Algebra
university college

1st

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**.

1st

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**.

the only

The only Croatian higher educational institution awarded with **"Meets the Quality Requirements of NVAO" certificate**.

1st

Ranked 1st as "Partner of the Year 2014" by **Microsoft** in competition of 3200 organizations globally.

20

Providing top quality education for **20 years**.

1st

Our Research LAB scientists were ranked 1st in **2017 European Big Data Hackathon** organized by European Commission, competing with data scientists representing other EU countries.

Algebra University College

Algebra University College is the flagship of largest private educational organization in Republic of Croatia and the region (Algebra group), present today in more than 20 cities across Croatia. Founded in 1998, we currently have more than 110 full-time employees and more than 400 associated experts and higher educational faculties employed also in industry. Annually, we educate around 20.000 students through various seminars and short educational programs in adult education, while in higher education we enrol more than 300 new students each year. The quality of Algebra has been recognized by our students as well as by all major software manufacturers and has been attested by the implementation of the ISO 9001:2000 certification which was introduced back in 2004.

Our main campus is located in the heart of Croatian capital Zagreb, while adult education and training programs are conducted also in: Osijek, Pula, Rijeka, Zadar, Split, Varaždin and Dubrovnik, as well as in more than ten other smaller cities. We currently offer almost thousand shorter educational programs (up to 2 weeks), some 50 accredited longer adult educational programs and 10 accredited higher educational study programs. Many of our programs are authorized by world software and equipment manufacturers such as: Microsoft, Cisco, Oracle, Red Hat, VMware, Adobe, Autodesk, EC-Council, (ISC)2 and others. We are academic and/or educational partner of all stated vendors, for most of them the only one in Croatia.

Most of educational programs for the acquisition of new qualifications, as well as all study programs in higher education, are accredited by Ministry of Science and Education and are thus linked to European Qualifications Framework (EQF). Apart of teaching focus (focus on teaching), we are also dedicated to applied research. Thus, our **Research 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 Labour market and educational policy research and development

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** between all Universities of Applied Sciences in respect to quality assurance as well as in respect to the quality of overall educational process.

Furthermore, similar recognition on the global level came in 2014 from Microsoft which awarded us **“Learning Partner of the Year”** in strong competition of 3200 partners worldwide.

Finally, our Research LAB scientists **won in 2017 European Big Data Hackathon** organized by **European Commission**, competing with data scientists representing most EU countries.

MISSION

We are creating opportunities for Croatian and international students to acquire excellent skills and knowledge and build globally competitive careers in digital technologies. We are aware of our responsibility within the community and we therefore actively promote educational excellence in digital technologies 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:

- high value received for the cost of service
- top quality of education
- operational and organizational excellence
- constant contribution to development of society in which we live

VISION

We aim to become the first choice for Croatian and international students interested in building careers in digital technologies through development of excellence in all areas of our work: infrastructure, staff, applied research, cooperation with the industry and internationalization.

Editorial

Writing this editorial coincides with the Algebra's 20th birthday, but also with the beginning of our transformation into a complex educational organization, conclusion of the most successful year so far and the announcement of ambitious plans for the next years, making it a very emotional moment indeed. That is why, if I had to use one word to describe everything that Algebra has done so far and that our future focus will be, I would use the word CHANGE! For, through the history of Algebra we have transformed hundreds of immature high school graduates into super successful computer engineers and digital economists, we have changed the careers and lives of thousands of adults attending training programs, we have transformed elementary school students into digital ninjas, while constantly changing and growing ourselves... I am particularly proud of the fact that other educational institutions have changed with us since we have set high standards and we have shown by example that things can change.

Today, our mission is coupled with one global digital platform and two slogans – „Future Without Borders" and „We Create Digital Future" – that may as well be the best description of what Algebra can represent to each individual and company, but also to our society as a whole. Rarely in the history of mankind have the education and labour market, two inseparable elements, been facing such great challenges and opportunities that are provided by the Internet and technological developments. This is precisely why I am excited that the changes we are about to make in the next 10 years, together with our students, partners and associates, will make a profound difference.

And finally, I'm honestly proud of the people I work with every day, who are living a shared Algebra's vision of digital society, global competitiveness and a secure future.

Hrvoje Balen, mag. ing. el.
President of the Board
Algebra University College

Accreditation

Curricula of all our study programs are fully compliant with the ECTS credit system (Bologna Declaration) and are part of the official system of higher education in Croatia. Our bachelor programs last for 3 years and are accredited with 180 ECTS points, while master programs last for additional 2 years and are accredited with 120 ECTS points. We have received official accreditation from Ministry of Science and Education for each of our study programs, after successful completion of initial accreditation process conducted by Agency for Science and Higher Education. That kind of position of our programs makes them recognized in European Union through referencing of Croatian and European Qualifications Framework in 2013.

Highest rated professional study program in the Republic of Croatia

We currently provide best-assessed professional higher educational study program in the Republic of Croatia according to the quality evaluation results obtained through regular re-accreditation conducted by the Agency for Science and Higher Education. We completed our re-accreditation procedure back in September 2012 with excellent marks and positive accreditation recommendation. Even after re-accreditation process has been completed in 2017 for all of the other Croatian Universities of Applied Sciences, we have still been evaluated as best professional higher educational institution.

The only institution in Croatia that has met the quality criteria of the Dutch-Flemish accreditation agency NVAO

Dutch-Flemish accreditation agency NVAO, one of European authorities in the field of quality assurance in higher education, evaluated our institution with high marks in all segments, particularly emphasizing the quality of our studies and cooperation with the industry. We are the only institution in Croatia that has met the quality criteria of this accreditation agency.

1 ESG
the best professional study program in the Republic of Croatia

agency for science and higher education croatia

FER | Approved 2013-2016

nvao
meets the quality requirements of NVAO

Algebra LAB – the heart of our research

We strongly believe in triple helix concept in which education, research and industry should interact and cooperate to develop, disseminate and use knowledge in continuous development circle. Therefore, we introduced Algebra LAB, research centre focused on three areas of research and applied projects with the industry:

Data science

Our researcher's expertise include wide range of methods, technology and projects related to data science and data economy. Within this area our researchers implemented numerous research 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 labour market analysis, VET implementation, NSI support (dissemination databases, advanced visualization and data monetization scenarios) while client range include domestic and international clients including governments and government institutions. Our team's recent achievements include winning project at 1st Big Data Hackathon organized by EUROSTAT and European Commission (March 2017).

