



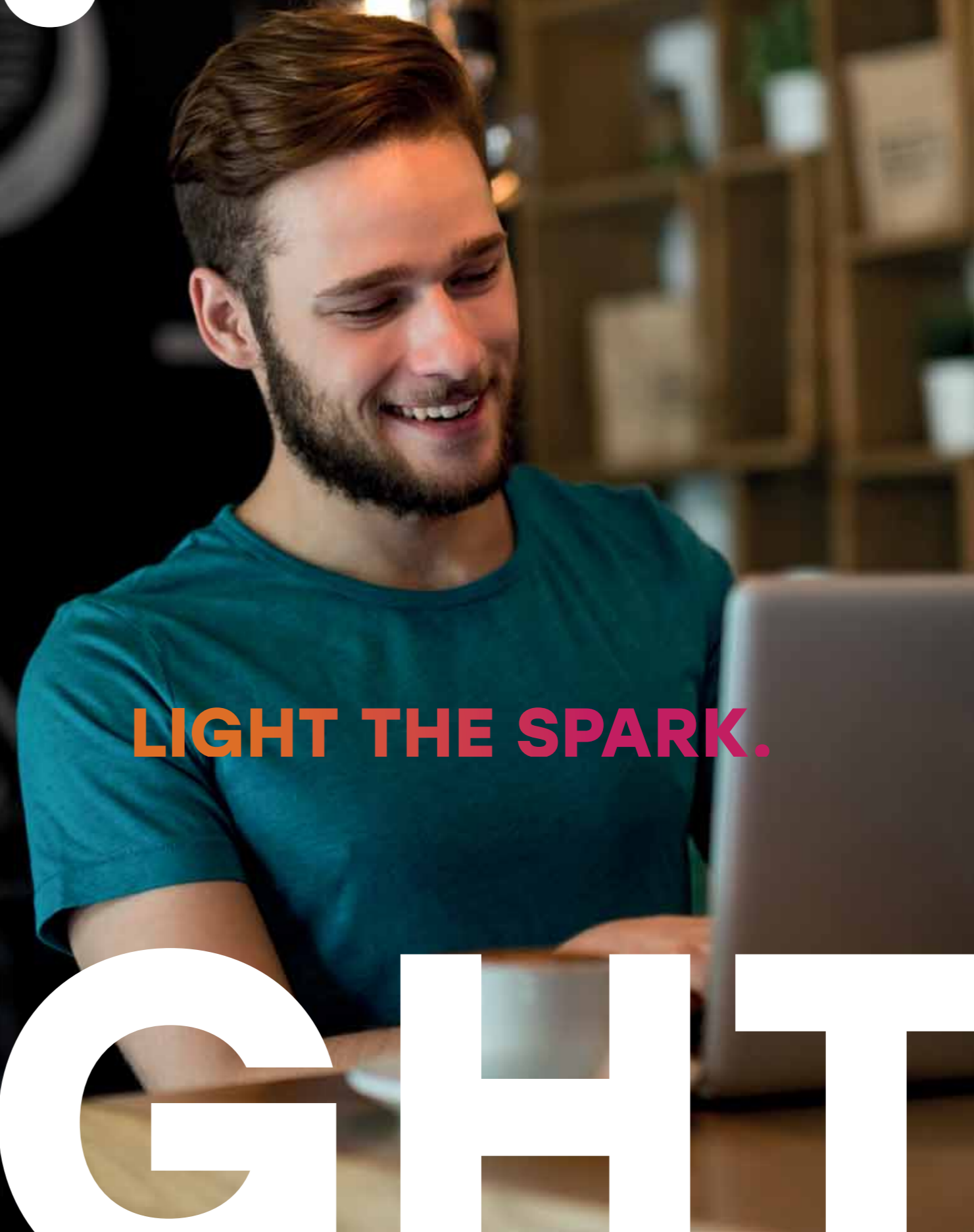
**ALGEBRA**  
UNIVERSITY  
COLLEGE



**EXCEL AT WHAT  
YOU LOVE DOING.  
LIGHT THE SPARK.**

# SPARK.

- 1 HOME
- 5 OUR KEY INDICATORS
- 8 ABOUT US
- 10 MISSION AND VISION
- 11 WHAT MAKES US DIFFERENT
- 12 CAMPUS
- 14 ACCOMMODATION AND FOOD
- 15 CROATIA
- 16 ZAGREB
- 18 OUR RESOURCES
- 20 ACADEMIC PARTNERS/INITIATIVES
- 22 CAREER CENTER
- 22 ADMISSION OFFICE
- 23 ECONOMIC COUNCIL
- 24 PARTNERS ABOUT US
- 25 COMPANIES WHO EDUCATE THEIR EMPLOYEES AT OUR INSTITUTION
- 26 SPORTS AND LEASURE
- 28 INTERNATIONAL COOPERATION
- 32 MESSAGE FROM THE DEAN
- 33 ALUMNI
- 34 OUR STUDY PROGRAMS
- 88 ADMISSION PROCEDURE FOR INTERNATIONAL STUDENTS
- 90 ALGEBRA LAB - THE CENTER OF OUR RESEARCH
- 91 STUDENT OFFICE
- 92 CONTACT



**LIGHT THE SPARK.**

# LIGHT



**Creating  
digital future  
for 20 years**

**5**

**undergraduate  
study programs/  
specializations**

**graduate study  
programs/  
specializations**

**7**

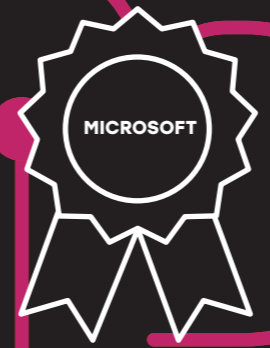
**higher education  
students**

**10000+**

**140**

**professors  
and associate  
teachers**

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 as “Partner of the Year 2014” by Microsoft in competition of 3200 organizations globally.

**1.**

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.

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.



**96%**

96% of alumni employed 3 months after graduation.

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



**22%**

The fastest growing! The average annual growth rate of the number of enrolled students in our undergraduate studies over the past three years is 22% per annum.

**1.100**

1.100 computers and physical servers is available in our classrooms an laboratories.



# About us

**Algebra University College is the flagship of largest private educational organization in Republic of Croatia and the region, present today in more than 20 cities across Croatia. Founded in 1998, we currently have more than 140 full-time employees and more than 400 associated experts. Annually, we educate around 15.000 students through various seminars and short educational programs in adult education, while in higher education we enrol more than 300 new students each year.**



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 a thousand shorter educational programs (up to 2 weeks), 50 accredited adult educational programs and 12 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, IMC2 and others. We are academic and/or educational partner of all the 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) through our National Qualifications Framework. In addition, 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

## 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:

- I. high value received for the cost of service
- II. top quality of education
- III. operational and organizational excellence
- IV. 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.

## What makes us different

**We believe that through this publication you might recognize three of our specific features worth considering when deciding on your career and when choosing institution in which you will build it.**

**1** First of all, 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 96%\* students start working within three months after graduation.

**2** 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 worldwide, we were the first institution in Croatia to apply modern qualification framework approach in design of our programs and have developed the implementation methodology for it. It is precisely this methodology that became a part of the official guidelines which will be applied during the following years by other Croatian

\*Of all students who want are actively seeking for a job.



institutions 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 between all Universities of Applied Sciences in respect to quality assurance, as well as in respect to the quality of overall educational process. We are the only Croatian higher educational institution awarded with “Meets the Quality Requirements of NVAO” certificate by Dutch Flemish accreditation agency NVAO.

