizational change
- Project management
- Process optimization
- Strategic marketing
- Agile methodology
- Business analytics
- Market analysis
- Financial skills

ADMISSION PROCEDURE FOR INTERNATIONAL STUDENTS

Following the global trends in higher education, we have established the International Office with the aim of introducing the many advantages of studying in Croatia to future students. The staff at the International Office will be happy to help prospective students from the moment they start thinking about studying at Algebra. It will serve them as the main point of information and support throughout the entire enrollment process. All students will be in touch with the International Office until the start of the academic year. After that, all further support will be taken over by the Student Office.

In order to apply to our study programmes, learn more about the admission procedures in a few steps.

PROFESSIONAL BACHELOR STUDY PROGRAMME

DURATION OF STUDY PROGRAMME: 3 years
LANGUAGE: English or Croatian
ECTS points: 180
PREREQUISITES: 12 years education (finished high-school)

STEP 1

Apply online and submit documents
www.algebra.hr/visoko-uciliste/en/admissions/apply/

Documents required

- Certificate of citizenship (passport, ID)
- 2 passport size photos
- Educational certificates' copies in English
  - The last certificate obtained in the original (or certified copy)
  - Certified translation of the certificate to the English language issued by a certified court interpreter, with the exception of the documents issued in the English language
  - Copies of certificates for each grade completed in high school
- Proof of English language proficiency: IELTS minimum band score 6.0, or equivalent
- CV in English
- Arts portfolio (only students interested to enroll in Arts programmes)
- Proof of payment of 255 EUR administrative fee (non-refundable)

STEP 2

Take the entrance exam & interview

An online interview will be conducted with candidates in order to determine their motivation. The entrance exam will be held online, once every month from January – May, and twice in July and September. Candidates for study programmes in Applied Computer Engineering and Digital Marketing will take an entrance exam in Mathematics and English language. Candidates for study programmes in Arts will take an entrance exam in Drawing and Visual Communications Design and English language. Upon successful completion of the interview and entrance exam, candidates will receive a conditional Offer Letter as a confirmation of acceptance to the study programme.

PROFESSIONAL MASTER STUDY PROGRAMME

DURATION OF STUDY PROGRAMME: 2 years
LANGUAGE: English
ECTS points: 120
PREREQUISITES: Bachelor's degree with minimum of 180 ECTS (at least a 3-year programme)

STEP 1

Apply online and submit documents
www.algebra.hr/visoko-uciliste/en/admissions/apply/

Documents required

- Certificate of citizenship (passport, ID)
- 2 passport size photos
- Educational certificates' copies in English:
  - complete, original Transcript of records
  - Degree Certificate/Diploma,
  - Diploma Supplement for the finished bachelor study programme before enrolment
- Proof of English language proficiency: IELTS minimum band score 6.5, or equivalent
- CV in English
- Arts portfolio (only students interested to enroll in Arts programmes)
- Proof of payment of 255 EUR administrative fee (non-refundable)

STEP 2

Take the interview

An online interview will be conducted with the candidate in order to determine his/her motivation and English proficiency, as well as eligibility to join a particular study programme.

On successful completion of the interview, the candidate will receive a conditional Offer Letter as a confirmation of acceptance to the study programme.

STEP 3

Make tuition fee payment

The tuition fee is payable in Croatian kuna (HRK). An invoice for the tuition fee will be sent separately after acceptance of the offer letter.
70% of the tuition fee should be paid in advance and it can be paid in EUR. On reception of this payment, the university will issue the Acceptance Letter which is required to apply for the visa. Once the visa is approved, the remaining 30% of the tuition fee should be paid before the candidate joins the programme.

STEP 4

Entering the country and VISA

Visa and Temporary residence permit

Check if you need a Visa to enter Croatia by contacting the nearest Croatian Embassy/ Consulate or on the website www.doyouneedvisa.com. EU citizens do not require a Visa to enter Croatia. Learn more on the following link: https://mvep.gov.hr/services-for-citizens/consular-information-22802/visas-22807/visa-requirements-overview-22879/22879.

All students have to apply for an approval of temporary stay. Learn more on the following link: https://mup.gov.hr/aliens-281621/stay-and-work/temporary-stay-of-third-country-nationals/281661.

Visa refusal & refund policy

In case the visa is denied for some reason, Algebra University College will return the payment after charging 5% of administrative costs. Refusal documents must be sent to Algebra University College within 14 days to get the refund. Postage costs are also incurred by applicants.

Please note:

1. You will receive an official Acceptance Letter from the Algebra University College with important information. You are expected to arrive on time and commence the studies according to the instructions.
2. As a future student, you are responsible for acquiring a student visa/residence permit for Croatia well in advance and to collect documents required for future visa applications. Contact the appropriate embassy in order to receive further information about the Visa application procedure and start processing the Visa immediately after receiving the Acceptance Letter. Let us know if we can assist you in any way.
3. All international students are required to have health and/or travel insurance from their home country prior to their arrival in Croatia. This type of insurance has to be valid in case any health services are needed while staying in Croatia. For students coming from EU countries their EU health insurance card is valid under the stated terms & conditions. Any questions and support the students may need prior to arriving and during their stay can be directed to the International Office of Algebra University College.
4. At the end of the study period, a degree will be issued by the Algebra University College to students who have successfully met all requirements by the study programme.

For more information, please contact the International Office
Phone: 00 385 1 5809 397; 00 385 1 5809 313
Email: international-office@algebra.university

Our campus

The new campus covers almost 12.500 square meters and has 35 lecture rooms named after many Croatian and world innovators and scientists such as Nikola Tesla, Steve Jobs, Ivan Lupis, Faust Vrančić, Ruđer Bošković, Slavoljub Penkala, Ivan Vučetić, and the recently deceased emeritus professor Slavko Krajcar, the first rector of Algebra University.

In addition to the newly equipped lecture rooms, which consist of almost 700 computers, laser projectors and equipment for live streaming of the lectures, the teaching process takes place in 14 separate online cabinets for distance learning and training.

To ensure creativity in design teaching, Algebra has a modern Art Studio and a 3D production room with 3D printers for larger formats. Our Video and Audio Studios, as well as the Podcast Room, are readily available to Multimedia and Digital Marketing students to further hone their production and post-production skills. Our unique Innovation Centre is open to all students during university working hours as a maker space for collaborative work.

NIMBUS
Data center
Podatkovni centar

By moving to a new location, the Zagreb Campus has gained a significantly larger international test centre where students, trainees and professionals have the opportunity to obtain various certificates such as Microsoft, AWS, Google, PMI, TOEFL and others. Within the new university campus, there is a coworking space for 35 people and a library that offers 18.500 books, which covers 120% of the need for books in relation to the number of enrolled students.

3D and VR Equipment

3D printers, VR equipment and a laboratory that is mainly used by students of Multimedia and Game Development.

Nimbus Private Cloud

Highly available Nimbus private cloud with numerous physical servers, data warehouses, firewalls, UPS, etc.

Firewalls and Network Equipment

Second-generation Firewalls and other wired and wireless network equipment are available to our System Engineering students.

VISIT US AND DISCOVER WHY ALGEBRA IS THE BEST CHOICE FOR YOU.

The new campus has implemented excellent Internet connectivity, which ensures a stable connection for 1.200 devices simultaneously at the speed of 10Gbps. One of the most interesting things is certainly the data centre called “Nimbus”, which enables the launch of 4.000 virtual machines for students and teachers.