Digital educational content

Within this area our researchers / experts implemented numerous research and implementation projects in designing and producing digital educational and assessment content and systems for different purposes, including content supporting formal primary school educational programs, content for adult education, corporate training programs and digital content for accredited online study programs. Our clients in this area are numerous organizations, companies, universities and national states.

Labour market strategy and analytics

Our experts are actively involved in numerous activities and projects in this area where we develop labour market strategic documents, implementation studies as well as meta-models of labour market data analytics systems (i.e. Sector profiles, evidence based policy support tools, ...) in Croatia, Serbia, FYRM, ...

Knowledge management

Within this area our researchers / experts implemented numerous research projects in national qualifications. Frameworks including: modelling, management and governance of NQF's, recognition of non-formal and informal learning and models of NQF IT support systems. Stated projects were implemented for national and international clients, including different national states and international

Academic partners / initiatives

We are members of the most renowned academic IT initiatives, providing additional value to our students and testifying quality of our work and dedication towards excellence. We are part of following academic partnerships:

Microsoft Developer Network Academic Alliance (MSDN AA)

In order to improve and simplify studying for our students, we became involved with this program which offers numerous advantages through DreamSpark, such as free official studying materials and latest software solutions.

IBM Academic Initiative

Within this program both we and our students receive access to advanced software and IBM development platforms as well as to all educational materials offered by IBM as a part of this program.

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 and was launched and supported by Cisco Systems.

Microsoft Imagine Academy

Microsoft Imagine Academy is a global IT educational program designed to help schools in order 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 a large demand for Microsoft technologies.

Oracle Academic Initiative

We joined the program in its advanced version "Advanced Computer Science" in order to provide its students access to the latest Oracle software as well as implement a part of its curriculum through the use of official Oracle teaching materials especially developed for academic instruction.

EMC 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.

RedHat 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.

Fortinet Network Security Academy (FNSA)

FNSA was created to address the international shortage of cybersecurity experts and to build a workforce skilled in all aspects of network security platform who will be recognized in the industry among an elite group of security professionals.

VMware Academic Program (VMAP)

WMware Academic Program (VMAP) is a comprehensive software licensing program designed specifically for the global higher education community. The VMware Academic Program supports the use of virtualization applications in teaching and research. The program 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.

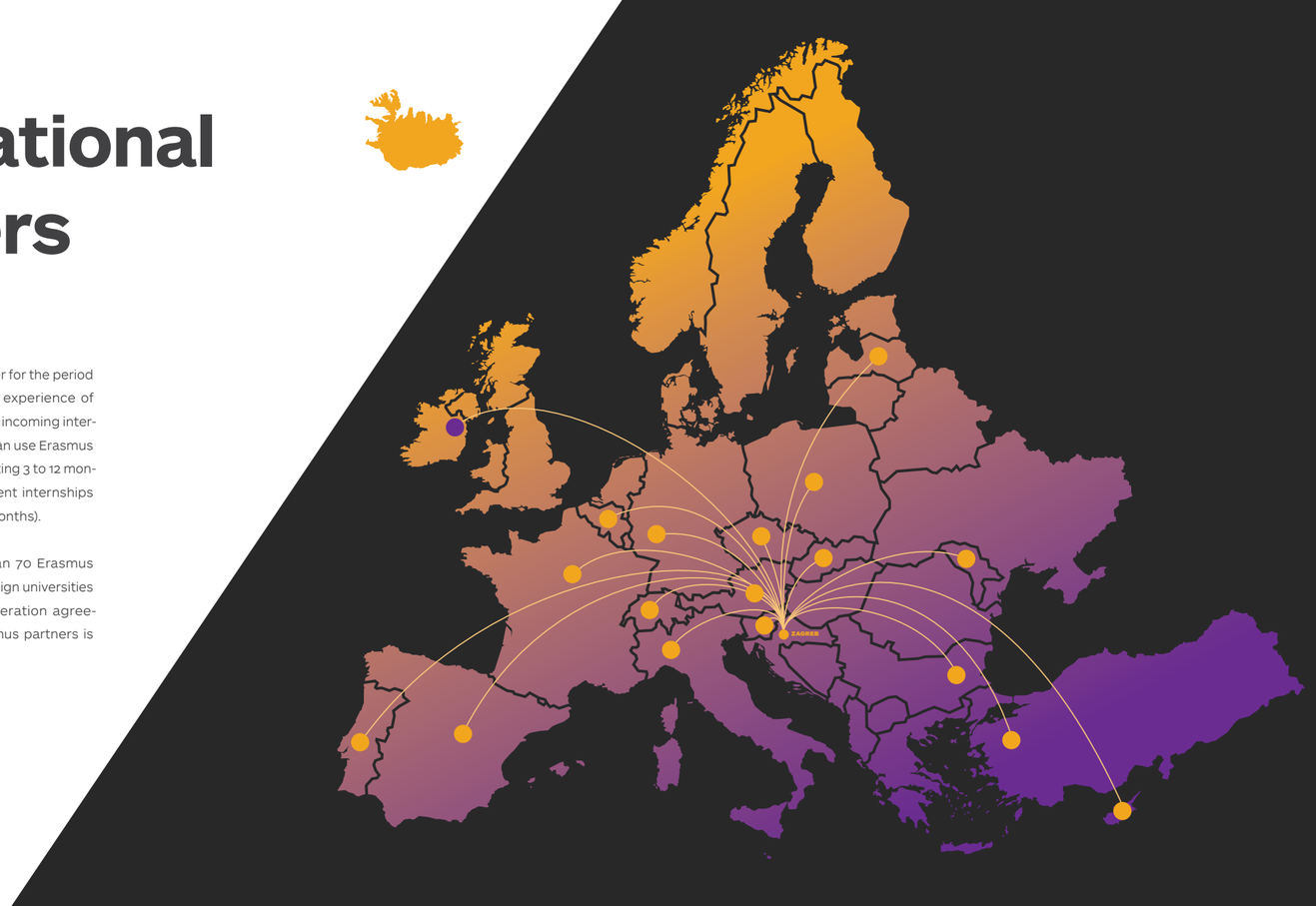
Tableau Academic Program

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

International partners

We hold ERASMUS+ University Charter for the period 2014 – 2020, providing exceptional experience of studying and living abroad to our and incoming international students. Visiting students can use Erasmus + financial support for study visits (lasting 3 to 12 months, typically one semester) or student internships (lasting 3 to 12 months, typically 2 months).

Currently we have signed more than 70 Erasmus bilateral agreements with various foreign universities and additional more than 40 cooperation agreements and MOUs. Map of our Erasmus partners is shown below.