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

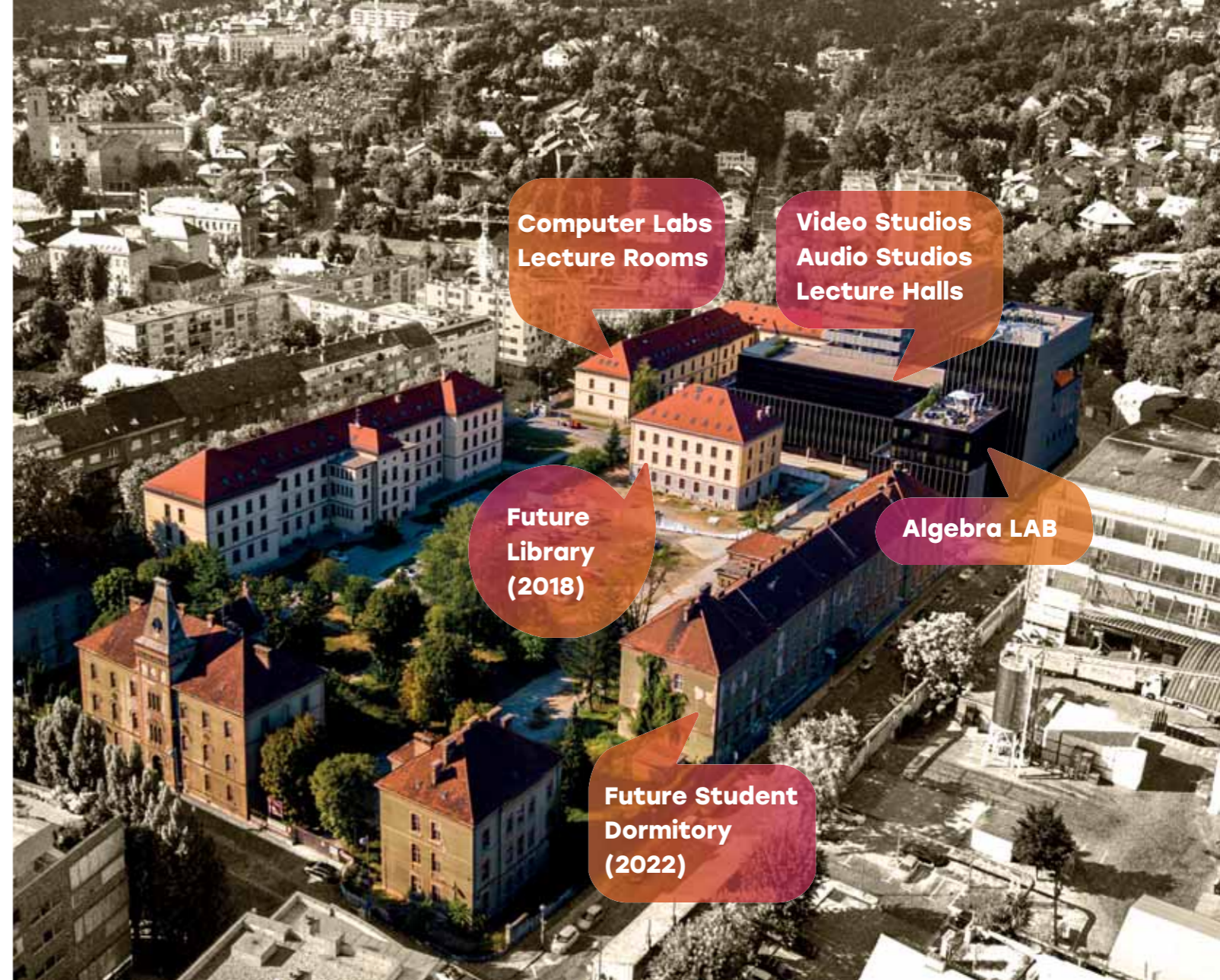


# Campus

**We are situated in a historical university campus of CUC 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, now a part of Catholic University of Croatia campus, and in a new building commissioned in late 2017, where we have video / audio studios, student restaurant, research facilities, coworking & accelerator and huge lecture halls. Contrast between new technologies and old restored buildings visible in our campus creates a stimulating and dynamic environment. With more than 4000 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 resources, equipment and design of higher education institutions in Croatia. We expect to finish our new and spacious university library in the next academic year, and in the years to come the new student dormitory as well. Both library and student dormitory are located within the Campus.



More than 4000 square meters of lecture halls, classrooms, laboratories and library

1903

Completely refurbished and redecorated old building

New building

2017



New university library and student dormitory under construction.



# Accommodation and food

Republic of Croatia subsidizes its full time European students and this subsidy applies to international and exchange EU students as well. Subsidized food is available in public student restaurants, where you can have 3 good quality and quantity meals per day 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, but should be reserved as soon as you decide to enrol due to necessary in advance reservation. In following years, we will have such dormitory in our campus (currently in development), while now we use few well maintained public dormitories in relative vicinity of our campus (3-5 km), reachable by public tram transportation. 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 (near our campus) which would cost them around 250-500€/per month, depending on the season. 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.



# Croatia – your live and learn destination

Croatia is one of the sunniest spots 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).



Croatia is land of innovators and home of: tie, automatic pencil, alternating electrical currents, electrical transformers, powerlines, 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.