Algebra’s data centre has 1.62 THz of CPU power, 5TB of memory and about 40TB of disk space, and consists of 80 physical servers. The “Boston Super Server SMC 1029GQ-TRT” supercomputer is installed as a part of the server infrastructure and it is mostly used at the Data Science study programme. The server room is equipped with a 60 kVA UPS and a NOVEC fire extinguishing system.

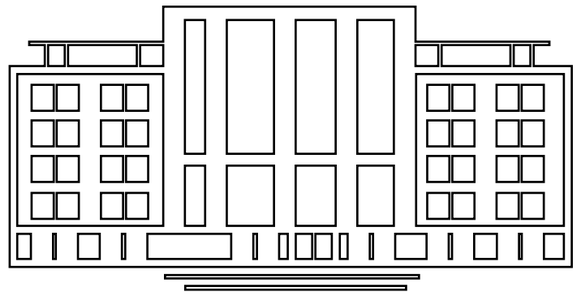


Photo and Video Equipment

Our students can use various photo and video equipment for classes and their project work.

Computer Labs

20 computer labs and classrooms with different types of equipment and software used and prepared specifically for different courses.

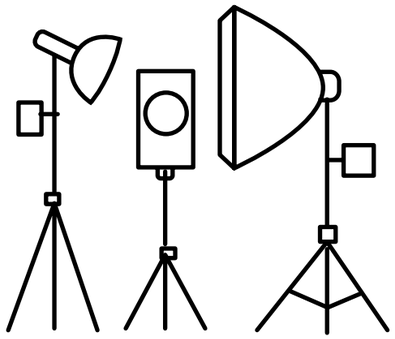
The new campus is equipped with a spare generator for potential power outage incidents which ensures uninterrupted operation of critical infrastructure, business and student information systems, as well as teaching and data storage. Algebra campus was built in the A+ energy class. Air recuperation was introduced in all teaching rooms, which increases the quality of teaching and achieves green energy savings. The floors of the office buildings are made of recycled materials, and in order to further encourage “green access”, employees are additionally encouraged to come to work by bicycle or scooter.

Audio / Video Studio

Professional Audio/ Video Studio used for regular teaching within study programmes.

Network lab

Complete network laboratory with numerous network routers and switches.



IoT and Robotics

Space for Internet of Things and robotics equipped with various equipment (robots, IoT devices for Smart City Smart Home applications - some of which are laboratory, and others are built and functioning within the Campus).

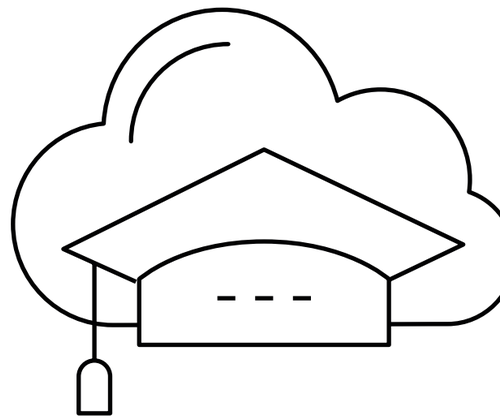
About us

Algebra University College is the flagship of the largest private educational organization in the Republic of Croatia and the region, and present in more than 20 cities across Croatia.
Founded in 1998, we currently have more than 170 full-time employees and more than 400 associated experts. Annually, we educate around 15.000 students through various seminars and short educational programs in lifelong learning, while in higher education we enroll more than 550 new students each year.

Our main campus is located in the heart of Zagreb, the capital of Croatia, while lifelong learning and training programmes are also conducted in: Osijek, Pula, Rijeka, Zadar, Split, Šibenik and Varaždin, as well as in more than ten other smaller cities. We currently provide almost a thousand shorter education programmes (in duration of up to 2 weeks), 50 accredited lifelong learning programmes and 12 accredited higher education study programmes. Many of our programmes are authorized by world software and equipment manufacturers such as: Microsoft, Cisco, Oracle, Red Hat, VMware, Adobe, Autodesk, EC-Council, IMC2 and others. We are an academic and/or educational partner of all the stated vendors, for most of them the only one in Croatia.
Majority of educational programmes for the acquisition of new qualifications, as well as all study programmes in higher education, are accredited by Ministry of Science and Education and are thus linked to the European Qualifications Framework (EQF) through our National Qualifications Framework. In addition, we are also dedicated to applied research:

Thus, the Algebra LAB provides research, services and solutions in areas of:

- Data science
- Application of information technology in education including: digital educational content, distance learning systems and assessment systems
- Evidence based labor market and educational policy research and development



Mission

We are creating opportunities for Croatian and international students to acquire excellent skills and knowledge and build globally competitive careers in areas in which we provide study and training programmes. We are aware of our responsibility within the community and we therefore actively promote educational excellence in order to encourage economic growth and development of Croatian economy.

In our teaching and research, we strive to create value system coherent to values in which we strongly believe:

1. ADDED VALUE TO THE EDUCATION OF OUR STUDENTS AND PARTICIPANTS
2. TOP QUALITY EDUCATION
3. OPERATIONAL AND ORGANIZATIONAL EXCELLENCE
4. DIRECT CONTRIBUTION TO THE DEVELOPMENT OF OUR SOCIETY

Vision

We aim to become the first choice for Croatian and international students interested in building careers in areas in which we provide study and training programmes through development of excellence in all segments of our work: staff, infrastructure, applied research, cooperation with the industry and internationalization.

What makes us different

We hope this publication will help you recognize three specific features worth considering when deciding on your future career path and choosing the best higher education institution.

1 First of all, our students acquire the necessary knowledge for fast growing industries based on digital technologies. This gives them a head start and enables them to choose a career for which the demand will increase significantly in the future. Even though there are still jobs and careers in the “old” economy, we are convinced that the path towards the digital era and the “new” economy is the right path that will, in the long term, provide students with a platform for personal development and high employability. Perhaps this is best illustrated by the fact that 96%* of students start working within three months after graduation.

2 Our second competitive advantage is continuous monitoring of technological developments, as well as the real needs of employers, which results in academic programme improvements. Recognizing the advancements in education worldwide, we were the first institution in Croatia to apply modern qualification framework approach in design of our programmes and have developed the implementation methodology for it. It is precisely this methodology that has become a part of the official guidelines which will be applied by other Croatian institutions during the following years in accordance with the more diverse needs of employers and technological developments.

3 Finally, our third specific feature is the orientation towards true quality. Our overall approach to education and our quality has been recognized within Croatia by our national higher education regulatory agency (Agency for Science and Higher Education) where we are ranked 1st among all Universities of Applied Sciences in respect to quality assurance, as well as in respect to the quality of the overall educational process. We are the only Croatian higher education institution that has been awarded “Meets the Quality Requirements of NVAO” certificate by Dutch Flemish accreditation agency NVAO.

1 ESG najbolje ocijenjeni sustav kvalitete u RH

nvao meets the quality requirements of NVAO

Microsoft Partner
2014 Partner of the Year Winner
Learning

agencija za znanost i visoko obrazovanje

Our awards

Ranked 1st according to Croatian Agency for Science and Higher Education among all Universities of Applied Sciences in Republic of Croatia in respect to Quality Assurance system.

Ranked 1st according to Croatian Agency for Science and Higher Education among all Universities of Applied Sciences in Republic of Croatia in respect to overall quality of institution.