Croatia – your live and learn destination

Croatia is among the safest countries in the world according to Global Peace Index (ranked 31 among 163 countries)

Croatia is one of the sunniest spot in Europe and one of the safest countries in the world

Croatia is EU member state with **second highest growth in number of international tourists** in 2016 and the country with **highest percentage of touristic receipt to GDP in European Union**. It is **considered one of the safest countries in the world according to The Global Peace Index 2017** produced by Institute for Economics and Peace (IEP).

More than 10 million people choose Croatia for their holidays. Why? Because of:

- Beautiful nature
- Spectacular beaches
- Soaring mountains
- Quirky museums
- Amazing historical sites
- Incredible summer festivals
- Croatian cuisine

Croatia is the home of the tie, automatic pencil, parachute and other inventions which have transformed human existence, several of which are used in everyday life.... Croatia is also the birthplace of Marko Polo, Nikola Tesla, and many more outstanding individuals.

Croatia – a small country of World's Greatest Technological Innovators

Aside from the beautiful coast and great cultural and historical heritage, Croatia has been recognized for innovation, global reference projects, export of the best business-technological practices, as well as great professionals recognized for their skills and expertise all over the world.

City of Zagreb

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

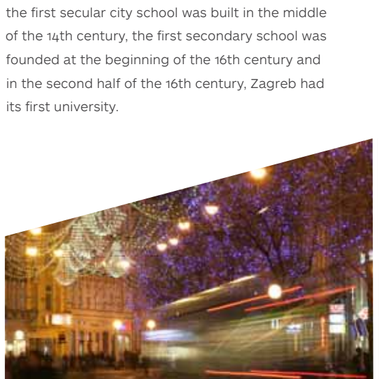
It is also a university center with forty higher education schools and over 40,000 students, a city that is proud of its long history of education: the first secular city school was built in the middle of the 14th century, the first secondary school was founded at the beginning of the 16th century and in the second half of the 16th century, Zagreb had its first university.

Zagreb is a city of science and culture. The city has approximately fifty museums and galleries, as well as private art collections and about twenty theatres and music venues. Many open-air events and exhibitions are organized from spring to autumn. While walking down the streets of Zagreb, you can admire the architecture, which mostly dates back to the Austro-Hungarian Empire.

Even though Zagreb is a Central European city, in many ways, it has a Mediterranean way of life.

Great atmosphere and friendly local people are the biggest values of Zagreb.

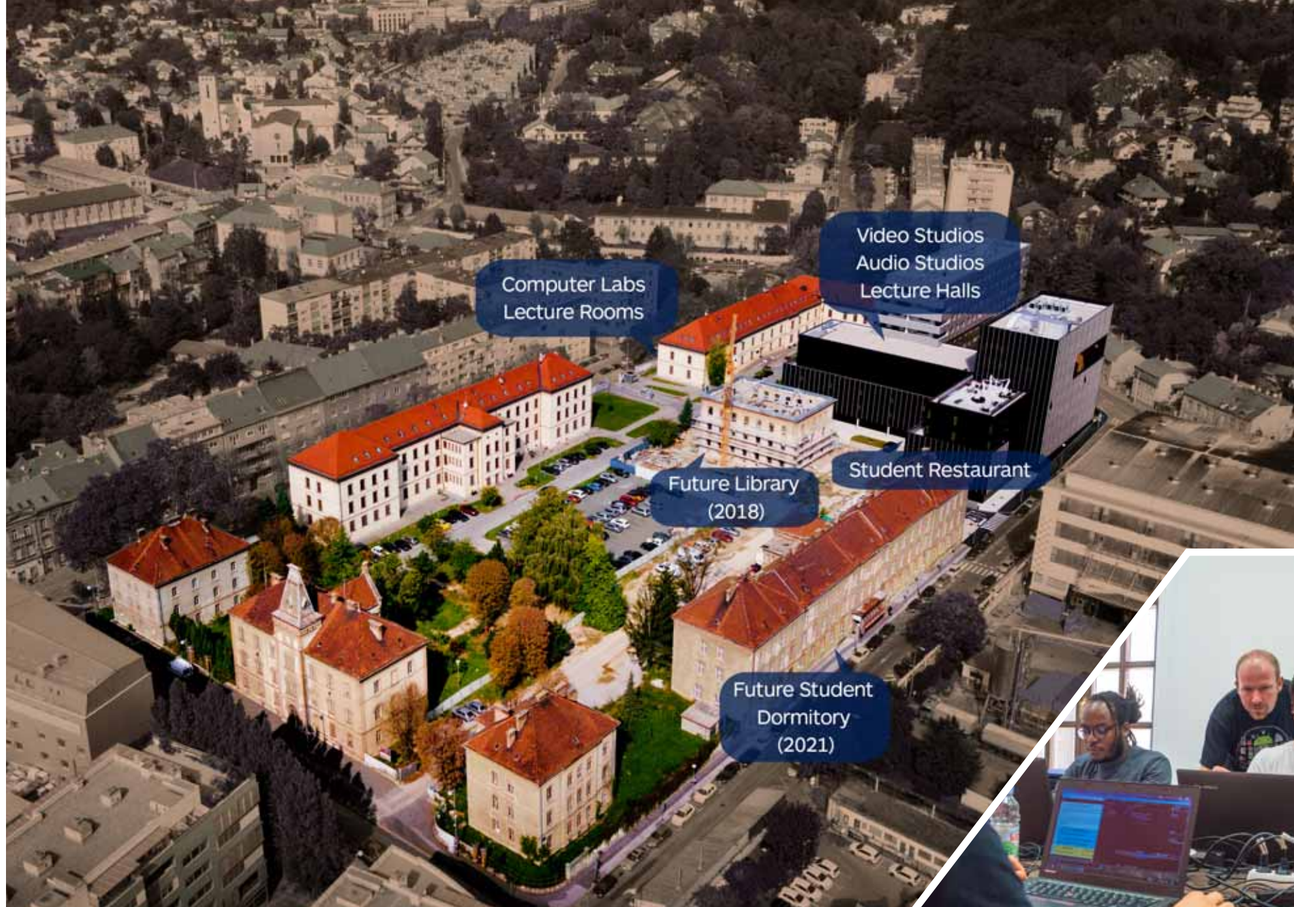
During the Advent season, Zagreb offers a variety of events that will satisfy even the most demanding visitors. Plenty of fun, excellent food, unique events, art, but also a genuine Christmas atmosphere, await you on the streets of Croatia's capital.