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





# 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 institutions and over 80,000 students, a city that is proud of its long history of education: the first city school (primary) 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.



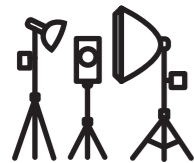


# Our resources

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 complex real life infrastructure.



Two equipped video studios, one fully professional used for formal study programs and other (smaller) used for student projects and always available to students. This equipment is used mostly 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, next generation 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.



# Academic partners / initiatives



## Microsoft Developer Network Academic Alliance (MSDN AA)

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



## 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.



## Oracle Academic Initiative

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

## Microsoft Imagine Academy Program Member

### 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.



## IBM Academic Initiative

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



## EMC<sup>2</sup> 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.



## Tableau Academic Program

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

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.



## 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.



## VMware Academic Program (VMAP)

VMware 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.



## 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.



## 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. Using provided Fortinet technology we support our System engineering students and programs.



## 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.



Rely on expert advice.

## Career Centre

The primary task of our experts at the Career Center is to provide students with career support and counseling during the study. This means that we are systematically working on strengthening competencies of our students, which are important in the labor market. Career Center also helps students in contacting prospective

employers through various activities, lectures and mandatory as well as voluntary work placement.

You can contact the Career Center for help and support when your study results are not consistent with your expectations as well as when you need to talk about various topics from academic to private spheres.



Head of Career Centre  
**Martina Matejić**  
Phone  
**00 385 1 2222 180**  
E-mail  
**[martina.matejic@algebra.hr](mailto:martina.matejic@algebra.hr)**

## Admissions Office

Following the global trends in higher education, we established the Admissions Office with the aim of introducing future students with the many advantages of studying at the best rated professional higher education institution in Croatia. Admissions office is available to our students from the moment they start thinking about the study. It will serve them as the main point of information and support throughout the entire enrollment process. Our students will be in touch with the Admissions Office until they begin the study. After that all further support is taken over by the Student Office. International students interested in enrolling should seek support of

International office, not the Admissions office.



Head of Admissions Office  
**Milan Dukić**  
Phone  
**00 385 1 2222 148**  
E-mail  
**[prijavni.ured@algebra.hr](mailto:prijavni.ured@algebra.hr)**

## Economic Council

The main function of the Economic Council is to represent a link between the economy and education, thus ensuring a balance on the labor market and the development of the entire environment. The cooperation between Algebra University College and the economy is not only a wishful thinking.

The Economic Council is a body that consists of representatives of employers, public institutions, local authorities, academic communities and professional associations, and its basic function is to provide our students and the institution a high quality link to the leading employers and help determine the strategic direction of our program development.



Without such cooperation, we would quickly lose our relevance and there would be in a serious danger that the classes we teach would cease to sufficiently provide knowledge and skills necessary for the labor market. For this reason, we have established our Economic Council with the specific aim to reflect upon the development of our programs and to help us continuously improve our quality and market relevance.

Since the shortage of skilled IT professionals is very emphasized in Republic of Croatia, we know that companies with whom we have established cooperation will be interested in offering certain forms of student scholarships and employment opportunities.

In addition, with the support of Economic Council we invite leading experts from local partner companies and international corporations as visiting lecturers in our courses.

Check out the members of our Economic Council and learn more:  
**[www.algebra.university/economic-council/](http://www.algebra.university/economic-council/)**





# Partners about us



**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 nowadays rare.”



**Zoran Šimunić, PhD**  
Senior Executive Officer  
Privredna banka Zagreb



„We have the best experience with students, prospective employees, when we involve them in business processes before and during graduation, because it allows us to provide them with additional specific knowledge in areas where they will work later.”



**Assistant Professor,**  
**Darko Huljenić, PhD**  
Manager for Technological and Scientific  
Activities - Ericsson Nikola Tesla



„A number of collaborative programs involving various forms of practical work help students to gain valuable experience in the technology sector during their studies, working on concrete projects. Particularly important for students who have completed a study at the Algebra University College is that after graduation they already have valuable industrial certificates. “

# Companies who educate their employees at our institution



Co-operation with leading companies is completely bi-directional. On the one hand, it provides our students the chance of getting hired by one of these companies, while on the other hand the companies educate their specialists / employees in one of our programs.





# 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\*.**



**W**e invest a lot of effort in the quality of life and health of our students. One of the most important goals in recent years was the introduction of a mandatory course of Kinesiological Culture in year one of all our bachelor programs. 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 to a higher level, we organize and support the departure of our students to international university competitions such as: Elekrijada, 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.