15%

The fastest growing! A 15% average annual growth in the number of students enrolled in our bachelor study programmes.

The only Croatian higher education institution awarded “Meets the Quality Requirements of NVAO” certificate.

12.500m²

12.500m² of space on our new campus.

96%

96% of our masters find employment three months after graduation.

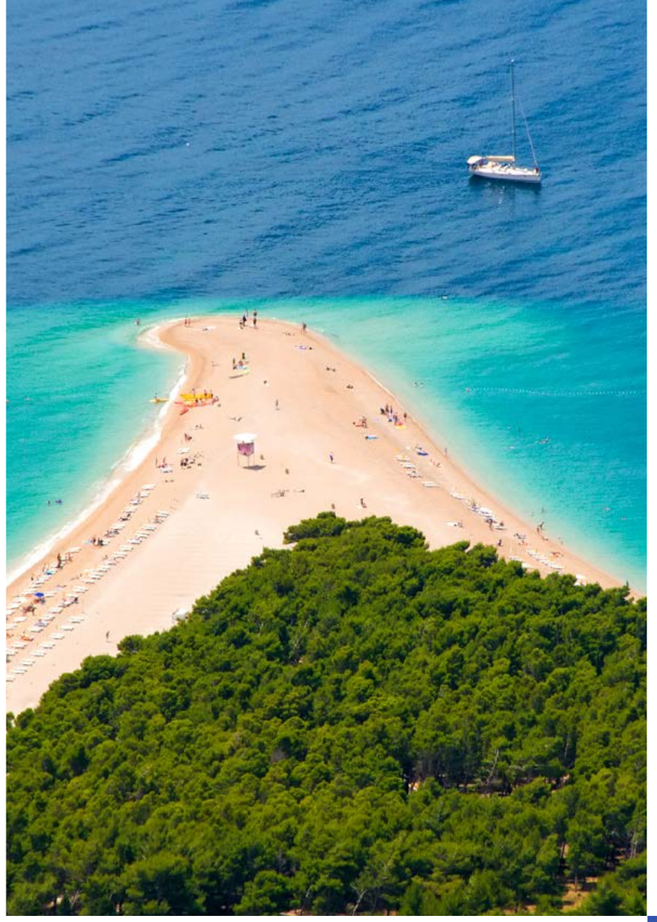
YOUR LIVE AND LEARN DESTINATION

Croatia

Welcome to Croatia, one of the European richest countries in terms of biodiversity which continues to attract tourists, digital nomads and international students due to its spectacular nature, relaxed lifestyle and career opportunities in the digital industries.

Member of the European Union, Croatia is considered to be one of the safest countries in the world according to The Global Peace Index 2021 produced by the Institute for Economics and Peace (IEP). The multi-lingual and hospitable environment makes everyday life and communication easy and makes adjusting to new surroundings that much simpler. A recent survey by Landgeist places Croatia as the second safest country in Europe (after it's neighbour Slovenia) for how does one feel safe walking alone on the streets at night.

Croatia is one of the sunniest spots in Europe and one of the **safest countries in the world**!



Best known for its beautiful Adriatic Sea coastline, sunny islands and world-renowned athletes, Croatia is a land of innovators like Nikola Tesla, Ruđer Bošković and home to inventions which transformed human existence, several of which are used in everyday life, such as: alternating electrical current, electrical transformers, power lines, parachute, ball-point pen (Penkala pen), tie. Croatian landscape is recognized by Hollywood as well: Game of Thrones, Star Wars, Mama Mia, Captain America and many other cinematic marvels were shot in Croatia.

As a study destination, Croatia follows the Bologna Process and offer students bachelor, master and postmaster opportunities across the country. The long educational tradition derives from public universities offering university studies focusing on the academics and science, while the private university sector as Algebra mostly offers professional studies which equip students with applicable knowledge and skills sought after the relevant industry labour market.

Zagreb

The countries capital accounts to one fourth of the countries entire population while maintaining a "small big" city vibe which offers the coziness of smaller towns and advantages of European capitals. With its excellent public transport network, exploring Zagreb is an easy task.

The city of science and culture is the home to more than fifty museums and galleries as well as private art collections and about twenty theatres and music venues. Zagreb is a vibrant multi-cultural city no matter the season: in the summer, you can enjoy outdoor activities and events as picnics, sports, rooftop parties, open cinemas and festivals while the winter brings a genuine Christmas atmosphere with its traditional Advent season: Christmas markets offer plenty of fun, traditional and authentic Croatian dishes, unique events and art.

Today, Zagreb is a university city with forty higher educations institutions and a student population which accounts for 1/10 of the city's population while its history of education dates back to the middle of 14th century with its first city (primary) school leading to the 16th century which brought the first secondary school and the first university was established.

Quality of higher education, a never-ending bucket list of things to do, student budget friendly and affordability makes Zagreb a dream student destination. Oh, did we mention that the closest beaches are a two-hour drive from Zagreb?

Zagreb, one of the oldest European cities, is not only the administrative but also economic, diplomatic and cultural capital of Croatia, with a population of almost one million.

Accommodation and food

Average monthly living expenses in Croatia are estimated between 400 and 600 EUR, depending on the type of accommodation (student dorm or privately rented housing) and the city of residence in Croatia. **These amounts should be sufficient to cover food, accommodation, utilities, transportation and other expenses.**

The student ID card (“X-ica”) is used as a proof for exercising student rights and benefits such as subsidized meals in cafeterias, discounts on public transportation, discounts in certain public institutions and more. Subsidized food for Erasmus+ students is available in public student restaurants, where you can have 3 good quality and quantity meals per day. International students in Croatia receive a student card during the first month of their mobility period.

A student dormitory at our campus will be built in the near future. Until that time, the staff of Algebra University College assist students with finding private accommodation in the organization of our accommodation provider, Home In Zagreb agency. Students can also receive helpful links to other rental agencies that offer long and short-term apartment rentals. If students want to stay in a hostel, we can recommend modern & urban designed hostels, located in the heart of Zagreb (near our campus) which would cost around 250-500€/per month, depending on the season. Prices of private accommodation in Zagreb may vary depending on the city area, size and amenities that apartments include. Algebra University College staff will be happy to assist students in finding accommodation.

CROATIAN CUISINE

Croatian cuisine is known as a cuisine of the regions, since every region of Croatia has its own distinct culinary tradition. The main dishes vary depending on the area you visit. In Dalmatia, the coastal area, on the islands and in Istria, the cuisine is Mediterranean and dishes are based on fish and other seafood, seasoned with olive oil and Mediterranean herbs and spices, while typical meat dishes include ‘pašticada’ (a stewed beef dish) and cooked lamb. Mainland cuisine is more characterized by the earlier Slavic and the more recent contacts with Hungarian and Turkish cuisine.
Among the most popular local dishes and specialties are the renowned Dalmatian or Istrian prosciuttos, cheeses from the island of Pag and the Lika region, sheep’s cheese, Slavonian ‘kulen’ (a spicy cured pork meat specialty), the renowned zagorski štrukli of Zagreb and Zagorje region, fresh cottage cheese with cream, and more.