Campus

We are in a historical university campus in Zagreb city centre, located on the main street (Ilica) connecting central city square and Zagreb's west residential and business areas. We are well connected to other parts of the city with few tram lines and have public garage and parking lot within the campus for students / teachers using cars.

Our teaching activities are mostly based in superbly renovated and equipped building built in 1903 by Austro-Hungarian Empire to serve as University campus and in a new building commissioned in late 2017 where we have video / audio studios, student restaurant and huge lecture halls. Contrast between new technologies and old restored buildings visible in our campus creates a stimulating and dynamic environment. With thousands of square meters currently available to our students in form of lecture rooms, classrooms, laboratories, teaching cabinets, lounges, library... we seek to raise the standards of equipment and design of higher education institutions in Croatia. We expect to finish new and spacious university library (currently under construction) and student dormitory (preparations for reconstruction) in the following years.



Resources

Teaching and research resources often make part of the difference between good and excellent higher educational institutions. Following our dedication towards excellence, we significantly invested in our resources, partially also from EU development funds. As a result, our students, teachers and researchers can use:

High availability private cloud with numerous physical servers, storages, firewalls, UPS's... Stated equipment allows Software Engineering / Data Science students to use complex and high output virtual environments in our classrooms and at home in order to finish their tasks and research projects. On the other hand, this equipment allows system-engineering students to work with real life infrastructure.

Two equipped video studios, one fully professional used for formal study programs and other used for student projects and always available to students. This equipment is used by multimedia students.

Professional audio studio used for formal study programs.

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

Complete networking laboratory with numerous routers, switches, 2nd gen. firewalls and other wired and wireless network equipment for System Engineers.

Photo and video equipment that can be used by students (free rent) for their projects.

3D printers, VR equipment and lab, mostly used by Multimedia and Game development students.

IoT and robotics laboratory with numerous equipment (robots, smart home and smart city devices, many of which are either laboratory based or implemented within the campus, while some are also available on-line and are in real use throughout the city) used by Software Engineering and Data Science students.

Career centre

Times in which higher education institutions were mainly interested in conducting classes and during which the university management was mainly interested in how to assign teachers to existing courses are long behind us. Modern educational institutions in countries positioned at the top of the world competitiveness rankings provide multi-layered functional links between students and their careers, education, research and national / global economy. This strategic orientation also lies at the core of our educational model.

A development of each of our students' career is supported additionally through our Career Centre which functions as the basic meeting point between students, institution and employers. The Career Centre is available as the main source of information for our current students who are reflecting on their studies and it offers further support to students after enrolment process, handled by our Admissions Office, is finished. An advisory role in all areas necessary for students: assistance and support for successful studying, professional psychological help, organization of supplementary and additional classes, planning and realization of internships, career counselling and consultations on further academic development and employment assistance are core services of our Career Centre.

Our international employer partners

Microsoft Google vmware ERICSSON infobip
DELL McAfee IBM McCANN-ERICKSON
Canon DAIKIN amazon SIEMENS HERBALIFE

Message from the Dean

Allow me to introduce you to our study programs in Applied Computer Engineering, Multimedia Computing, Digital Marketing and MBA e-Leadership. In order for you to choose your educational institution and career on the basis of key facts and to make a better decision, in this introduction I would like to point out that digital technologies are one of the most competitive export products and that it records a strong growth in revenue and number of employees in Croatia and in the world.

In other words, by choosing a career in a propulsive and growing digital industry you are sure to have a strong initial tailwind. The same applies to digital marketing as 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 the most creative job in the field of economics that you can choose. Finally, in our MBA study program, lectured by teachers from the Kelley School of Business, the fifth best business school in the U.S. that had implemented its MBA program more than 100 years ago, you will find a unique blend of technology, business management and leadership.

Our educational programs are focused on the acquisition of practical and applicable knowledge currently required by the industry. The knowledge in question is confirmed by international IT certification of our studies and programs that ensures high visibility and employability within profession to each graduate engineer and digital marketing specialist.

We continually improve our educational programs in line with the labor market changes, technological trends and the needs that the future will create.

I invite you to recognize our specifics in the material before you: how our educational programs, teachers, practical experts and international certifications have managed to form a top professional educational institution unsurpassed in Croatian educational system.

Finally, it does make a difference which career you choose and where you create it. Allow us, therefore, to lead you towards the digital future.

Mislav Balković, PhD
Dean of Algebra University College

Our programs

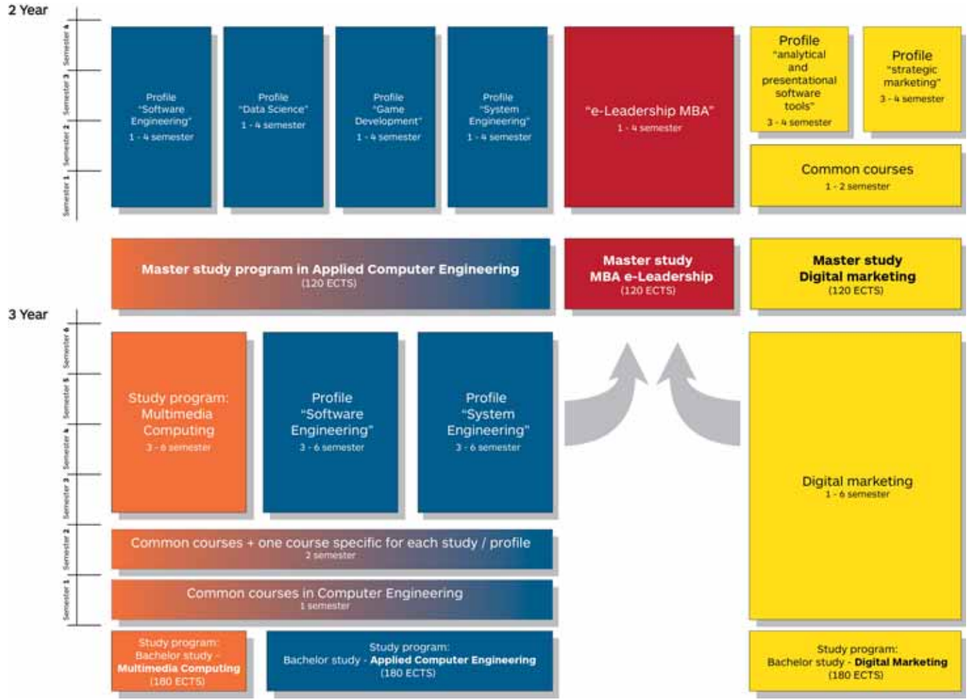
Today we carry out total of 10 study programs / specializations on bachelor or master level. All our master level programs are organized exclusively in English and exchange as well as international students can enrol in any program / course. Our bachelor programs are organized in Croatian and English, depending on the courses selected by exchange students studying in Zagreb each semester. This means that in specific semester number of English courses may vary. Our programs / specializations are:

UNDERGRADUATE PROFESSIONAL PROGRAMS
(Bachelor)

- ***Multimedia Computing***
- ***Software Engineering***
- ***System Engineering***
- ***Digital Marketing***

GRADUATE PROFESSIONAL PROGRAMS
(Master)

- ***Software Engineering***
- ***System Engineering***
- ***Data Science***
- ***Game Development***
- ***Digital Marketing***
- ***e-Leadership MBA***



SOFT
WARE
ENGINE
ERING

Bachelor study program – Software Engineering

By completing their studies, students acquire the professional title of Bachelor of Computer Engineering in corresponding sub-specialization.