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

**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.**





# International Cooperation

Our International Office, 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 economy and education.

On the other hand it provides support for student and teacher exchanges and it encourages the implementation of work placement (with employers) abroad. We believe that through international cooperation and exchange of knowledge and experience with top foreign institutions as well as through constant building and improvement of our internal 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.

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

## 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, financially supports mobility of students, teachers, researches and non academic staff.

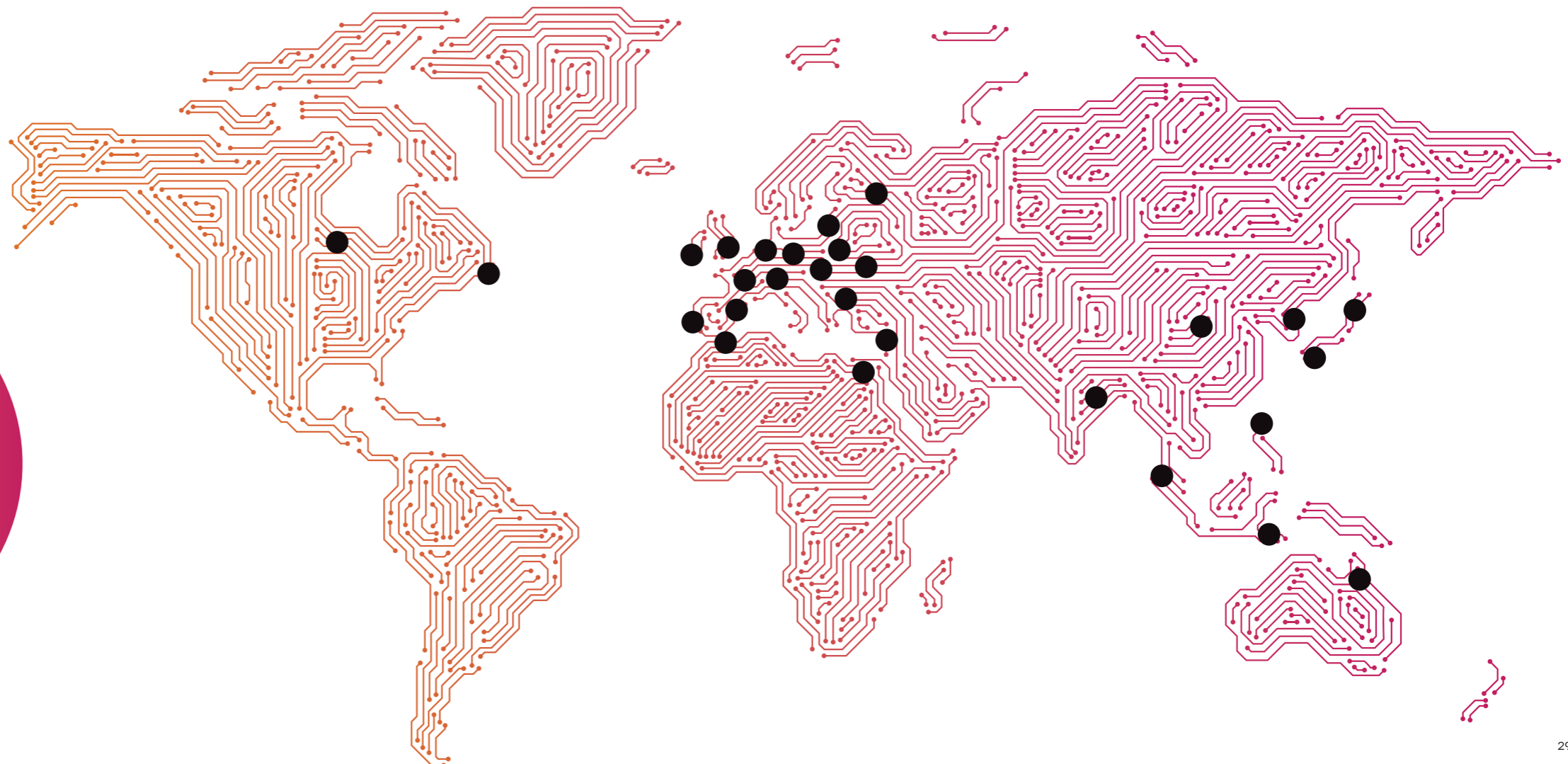
Erasmus + provides the possibility of student exchange programs or work placement at a European (and many non-European) institution host. Algebra University College has signed an Erasmus agreement with more than 60 educational institutions, where our students can stay, including the oldest and largest universities across Europe, and has prepared

**We hold the ERASMUS + University Charter for the period 2014 – 2020.**

additional financial benefits for students who decide to study abroad to experience studying at foreign university.