Student office

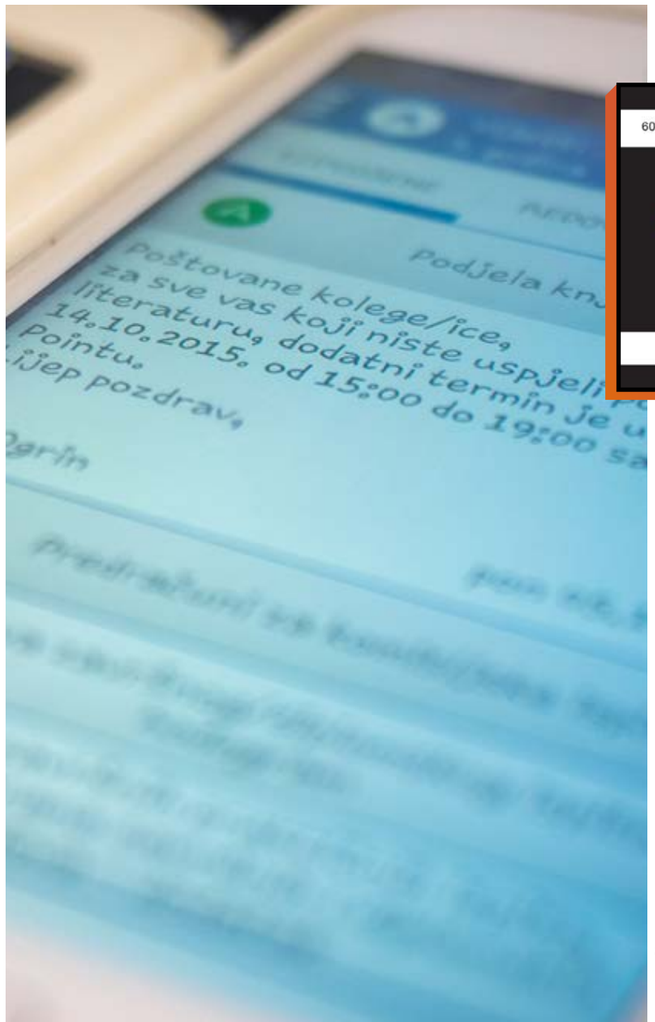
You will make your first contact with Algebra University College through the International Office. Once your study programme starts, you will receive support from the Student Office. Located at the eastern entrance of our main building, the staff will help you from the moment you start studying until you obtain your diploma. The Student Office organizes and provides information on administrative study requirements and other student commitments, issues certificates of student status, transcripts, monitors tuition fee payments, and more.

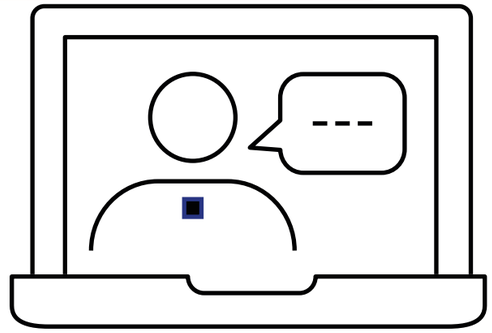
In addition to administrative business, the Student Office is at your disposal for support and advice throughout your studies, so you can efficiently fulfill all your study commitments.

INFOEDUKA – DIGITAL STUDENT SERVICE

Our digital student administration system is also available to you 24/7 and offers additional information and services for students. Infoeduka is a unique student support system designed for simple access to personal information in order to easily apply for exams, to see your class schedule, study programme calendar, exam dates, your grades and paper results, to enroll into a semester or a year, to download class materials, and to access online services such as forums and webmail.

It is a responsive system that works on all major platforms and resolutions, and it is also available as a free mobile application on Apple iOS and Android devices.



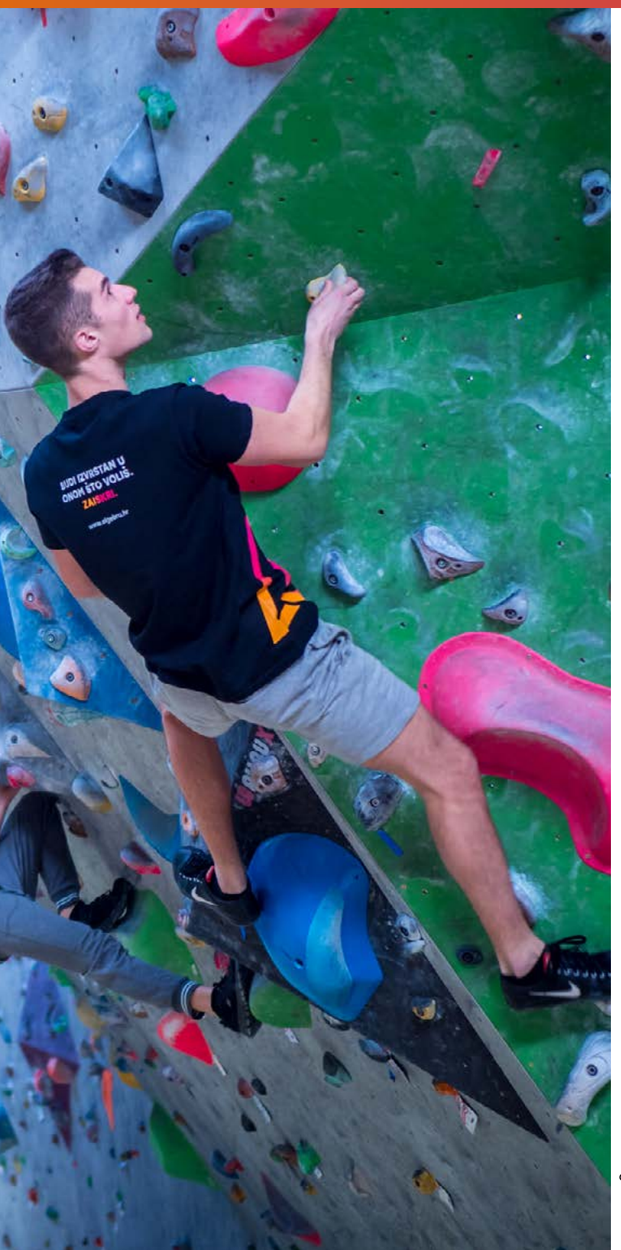


Student Office

T **00 385 1 5089 368**
E **student@algebra.hr**

Sport

It is common knowledge and a scientifically proven fact that the lack of physical activity endangers human health. Insufficient physical activity and reduced stimulus to the locomotor system negatively reflect the normal functioning of all organs. Physical inactivity is the fourth leading factor in mortality in the world, while physically active persons have a significantly reduced risk of illness from various diseases*.



Algebra University College organizes sports games, skiing and active excursions for all our students with the purpose of socializing, entertaining and improving the quality of life of its students.

We invest a lot of effort in the quality of life and health of our students. One of our most important goals in recent years has been the introduction of Physical Education as a mandatory course in year one for all our bachelor programmes. The most important objectives of the course are:

- Creating a habit of a healthy lifestyle with the aim of preserving and improving one's health,
- Meeting the basic human needs for movement, play and socialization,
- Acquiring positive attitude and habits of sport and regular exercise,
- Student training for independent and lifelong physical exercise.