This degree is typically abbreviated as BSCpE.

180 ECTS, 3 Years

YEAR 1

SEMESTER 1

English for IT
Mathematics I
Computer support for office administration
Computer Programming
Introduction to Computer Networks
Basics of Digital Electronics
Kinesiological culture 1

SEMESTER 2

Basics of Business Economy
Introduction to Databases
Mathematics II
Operating Systems
Computer Architecture
Data Structures and Algorithms
Kinesiological culture 2

YEAR 2

SEMESTER 3

Mathematical Possibility and Statistics
Basics of Business Communication
Database Design
Internet Technology Standards
Object-Oriented Programming
Elective III_1

SEMESTER 4

Project Management Methodology in IT projects
Information Systems Security
Object-Oriented Programming – lab in .NET environment
Development of Internet Applications
Java Programming I
Elective IV_1

YEAR 3

SEMESTER 5

Planning and Auditing of Information Systems
Software Engineering
Accessing Data from Program code
Interoperability in Information Systems
Elective V_1
Elective V_2

SEMESTER 6

Organization and Management
Information Systems in Business Administration
Elective VI_1
Elective VI_2
Final Project/Professional Practice

ELECTIVE COURSES

Databases Administration (III)
Management of Information Systems (III)
Project Methodologies in Application Development (IV)
Commissioning and Implementation of Information

Decision-Making Support Systems (V)
Java Programing II (V)
Managing Project Risks (V)
Application Development for Mobile Devices (VI)

Java Web Programming (VI) Cryptography (VI)
Java Web Programming (VI)
Distributed Applications and Component Programming (VI)
LDAP Systems (VI) Virtualization of IT infrastructure (VI)

Master study program - Software Engineering

By completing their studies, students acquire the professional title of Professional Master of Computer Engineering.

This degree is typically abbreviated as MSCpE.

120 ECTS, 2 Years

YEAR 1

SEMESTER 1

Entrepreneurship
Implementation and management of information services
Elective I
Software Development for Industrial and Mobile Robotics
Advanced Development of User Applications for Mobile Devices
Computer Games Development
Kinesiological culture 1

SEMESTER 2

Creativity and critical thinking
Elective II
Advanced Application Development Based on Templates
Internet of Things
Rapid Development of Java Applications Using Programming Frameworks
Cryptography

YEAR 2

SEMESTER 3

Conflict Handling and Negotiations
Elective III
Advanced Programming Paradigms
Advanced Information Systems Interoperability
Advanced Client-side Scripting
Development of 3D Games
Kinesiological culture 2

SEMESTER 4

Graduate thesis

ELECTIVE COURSES

Managing Quality in IT Projects (I)
Data Warehouse and Business Intelligence (I)
Discovering Knowledge from Databases (II)

Management of Innovation (II)
Business Process Modeling (III)
E-Business (III)

SYSTEM ENGINE ERING

Bachelor study program - System Engineering

By completing their studies, students acquire the professional title of Bachelor of Computer Engineering in corresponding sub-specialization. This degree is typically abbreviated as BSCpE.

180 ECTS, 3 Years

YEAR 1

SEMESTER 1

English for IT
Mathematics I
Computer Support for Office
Computer Programming
Introduction to Computer Networks
Basics of Digital Electronics
Kinesiological culture 1

SEMESTER 2

Introduction to Business Economy
Introduction to Databases
Mathematics II
Operating Systems
Computer Architecture
Computer Networks II
Kinesiological culture 2

YEAR 2

SEMESTER 3

Mathematical Possibility and Statistics
Basics of Business Communication
Implementation and Management of Information Systems
Operating Systems Administration
Computer Networks – lab
Elective III_1

SEMESTER 4

Project Management Methodology in IT projects
Security of Information Systems
Operating Systems – Network Infrastructure and Services
IT Network Security
Open Source Operating Systems
Elective IV_1

YEAR 3

SEMESTER 5

Planning and Auditing of Information Systems
Planning and Design of Network Infrastructure
Wireless Computer Networks
Collaboration Systems
Elective V_1
Elective V_2

SEMESTER 6

Organization and Management
Information Systems in Business Administration
Elective VI_1
Elective VI_2
Final Project

ELECTIVE COURSES

Databases Administration (III)
Applications Project Development (IV)
Commissioning and Implementation of IS (IV)
Security of Business Applications (V)
Managing Project Risks (V)
Advanced administration of open operating systems (V)
Application Development for Mobile Devices (VI)
Cryptography (VI)
Java Web Programming
Directory and identity management systems
Distributed Applications and Component Programming
Virtualization of IT infrastructure English for IT

Master study program - System Engineering

By completing their studies, students acquire the professional title of Professional Master of Computer Engineering. This degree is typically abbreviated as MSCpE.

120 ECTS, 2 Years

YEAR 1

SEMESTER 1

Entrepreneurship
Implementation and management of information services
Elective I
Advanced routing and switching
Incidents management in IT systems
Data storage systems

SEMESTER 2

Creativity and critical thinking
Elective II
Penetration testing
Advanced routing and switching 2
Advanced scripting
Future of IT Infrastructure Development

YEAR 2

SEMESTER 3

Conflict Handling and Negotiations
Elective III
Advanced protocols for service providers
Redundancy of IT services and applications
Introduction to computer forensics
Detection and removal of problems in IT networks

SEMESTER 4

Graduate Thesis

ELECTIVE COURSES

Managing Quality in IT Projects (I)
Voice over Internet Protocol (I)
Identity Management (II)
Management of Innovation (II)
Quality of Service for Networks (III)
Wireless Local Area Network Implementation (III)

GAME DEVELOPMENT

Master study program – Game Development

By completing their studies, students acquire the professional title of Professional Master of Computer Engineering. This degree is typically abbreviated as MSCpE.

120 ECTS, 2 Years

YEAR 1

SEMESTER 1

Entrepreneurship
Information Services Management
Elective I
Computer Game Development
Physical Concepts in Computer Games
Fizikalni koncepti u igrama

SEMESTER 2

Creativity and critical thinking
Elective II
Computer Game Design
3D Modeling and Texturing for Game Design
Advanced Computer Game Development
Multiplayer Game Development

YEAR 2

SEMESTER 3

Conflict Handling and Negotiations
Elective III
3D Game Development
Practical course: Computer Game Development
Virtual and Augmented Reality Application
Artificial Intelligence

SEMESTER 4

Graduate thesis

ELECTIVE COURSES

Disruptive technologies (I)
Managing Quality in IT Projects (I)
Internet of things (II)
Management of Innovation (II)
Ergonomics and Design of Software Solutions (III)
E-business (III)

Master study program – Big Data/Data Science

BIG DATA DATA SCIENCE

By completing their studies, students acquire the professional title of Professional Master of Computer Engineering. This degree is typically abbreviated as MSCpE.

120 ECTS, 2 Years

YEAR 1

SEMESTER 1

Entrepreneurship
Information Services Management
Elective I
Data Preparation
Data Warehouse and Business Intelligence
Introduction to Data Science

SEMESTER 2

Creativity and critical thinking
Elective II
Quantitative methods of data processing
Analysis of (Social) Networks
Security, privacy and ethics of digital data
Machine Learning Methods

YEAR 2

SEMESTER 3

Conflict Handling and Negotiations
Elective III
Affective Computing
Analytical Techniques Based on Large Data Sets
Advanced Machine Learning Techniques
Visualization and Analysis Software Tools

SEMESTER 4

Graduate thesis

ELECTIVE COURSES

Disruptive technologies (I)
Managing Quality in IT Projects (I)
Management of Innovation (II)
Internet of things (II)
Structured Analytical Techniques (III)
Cloud Computing and Data Analytics (III)

MULTI MEDIA COM PUTING

Bachelor study program - Multimedia Computing

By completing their studies, students acquire the professional title of Bachelor of Computer Engineering in corresponding sub-specialization. This degree is typically abbreviated as BSCpE.

180 ECTS, 3 Years

YEAR 1

SEMESTER 1

English for IT
Mathematics I
Use of Applications in Business Administration
Computer Programming
Introduction to Computer Networks
Basics of Digital Electronics
Kinesiological culture 1

SEMESTER 2

Introduction to Business Economy
Introduction to Databases
Mathematics II
Operating Systems
Computer Architecture
Applied Physics
Kinesiological culture 2

YEAR 2

SEMESTER 3

Visual Communications Design
Introduction to Marketing and Media Communications
Electroacoustic and Professional Audio Equipment
Internet Technology Standards
Introduction in administration of Operating Systems
Elective III_1

SEMESTER 4

Project Management Methodology in IT projects
Project development of video games
Web and User Interface Design
Introduction to Object-Oriented Programming
Elective IV_1
Elective IV_2

YEAR 3

SEMESTER 5

Basics of Business Communication
Advanced Web design
Introduction to Video Production
PHP Programming
Elective V_1
Elective V_2

SEMESTER 6

Internet Marketing
Content Management Systems
Elective VI_1
3D Modelling and Texturing
Final Project

ELECTIVE COURSES

Design and management of Information Systems (III)
Multimedia Publishing (III)
Security of Information Systems (IV)
Vector 2D Animations (V)
Collaboration Systems (V)
Development of Web Applications (VI)
Sound Processing (VI)
Postproduction of Digital Video (VI)

Bachelor study program - Digital Marketing

By completing the study program, students acquire the professional title of Professional Bachelor of Digital Marketing. This degree is typically abbreviated as BSDM.

120 ECTS, 2 Years

DIGI TAL MARKE TING

YEAR 1

SEMESTER 1

Introduction to Marketing and Media Communications
English for IT
Mathematics
Computer Support for Office Administration
Basics of Economy
Kinesiological culture 1

SEMESTER 2

Statistics
Project Management Methodology
Consumer Behavior
Visual Communications Design
Sales and Negotiations
Kinesiological culture 2

YEAR 2

SEMESTER 3

Market Research
Digital Advertising
Computer Tools in Visual Communications
Standards in the Application of Internet Technology
Public Relations

SEMESTER 4

Interactive Systems Design
Legal regulation and self-regulation
Marketing on Search Engines and Advertising Networks
Network Analysis and Social CRM
Interaction Analysis in Digital Marketing

YEAR 3

SEMESTER 5

E–business– Customer Relationship Management
Integrated Marketing Communication
Content marketing
Elective module III_1
Project: Project in Cooperation with the Industry– Situation Analysis with Digital Marketing Approach Plan

SEMESTER 6

E-business – Integrated comercial projects
Entrepreneurship
Integrated Marketing
Elective module III_2
Final Paper: Project in Cooperation with the Industry – Digital Marketing Strategy Proposal

ELECTIVE COURSES

Creativity and Creative Expression
Psychology of user experience
Digital Projects Development and Development Team Management
Development and Management of Multimedia Contents
Organization Of Digital Agencies
Psychology In Marketing Communications

DIGITAL MARKETING

Master study program - Digital Marketing

By completing the study program, in accordance with Article 74 of the Act on Scientific Activity and Higher Education, students acquire the professional title of Professional Master of Digital Marketing.

This degree is typically abbreviated as MSDM.

120 ECTS, 2 Years

YEAR 1

SEMESTER 1

Brand management and reputation
Disruptive techologies
Strategic management in digital campaigns
Digital data in marketing
Behavioral economics
Design thinking 1 – creativity and critical thinking

SEMESTER 2

Security, privacy and ethics of digital data
International marketing
Quantitative methods in marketing
Application of game theory in marketing
Marketing strategies based on large data sets
Network analysis and social crm

YEAR 2

SEMESTER 3

Innovation, product and service development
Digital transformation
Communication and presentation skills

Elective marketing module

Interest organization marketing
Alternative marketing channels and future technologies

Elective software module

Analytical software tools in marketing
Visualization software tools in marketing

SEMESTER 4

Graduate thesis

e-Leadership

MBA STUDY

Algebra university college

IgBS ZAGREB

In a technology dominated world, the lack of e-leadership education is striking. Algebra University College, Zagreb (Croatia) is among the first higher-educational institutions in Europe that has developed and accredited an e-Leadership MBA Program. In a nutshell, e-Leadership MBA Program 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 of breed MBA experience (traditional & advanced technology & strategy oriented e-Leadership).