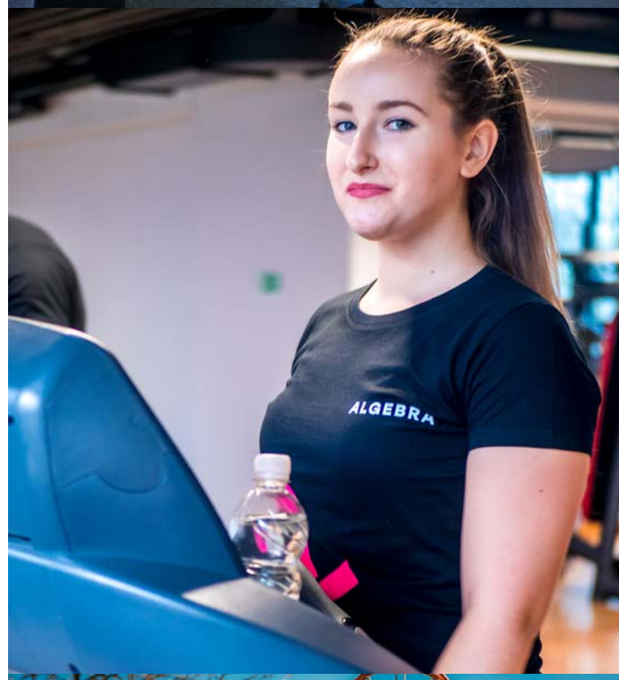
*World Health Organization, 2017.

Other than the programmed exercise in Physical Education classes, our students can join the organized sports sections and participate in the Zagreb University Sports Federation competitions. For all of them, there is an additional training period, as well as expert guidance and supervision, in order to be optimally prepared for the competitions.

To improve the quality and attractiveness of our study to a higher level, we organize and support the departure of our students to international university competitions such as: Elektrijada, Tehnologijada, University Games etc. Competitions in sports and scientific disciplines, give our students opportunities to make valuable contacts, exchange experiences with students from other faculties and universities, and have fun.

Head of Algebra Sports is responsible for organizing, implementing and controlling our sport recreational activities.

Tin Petračić
Head of Algebra Sports
P **00 385 1 2222 180**
E **sport.algebra@algebra.hr**



ACADEMIC PARTNERS / INITIATIVES

We are members of the most renowned academic IT initiatives, providing additional value to our students and proving quality of our work and commitment to excellence.

Microsoft Developer Network Academic Alliance (MSDN AA)

We have become involved with this programme in order to improve and simplify studying for our students. It offers numerous advantages through DreamSpark, such as free official studying materials and latest software solutions.

Microsoft Imagine Academy

Microsoft Imagine Academy is a global IT educational programme designed to help schools to ensure the success of its students and teachers. Access to the latest resources in education through Microsoft technologies makes it easy for teachers to prepare students for the labor market with an ever-increasing demand for Microsoft technologies.

CISCO Networking Academy

Cisco Networking Academy is an innovative global initiative that provides students with knowledge and skills in the field of information and communication technologies. It has been launched and supported by Cisco Systems.

IBM Academic Initiative

Within this programme both our students and staff get access to advanced software and IBM development platforms as well as to all educational materials offered by IBM.

Oracle Academic Initiative

We have joined the programme in its advanced version “Advanced Computer Science” in order to provide our students with access to the latest Oracle software, and also to implement a part of our curriculum through the use of official Oracle teaching materials specifically developed for academic instructions.

EMC² Academic Alliance

Through this partnership, our students receive the opportunity to introduce themselves to new trends in the field of information infrastructure development, especially in areas such as Big Data, Cloud Computing, Information and Storage Management and virtualization using EMC teaching materials.

Croatian Academic and Research Network – CARNET

IT solutions and services - IDE3

Red Hat Academy

Red Hat® Academy turns academic institutions into centers for enterprise-ready talent by outfitting them with Red Hat Training. This comes in the form of hands-on instruction, curriculum, labs, performance-based testing, and instructor support.

Tableau Academic Programme

Our Data Science and Digital marketing students and teachers are enabled to use Tableau Desktop for free.

VMware Academic Program (WMAP)

WMware Academic Program (VMAP) is a comprehensive software licensing programme designed specifically for the global higher education community. The VMware Academic Programme supports the use of virtualization applications in teaching and research. The programme provides both desktop and infrastructure software for personal use, whether as part of STEM classes, in research projects, or for gaining hands-on experience with VMware products.

Fortinet Network Security Academy (FNSA)

Red Hat® Academy turns academic institutions into centers for enterprise-ready talent by outfitting them with Red Hat Training. This comes in the form of hands-on instruction, curriculum, labs, performance-based testing, and instructor support.

Palo Alto Authorized Academy Centers

Palo Alto Networks Academy is a collaborative programme between Palo Alto Networks and academic partners who implement next generation technologies in their studies and courses, making it available to students. The programme allows students and professors to access Palo Alto technologies which enables the partners to prepare their students for exciting careers in rapidly advancing fields such as Cloud Computing or network and computer security.

SAP University Alliances

Participation in the SAP programme enables our students to work with cutting edge SAP technologies – SAP CRM and SAP Hybrids eCommerce.

HubSpot Academy

Algebra University College has a standing partnership with HubSpot Academy. Our students use HubSpot methodologies and tools on several courses and have access to a large database of educational materials as well as the HubSpot certification programme.

RBA - Raiffeisenbank Croatia

Tehnozavod Marušić d.o.o. - From idea to solution

Association for the Promotion and Development of Education Servus

INDUSTRY COOPERATION

Nataša Trojak works as Vice Dean for Students and Lecturer for courses in Business Economics. She has more than 15 years of experience working in different Croatian and international companies, while the last 12 years of her career have been dedicated to education. She has a Master's degree in Economy and holds a PhD in Psychology.

Dear students,

We are glad that you are considering the possibility of continuing a part of your education at Algebra University College. Education is an important part of our lives, it opens up possibilities and opportunities for personal and professional development, which is why your decision about education is very important.

Algebra University College is dedicated to the quality of education, and our goal is to enable young people to acquire knowledge and skills that will help them in the successful development of their careers. That is why our classes are taught by experts who combine scientific and professional aspects and many of them have rich business experience. In addition to the necessary theoretical background, they convey to the students the practical aspects of the learned content. Teaching is realized through a large number of practical and project-based tasks that make it easier for students to start working in the real sector. There are often guest lectures by speakers from the industry who share valuable knowledge and experience with students. In addition to classes, students also have at their disposal elective courses, additional classes in more demanding subjects, teacher consultations and space for joint learning. Knowledge is a lasting value that you will take away with you from Algebra.

During their studies, the students can also use the services of the Student Office and Career Center. The Student Office is a place where students can get all the information relevant to their studies, and the Career Center provides connections with employers and offers career counseling. At the Career Center, students can get support in organizing their internship, which is mandatory for all our studies. Along with practical classes and guest lectures, this is another opportunity to connect with employers.

However, friendships that are sometimes made for life are also important while studying. That is why we organize events for students such as the Welcome Day, Freshman Party, conference and similar events, where they have the opportunity to meet their colleagues from other study programs and connect with each other. Sometimes interesting business ventures or joint collaborations arise from such friendships. With the Buddy Program, organized by our International Office, and the possibility of gaining international experience, your studies acquire another important dimension.

Join the big Algebra family and be part of a network of people who create knowledge, contacts and friendships for the future!

Nataša Trojak
PhD, senior lecturer
Vice Dean for Students

P **00 385 1 2222 159**
E **natasa.trojak@racunarstvo.hr**

Economic Council

Algebra Economic Council is our link with the business and academic community that makes sure we appropriately understand and address the requirements of the labor market and the entire ecosystem. **Algebra University College is committed to work hand in hand with all other stakeholders in favor of economic and social prosperity.**

The Economic Council consists of a number of reputable individuals from the industry, public institutions, local authorities, academic communities and professional associations.The Council gathers on a regular basis to discuss most important policy and market topics, helping us to determine the strategic direction of our educational programmes and institutional development. Chairperson of the Council is Professor Mario Kovač, PhD, from the Faculty of Electrical Engineering and Computing, University of Zagreb. The Economic Council consists of a number of reputable individuals from the industry, public institutions, local authorities, academic communities and professional associations. The Council gathers on a regular basis to discuss most important policy and market topics, helping us to determine the strategic direction of our educational programmes and institutional development. Chairperson of the Council is Professor Mario Kovač, PhD, from the Faculty of Electrical Engineering and Computing, University of Zagreb.

With such a strong collaboration link, we gain industry and society relevance and ensure that classes we teach provide necessary knowledge and skills required by the labor market. The Economic Council also helps us reflect upon the development of our programmes, continuously improve quality, and raise standards in education.

Since there is a shortage of skilled IT professionals, very often our industry partners, represented through the Economic Council, offer and provide our students not only with diverse forms of internship and apprenticeship programmes, but also with scholarships and employment opportunities.

In addition, with the support of the Economic Council we get access to industry leading experts, either from local partner companies or international corporations, who willingly team up with our resident faculty members, provide visiting lectures and specialized workshops, and lead collaboration and research projects.

Check out the members of our Economic Council and learn more:
www.algebra.hr/visoko-uciliste/en/aboutus/economic-council/

A WORD FROM OUR PARTNERS

PLAMENKO BARIŠIĆ,
CEO of KING ICT

"Our current experience with employment of Algebra students is excellent. Everything they stated during the employment phase related to their knowledge and skills they quickly demonstrated in practice, which is rare nowadays."

ZORAN ŠIMUNIĆ, PhD
Senior Executive Officer
Privredna banka Zagreb

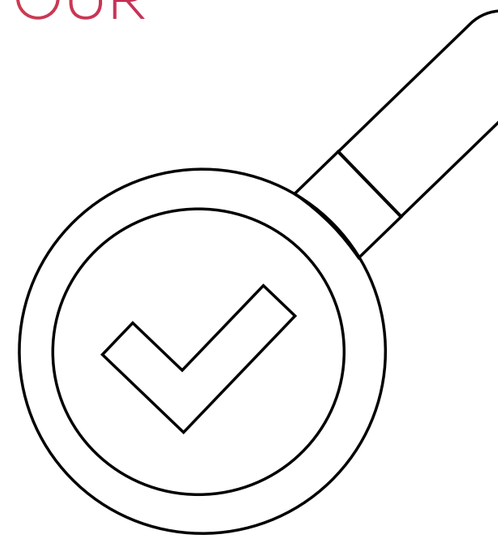
"The most crucial part is bringing our students, potential employees in business processes before and after graduation. In doing so, we provide them with additional specific knowledge in areas where they will work later, and this model has proven to be mutually beneficial."

Assistant Professor,
DARKO HULJENIĆ, PhD
Manager for Technological and Scientific Activities - Ericsson Nikola Tesla

"A number of collaborative programmes, involving various forms of practical work, help students gain valuable experience in the technology sector during their studies by working on concrete projects. What is particularly important for students who have completed their studies at Algebra University College is that after graduation they already have valuable industrial certificates."

COMPANIES WHICH EDUCATE THEIR EMPLOYEES AT OUR INSTITUTION

Cooperation with leading companies is completely bidirectional. On one hand, it provides our students with the chance of getting hired by one of these companies, while on the other the companies educate their specialists / employees in one of our programmes.



Algebra LAB

Algebra LAB is an interdisciplinary community whose ambition is to utilize the best that digital technology has to offer, in order to boost human innovation. Ours is a proven track record of accelerating technological transfer from science labs and classrooms into the sphere of business and social value.

Algebra LAB is an open innovation lab – a meeting place for all the key elements needed for successful innovations, a place where applied research, entrepreneurial education and mentors come together. They form a network of professional contacts, top experts of different profiles (from artists to scientists, business professionals and engineers), thus forming a close-knit web for knowledge dissemination and a unique shared space that supports continuous flow and exchange of ideas.

Our competencies, proven expertise and experience, serve the transformation of scientific research and digital technologies into business opportunities. Algebra LAB experts combine sector expertise, technological competence and top-level business practices to create new and effective business solutions for different challenges of the digital age.
We offer attractive educational modules and incubation programmes for entrepreneurs and start-up projects, research & development opportunities for investors, as well as for the private and public sector. As such, Algebra LAB is an ideal partner for all constituents of public and private sector, who are interested in innovative approaches to developing products, services and business processes. As such, in 2018 we have been listed by the European Commission as a fully operational Digital Innovation Hub on their Smart Specialisation Platform.

In 2018 Algebra LAB incorporated the Zagreb entrepreneurship incubator (ZIP) together with their network of mentors and upgraded the incubator programme. At Algebra LAB we have incubated the 11th generation of young entrepreneurs, while in total over 70 startups have emerged from our programme. We present you with a small fraction of our teams and their business ideas, many of whom are Algebra's own students.

FLOORNAP – web platform for cheap accommodation opportunities

SMARTWAITER – digital platform for placing orders in restaurants and cafes

SMARTSTOP – IoT solution for public transportation

JAYONE – digital platform for all users of Summer Work and Travel Programme (J-1)

KIDCOIN – web platform for children's savings in virtual currency

By supporting our students in developing their high-tech ideas into marketable products, and giving them the necessary toolset of skills and capabilities to set up an actual business, we strive to demonstrate to the wider business community that all necessary elements of a successful business ecosystem can indeed be found in one place – at Algebra LAB. We annually organize around 100 events (conferences and meetups) aimed at startup communities and anyone interested in the Croatian and regional innovation ecosystems.
We are particularly proud of our achievements in the field of data science. Our researchers' expertise includes a wide range of methods, technology and projects related to data science and data economy. In this area our researchers implemented numerous business projects including churn management models, customer lifetime management models, cost allocation and management systems, advanced visualization and data science/big data architecture services. Areas/industries of expertise include labor market analysis, VET implementation, NSI support (dissemination databases, advanced visualization and data monetization scenarios), while clients range from domestic to international, from SMEs to corporations, including governments and government institutions.
We are very active and successful in applying for the EU-funded projects. The following is the list of our successful project applications in the last two years.

1 KNOWING IPR (INTERREG DANUBE TRANSNATIONAL PROGRAMME)

The project aims to improve framework conditions for innovation in the Danube region by developing a transnational KnowING IPR platform, which will provide an open access tool for advanced intellectual property rights analysis and guidelines for improved and harmonized IPR policy framework across the Danube region.

2 ATRIUM OF KNOWLEDGE

The aim of the project is to enhance the research, development and innovation capacities of our project partner, University of Karlovac, in the area of food technologies.

3 ACADEMY ON THE WALK

The aim of the project is to enhance entrepreneurship potential of students of our project-partner, The Academy of Visual Arts. The secondary aim of the project is to create a digital archive that will become a data base for all students and stakeholders in the sector of creative industries in Croatia.

4 NEW ENTREPRENEURSHIP INCUBATOR

The goal of the project is to develop new mentorship possibilities for startups and SMEs. Focus is on SMEs active in devising software and engineering solutions. We connect them with corporations, to give them an opportunity of testing their business solutions, as well as with students, who bring in fresh perspectives.