Program 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 Algebra University College own faculty, 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.

The two-year e-Leadership MBA Program consists of 18 (17 + 1 Introductory) Modules exercised in duration of 40 lecturers' led contact hours each (total of 720 contact hours), a Business Plan Case Study and Master (Final) Thesis. The two year program worth of 120 ECTS actually act 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.

MBA MODULES

- INTRODUCTION TO LEADERSHIP (MBA REQUIREMENTS AND VALUE)
- MANAGERIAL ECONOMICS
- STRATEGIC MANAGEMENT
- OPERATIONS MANAGEMENT
- FINANCIAL MANAGEMENT
- CRITICAL THINKING AND CREATIVITY
- MARKETING AND SALES MANAGEMENT
- FINANCIAL AND MANAGERIAL ACCOUNTING
- QUANTITATIVE METHODS
- PROJECT MANAGEMENT
- ENTREPRENEURSHIP & INNOVATION
- STRATEGIC MANAGEMENT OF TECHNOLOGY AND INNOVATION
- DIGITAL TRANSFORMATION AND BUSINESS PROCESS MODELING
- INFORMATION SYSTEMS IN MODERN ORGANIZATIONS
- MANAGING INFORMATION RISK AND SECURITY
- IT SERVICE MANAGEMENT
- MANAGING AND LEADING PEOPLE IN GLOBAL ENVIRONMENT
- NEW PRODUCTS MANAGEMENT
- BUSINESS PLAN (DESIGN THINKING)
- MASTER THESIS (MENTORED PROJECT)

LEARN MORE:
www.eleadership.mba

Alumni

Danijel Studen,

Amazon Data Services, Ireland
System Engineering

„The study was full of “current” and actual themes, indeed, almost everything that was done, taught and practiced were things that are immediately applicable in the real world as a knowledge.“

Šime Zagorac,

Norwegian Cruise Line, Norway
System Engineering

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

Matija Komorčec,

HCL Techologies, Germany
Multimedia Computing

“The technological knowledge, I have gained during my studies, is still useful today, no matter how technology changes and develops rapidly, some programming and thinking basics are the same and transferable between technology and language.”

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 today I would be a much weaker team member.”

Dominik Antolković,

IBM, Czech Republic
System Engineering

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

Antonia Šakić,

Universal McCann, Croatia
Digital Marketing

“Perhaps the best thing about the Algebra University College is that lectures are given by teachers who do not just read from the book, they are already experienced with active campaigns and real clients.”

Accommodation & food

Republic of Croatia subsidizes its full time students and this subsidy applies also to international and exchange students. Subsidized food is available in public student restaurants, where 3 meals per day food plan allow for good quality and quantity food plan for approximately 100 to 170 EUR / month.

Similarly, public student dormitory accommodation in newly refurbished, good quality rooms for 2-3 students would cost each student around 100 EUR per month. In following years, we will have such dormitory in our campus, while now we use few well maintained public dormitories in relative vicinity of our campus (3-5 km). Also, if the student wish to stay in a private accommodation, we assist them to find private accommodation as we closely cooperate with Home In Zagreb agency https://www.homeinzagreb.com/, but we could also provide helpful links to other rental agencies that offer long and short term apartment rental. If the students want to stay in a hostel, we could recommend modern & urban designed hostels, located in the heart of Zagreb which would cost them around 250-500€/three weeks, depending on the season. The international students who already attended our courses recommend Airbnb.com and Booking.com services.

Although prices of private accommodation in Zagreb may vary depending of the city area, size and amenities that apartments include, the University College would be happy to assist you in finding accommodation.

Sports & leisure

It is generally known and scientifically demonstrated that 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 (World Health Organization, 2017).

Algebra University College puts a lot of effort in the quality of life and health of its students. One of the most important goals in academic year 2017/2018 is the introduction of a mandatory course of Kinesiological Culture. The most important objectives of the course are:

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

Except programmed exercise in Kinesiological Culture 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 of the kinesiologist, in order to be the best prepared for the competitions.

For raising the quality and attractiveness of our study on a higher level, we organize and support the departure of our students to international university competitions - Elektrijada, Tehnologijada, University Games etc. With competitions in sports and scientific disciplines, our students have opportunities at such events to make valuable contacts, exchange experiences with students from other faculties and universities and have fun.

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

Our sports director Tin Petračić, masters of kinesiology, is responsible for organizing, implementing and controlling our sport recreational activities.

International cooperation

Window into the world

In order to enable our students high quality education and improvement as well as wellbeing of wider social community, we empower many activities to our students, teachers and employees, but also to international students and experts who share our values and convictions.

Regarding this, the International Cooperation Department, on one hand, supports international cooperation through joint development projects and active work within the framework of European and world initiatives that contribute to the development of our country's economy and education system while providing support for student and teacher exchanges and encourages the implementation of practical teaching abroad.

We believe that through international cooperation and exchange of knowledge and experience with top foreign institutions as well as constant building and improvement of internal forces and investing the necessary resources, we can successfully build an internationally comparable educational institution that will truly represent a competitive advantage for the national economy on the European and global markets.

Spend a semester abroad

Algebra University College is the holder of the ERASMUS + University Charter. Erasmus + is the latest program of the European Union for Education, Training, Youth and Sports for the period 2014-2020. which, among other things, enables mobility at the level of higher education. Erasmus + provides the possibility of study stay or professional practice at a European institution host. The Algebra University College has signed an agreement with more than 70 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 foreign university.

Summer & winter schools

We provide our international students quality and efficiency of teaching, great programs, great teachers and the best experience in Croatia during their stay. Students can participate in winter or summer courses apart from studying at Algebra University College.

Students are provided with the opportunity to meet outstanding and ambitious colleagues from all over the world, visit some of Croatia's world famous landmarks and explore the rich historical and cultural heritage of our country. In addition, students will also have the opportunity to experience unforgettable moments at quirky museums, beautiful nature as well as incredible festivals and events.

International Winter school
in Zagreb 2017/2018

We offer two courses in the winter semester:

December 1 - 10, 2017
Video Production
CREATE A VIDEO FROM A TO Z
4 ECTS/2 US credits

Learn how to make a short commercial film using basics in video production going through all phases of production, from the idea to the final video. Learn about film theory and use in marketing using film standards in writing screenshots, concepts, storyboards, plans and organization for filming.