5 APPLIED DATA SCIENCE EDUCATIONAL ECOSYSTEM (ADSEE) – ERASMUS+

The main objective of the project is to deliver a new educational and training programme in data science (DS) through development of educational modules, adaption of contents and methods according to envisaged needs of the target groups, creation of interactive didactic tools and production of guidelines and recommendations on innovative education approaches in DS. Special attention will be paid to data science in non-technical universities.

6 DIGITAL INNOVATION HUB FOR CLOUD BASED SERVICES – ERASMUS+

The goal of this project is to develop a European-wide, transnational, interconnected development service model and network based on cloud and mobile technologies (4G/5G). There will be five digital innovation hubs created for cloud based services on different locations in Europe. These hubs will be learning and development environments to VET students as well as development service environment for companies to renew their future views, the knowhow, skills and the digital service creation.

GO GLOBAL

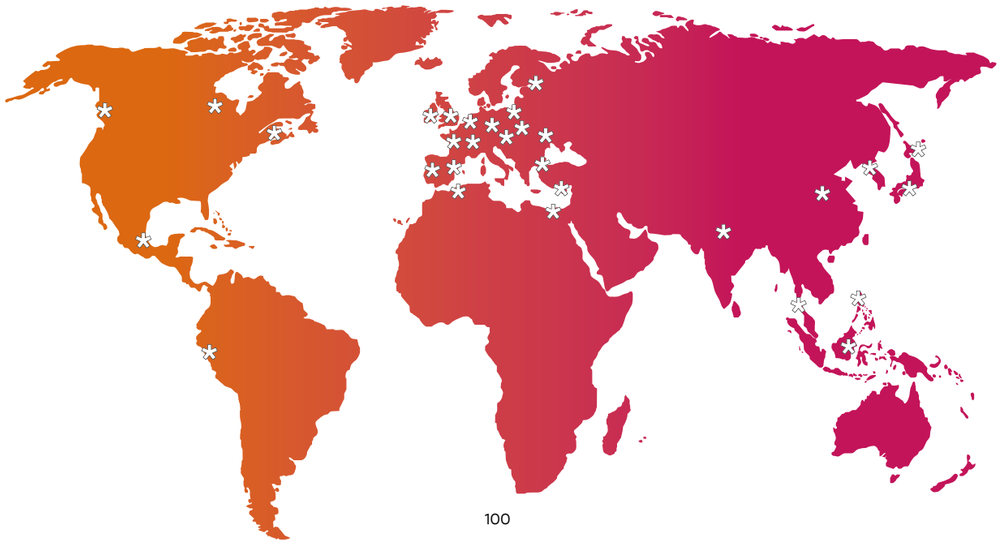
International Office

In order to provide our students with the highest quality education and encourage progress in the wider community, we continuously develop and support international possibilities for students, teaching and non-teaching staff, as well as international students and professionals who share our values and our vision.

The International Office promotes and supports active participation of students and staff in European and global initiatives through joint development projects in the field of economy and education. Additionally, the International Office organizes academic mobility for students, teaching and non-teaching staff as well as supports traineeships abroad.

We believe that through international cooperation, the exchange of knowledge and experience with leading global institutions, as well as continuous growth and improvement of our internal capacities and additional investments in necessary resources, we can build an internationally recognized educational institution that will set the blueprint for Croatian economic competitiveness on the European and global market.

Algebra Buddy Program is a project that aims to assign incoming international students with their buddies – **local students willing to help them settle into their new home during their first semester at Algebra.** Buddies can help international students explore Zagreb, reveal tips and tricks about studying at Algebra, and above all, have fun while hanging together. The International Office staff meets with Buddies on a regular basis and connects new students with their Buddies, and also supports their activities.



Erasmus+

Algebra University College is the holder of the Erasmus Charter for Higher Education. Erasmus + is the program of the European Union for Education, Training, Youth, and Sports for the period 2021-2027 which, among other things, financially supports the mobility of students, teachers, researchers, and other non-academic staff.

Erasmus+ provides students with the possibility of a study visit or traineeship at European (and many non-European) host institutions. Algebra University College has signed Erasmus agreements with more than 100 higher educational institutions where our students can stay, including the oldest and largest universities across Europe, and has prepared additional financial benefits for students who decide to study abroad to experience studying at a foreign university.

Besides universities with whom we cooperate through the Erasmus+ program, we currently cooperate with more than 40 overseas universities in parts of the world not currently covered by Erasmus. Due to the agreements, all our students (including international) could also benefit from student exchange programs or work placement in some of our overseas university partners or with overseas employers.

We hold the **Erasmus Charter for Higher Education for the period 2021-2027.**

What Erasmus+ Students Say About Their Experience

WHAT MOTIVATED YOU TO PARTICIPATE IN THE ERASMUS+ MOBILITY PROGRAMME?

Nikoleta: I was motivated to return to Croatia for the second time because I loved my first Erasmus+ experience here and I wanted more of it.

Barnabas: I got to live and study abroad in my chosen country. Get to know that country, its culture, history, and language, and meet new people from around the world. I even get an Erasmus grant to experience all of this? Come on!

WHAT IS IT LIKE TO LIVE ON YOUR OWN IN A FOREIGN COUNTRY? WHAT DO YOU LIKE ABOUT STUDYING AT ALGEBRA?

Barnabas: This is my first time living abroad and living without my parents. I moved out of my comfort zone, and I became more independent. Professors at Algebra are experienced, fresh, active, friendly, and always open for discussion.

Classrooms are easy to find, the up-to-date schedule is always at the entrance, and everything is clean.

Markus: It's my first time abroad in a long time. At first, it was hard to find everything but after a few days, I felt right at home. All professors are very practical and since they are also working in the field, they are up to date with the latest trends and technology.

Nikoleta: It's my second time in the first foreign country I lived in thanks to student exchange. I could write a whole book about it! My language skills have improved tremendously, the friendships that I have built will last, the food I tried was super-delicious and I found many similarities to my country here. I loved it so much the first time I decided to come back again for my Master's degree. :)

WHAT KIND OF SUPPORT DURING YOUR MOBILITY PERIOD DID YOU RECEIVE FROM THE STAFF AT ALGEBRA?

Markus: The International Office helped me greatly by providing all the documents necessary for state funding, and with other questions in general.

Nikoleta: Every single kind I needed and I asked for! The staff is amazing – from the polite cleaning staff to the international office coordinators, professors, and assistants with great understanding and passion, to everyone else I met.

MARKUS

I made a lot of friends from all over the world, I met Croatian people and learned a lot about Zagreb and all the other beautiful places in Croatia. I feel more prepared when interacting with and understanding people from other countries and dealing with new environments.

WHAT ARE THE BENEFITS OF TAKING PART IN THE ERASMUS+ MOBILITY PROGRAMME?

Baraa: Making friends for life, from various backgrounds and cultures and having the time of your life. It has widened my horizons and made me change my mind about higher education in a way.

Nikoleta: Learning about the history of the country, languages, being closer to entrepreneurial spirit, witnessing innovations that are surrounding Croatian people, learning from lifestyles they have, the hospitality they offer, and having the opportunity to learn more about yourself and others. I would say it taught me important lessons and gave me keys to doors that I can knock on anytime.

Barnabas: It made me more independent and confident. I made friends from different countries and it seems like we will visit each other. I learned more about Java programming, networking, 3D modeling, and video editing. And got to know Zagreb and Croatia.

WHAT ADVICE WOULD YOU GIVE TO STUDENTS WHO WANT TO TAKE PART IN THE ERASMUS+ MOBILITY PROGRAMME?

Baraa: DO IT.

Markus: Always be open to new people and new places. The world is like a book, if you only stay in one place, you will only read one page.

Nikoleta: Be open to everything, socialize and enjoy most of your time, ask questions, enjoy food but exercise as well, be polite, and be informed. Prepare yourself mentally and remind yourself why you are away from home and what your goals are.

Barnabas: Look for ESN and visit their events. Consider buying a bicycle. Google all information about the place you are going to. Don't spend all your money in the first month.

DID ERASMUS+ AT ALGEBRA MEET YOUR EXPECTATIONS?

Markus: Yes, it exceeded my expectations.

Nikoleta: I would say it even exceeded them in some aspects.

Baraa: And more.

Barnabas: I would recommend it to everybody.

INTERNATIONAL STUDY TRIPS

Learning does not end in the classroom, it merely begins there. We design student study trips to stimulate all the senses with a mix of learning, attractions, activities, plus unique and tailor-made experiences. In a climate in which youth are susceptible to confusing and sometimes misleading information, a quality international experience provides the grounding and perspective that can help develop thoughtful young global citizens.

Each year we take a fancy trip abroad. So far, we've stolen gold from the leprechauns in Dublin, visited Amazon and LinkedIn headquarters, attended start-up

The ultimate immersive experience to learn, discover and grow!

competition at the Trinity College, missed the Oktoberfest in Munich by a second, observed start-ups...well, start-up characteristics in Silicon Valley and put the stay in What Happens in Vegas, Stays in Vegas. Legendary Harvard, Stanford, Berkeley, and MIT universities, as well as IBM Watson research center, are just some of the locations our students could cross from their bucket lists. A unique chance to experience newest trends firsthand, listen to the lectures of world-renowned experts and return home armed with new knowledge and skills. We also visited many interesting Japanese institutions such as Sony Computer Science Laboratories, Miraikan – National Museum of Emerging Science and Innovation, Shibaura Institute of Technology, Corporate Showroom Panasonic Center and Toyota Production Plant.

Seriously, though, once each year you will have an opportunity to spend some time abroad and visit the best universities, development centers and companies.

ABC BOOTCAMPS

World of Innovation and Entrepreneurship

Summer is, after all, meant for having new amazing experiences, meeting people and exploring different locations and we believe that it is possible to combine all the amazing above-mentioned summer activities with education, which is actually the best thing to do to stay in touch with the latest world trends and modern, young, and aspiring people. Algebra University College is giving the students and young entrepreneurs an opportunity to expand their horizons, discover new destinations, acquire practical knowledge and skills and learn from top companies in the world! ABC BootCamps offers an unforgettable experience, people, and places while providing top education about business. This makes our summer programs more successful in teaching business than most traditional business schools.

The programs are organized in different world's most famous locations such as Silicon Valley, Toronto, Dubai, Amsterdam... which give diverse perspectives of different ecosystems and business models.

Besides learning and gaining new skills, all the participants have organized one-day trips to iconic parts of our amazing destinations to experience the vibrant cultures and breathtaking views of different locations.

ABC BootCamps takes traditional professional learning to the next level by incorporating networking events, business competitions, corporate visits, and excursions. We favor practical instead of theoretical knowledge so the mentors and professors base their interactive lectures on real business world experience.

And to award the participants for enjoying the summer full of learning, networking and gaining an understanding of the modern business world, every participant earns 4 ECTS points and a Certificate of Completion upon successfully finishing the program which is an excellent way to complement their resume.

If you would like to become a part of this amazing summer experience, check out webpage and #ElevateYourCareer!

ALGEBRA INTERNATIONAL SCHOOL

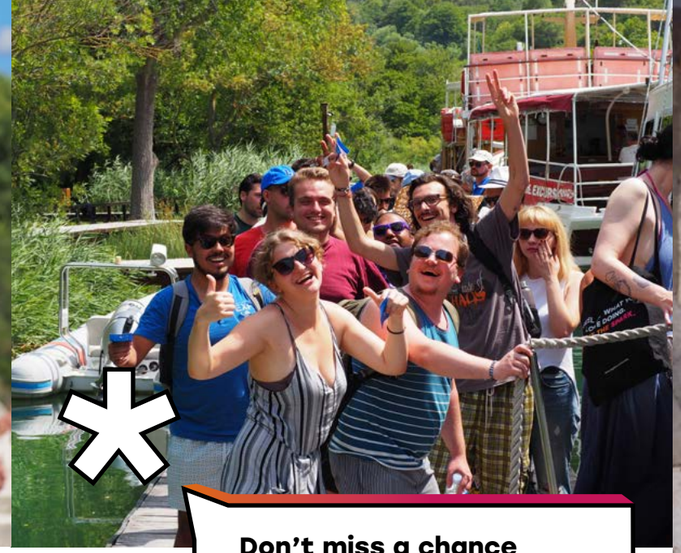
Algebra University College launched its International Winter and Summer School programmes in 2017 and the global recognition of our quality and unique experience has been growing ever since!

The aim of the International School programmes is to host students from all over the world who will treasure lifelong memories from their time spent in Zagreb and the rest of Croatia through learning, socializing and participating in fun and cultural activities. We are proud to say that Algebra International School has so far been recognized by students from different countries, such as: Mexico, United States, Canada, Australia, New Zealand, Philippines, Brazil, UK, Morocco, South Africa, Indonesia, South Korea, Hong Kong, China and many others.

We have carefully designed and continue to upgrade our cherry-picked courses from the area of Computer Science, Economy and Arts so that students can master the latest trends in digital technologies. In addition to choosing the main course, international students have the opportunity to attend the Croatian Language and Culture course to learn the basics of the Croatian language and find out more about Croatian history.

Our International School programmes are organized to offer our students an excellent balance of work & play. Apart from creative and innovative courses, students also take part in inspiring and educational visits to unique museums such as the Museum of Broken Relationships or the Museum of Torture as well as different world-renown festivals such as Zagreb Christmas Market.

Each cycle, we also organize company visits to our partners from the business sector, providing students with invaluable entrepreneurial know-how and networking opportunities for building their future careers. Since Croatia has been a top European summer destination for decades, we want our international students to have a perfect Croatian summer experience and that is why our Summer School traditionally hosts a week of classes at different locations on the Adriatic coast! In the past, we have travelled to historical such as the towns of Zadar and Šibenik where our students soaked up the famous Mediterranean atmosphere.
After successfully participating in the International School programme and their chosen course, Algebra University College issues a final certificate as an accredited higher education institution, which will be a gamechanger in any CV and stand out in future job applications.



Don't miss a chance to become a part of invaluable summer or winter experiences where you will have an opportunity to meet young people from all over the world, learn something new and experience the Croatian way of life!

We provide our students with quality and efficiency of teaching, great programmes, expert team of lecturers and the best study abroad experience. International and Croatian students can participate in winter or summer courses in addition to studying at Algebra University College. Learn more at www.algebra.hr/international-school/ and join us!

www.algebra.university

EXCEL AT WHAT YOU LOVE DOING.
LIGHT THE SPARK.

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