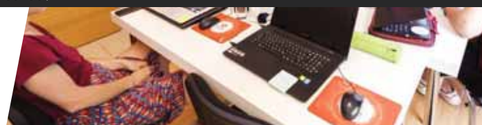
Each student will make his/her own version of film/commercial using the footage we film during Advent in Zagreb.

January 3 - 17, 2018
Cyber Security
THE FORC3 IS STRONG WITH THIS ONE
6 ECTS / 3 US credits

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

The students will be able to visit Ladies' and Men's Slalom, Snow Queen Trophy (January 3.-4, 2018)

Learn more: www.summer.algebra.university/winter-school/



International Summer School 2018
in Zagreb & Šibenik

July 8 – 27, 2018
6 ECTS/US credits per course

The students who want to learn about digital marketing strategies and user behaviour, figure out how digital is transforming the way we live and work, how to develop mobile applications, all about data security, or 3D animation and game design, maybe learn about the "dark side" of the security and how to use "the force" the right way, have come to the right place! Welcome to the Summer School for international students in Europe!

Our Summer School program is anything but boring, it's more than lectures and workshops – the students will have time to meet outstanding and ambitious colleagues as we share the magic of Croatia with them. We want to introduce them to some of Croatia's world-renowned places and its rich cultural and natural treasures. The program offers a fantastic summer experience in the cities of Zagreb and Šibenik and enables the participants to explore the rich cultural and historical heritage of Croatia.

Learn more: @ www.summer.algebra.university

CHECK OUT OUR SUMMER COURSES:

DIGITAL MARKETING
NEW WAYS OF COMMUNICATION

The course will introduce students to digital marketing strategies and user behaviour, from content marketing, search, social to analytical tools used to track the success of digital campaigns. During the course, students will acquire Google AdWords and Google Analytics Certificates.

3D ANIMATION & SIMULATION
FROM THE VERY BASICS TO RAW FOOTAGE VIDEO MATERIAL

The course is designed to introduce students to the field of animation by giving them a broad knowledge of key frame animation and the way it is blended together with or without user involvement. The course will continue to elaborate on certain dependencies between objects, hierarchies and links that are commonly used to relate objects to one another in order to animate just one object and influence others.

CYBER SECURITY
THE FoRC3 IS STRONG WITH THIS ONE

Cyber security is an ever-evolving field with opportunities waiting for everyone with the interest to learn more and develop their skills in this interesting and demanding topic. This course will show the basic steps most of the hackers would go through while compromising the victim's computers and it will define some interesting known and less known attack vectors and protections against them.

MOBILE APPLICATION DEVELOPMENT
FROM IDEA TO CREATION

The use of mobile technology is an opportunity to expand customer relationships. Cell phone is always on, always at hand and knows where you are. Mobile phones are a useful tool that adds value. The industry of mobile applications definitely has a prosperous future. The students will be able to implement applications that use dialogs, menus, user preferences, background services, sqlite database, google maps and location services, web services, phone and SMS features.

ADDITIONAL FREE WORKSHOPS FOR ALL SUMMER SCHOOL STUDENTS

- Croatian Language & Culture
- Financing early age startups

The Tuition Fee also includes:

CULTURAL VISITS: Memorial Nikola Tesla, Smiljan; National park Plitvice; Quirky Museums

SOCIAL PROGRAM: Zagreb & Šibenik day trips and sightseeing

International field courses

Within the field course, students of Algebra University College have an opportunity to stay abroad once a year. Apart from attractive tourist locations, study trips are characterized by a large number of visits to successful companies, scientific research centers and other business leaders in the world market.

Here are some of the locations where Algebra University students got to know the latest trends, listened to lectures by international experts and return to the faculty with new relevant knowledge and skills:

DUBLIN

- The Google Central Office
- The oldest Irish University –Trinity College

MÜNCHEN

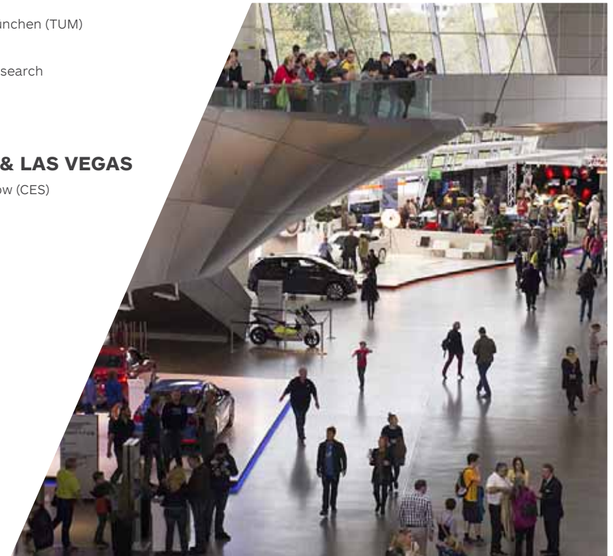
- Technische Universität München (TUM)
- BMW Welt
- General Electric Global Research
- Deutsches Museum

SILICON VALLEY & LAS VEGAS

- Consumer Electronics Show (CES)
- Pixar
- Apple
- Facebook
- Google
- Oracle

CALIFORNIA

- UC Berkeley
- Stanford



What makes us different?

We believe that three specific features of the Algebra University College are worth considering when deciding on your career and choosing an institution in which you will create it.

Firstly, our students acquire knowledge necessary for fast growing industries based on digital technologies. This gives them a strong tailwind 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 94 % of Algebra University College students start working within three months after graduation.

Our second competitive advantage is constant monitoring of technological developments as well as the real needs of employers, which results in academic program improvements. Recognizing the advancements in education, we were the first institution to apply a modern approach to qualification framework and thus developed the implementation methodology. It is precisely this methodology that became a part of the official guidelines which will be applied during the following years by other institutions in accordance with the more diverse needs of employers and technological developments.

Finally, our third specific feature is the orientation towards true quality demonstrated by the assessment of our quality assurance system by the Agency for Science and Higher Education which makes Algebra University College the best professional study program in Croatia. We are also the first private higher education institution that was issued a certificate for its quality assurance system by this Agency, and the only professional study program with the certificate "Approved by FER" which is the result of a successful completion of continuous assessments of work quality. We proudly point out that in 2014 we were named the best Microsoft learning partner in the world.

4 undergraduate study programs/ specializations

6 graduate study programs/ specializations

1000+ students in higher education

96% of alumni employed within six months after graduation.

Location & contact

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