Besides universities with whom we partner through Erasmus + program, we currently partner with additional more than 20 overseas universities in parts of the world not currently covered by Erasmus. Through stated 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.

**Window into the world**







# Nikoleta Angelova,

Erasmus exchange student,  
Bulgaria

**N**ikoleta Angelova is a student from Bulgaria who arrived at the Algebra University College at the beginning of the academic year 2017/2018. With the aim of completing the winter semester in our course of program engineering, but as she enjoyed her stay in Croatia and our study program, she decided within Erasmus + to request an extension of her stay for another semester. Recently, also with support of Erasmus +, she found a work placement, and soon after short-time training for new employees, she started working in the company "Business Intelligence". Our career center helped Nikoleta to find this work placement and hence her real employment in Croatia.

### Why did you decide to finish part of your study in Croatia?

This decision came in a bit unusual way and I made it at the last minute. I was choosing between Latvia, Lithuania and Croatia. The professors assured me that everything would be fine, whatever the location was, but I saw that Zagreb was a great city, close to the beautiful shore and I decided to go to Croatia. Soon after that, I found Algebra's web, I was impressed with all the information I found there and how well organized they were and that assured me that it was the right decision for me.

### What did you study in Bulgaria and what you are studying now in Algebra?

I have been studying in Bulgaria for the first few years a combination of economics and information technology, and at the end of my undergraduate study I studied programming in some specific programming languages as well. At the Algebra University College, I continued to learn programming languages and I noticed that very innovative methods are used in teaching and learning, so these two semesters in Zagreb were very interesting.

### Apart from courses related to software engineering, during the two semesters here, have you found other courses related to managerial and business skills also useful?

Yes, they were particularly useful in dealing with project management and modern management. Teachers have given us a lot of knowledge about this matter. During the study I have gained a broad perspective in the programming and got some insight also in the management area, mostly in ICT management.

## Look at our academic trips as a marriage of convenience really. You get to see and talk to the experts, meet the locals, get to know a new culture and have a cold one in the process...

Join us, see the World, they said...

We certainly didn't lie about it! Each year we take a fancy trip abroad. So far, we've stolen gold from the leprechauns in Dublin, missed the Oktoberfest in Munich by a second, observed how start-ups...well, start up in the Silicon Valley and put the stay in What Happens in Vegas, Stays in Vegas.

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

Central offices of Google in Dublin, Ireland, German headquarters of Electric Global Research, legendary Harvard, Stanford, Berkeley and MIT universities, as well as IBM Watson research center. This is just a part of the location list our students could cross off of their bucket lists. A unique chance to get the firsthand peek at the newest trends, listen to the lectures of world renowned experts and return home armed with new knowledge and skills.

In the past years, our field studies took us to San Francisco, Boston, Silicon Valley and CES in Las Vegas. Each year we visit more attractive Universities and companies.

## Get inspired and join our International Summer and Winter schools

Our International School program is more than lectures and workshops – you'll have time to meet outstanding and ambitious colleagues from all over the world as we share the magic of Croatia with you. We want to introduce to you some of Croatia's world-renowned places and its rich cultural and natural treasures. In addition, you will also have the opportunity to experience unforgettable moments at quirky museums, beautiful nature as well as incredible festivals and events.

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

Learn more at [www.summer.algebra.university](http://www.summer.algebra.university) and join us!



Dublin

Silicon Valley

München



International Winter School

International Summer School



# Message from the Dean

**Allow me to introduce you to our study programs and digital industry so you can choose your educational institution and career based on relevant facts, and thus make a better decision.**

First of all, I would like to point out that digital technologies are one of the fastest growing areas of 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 sure to have a strong initial tailwind. The same applies to 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 the most creative job in the field of economics that you can choose today. Our Design study programs on Bachelor and Master levels have a strong digital background and are considered to be excellent choice for ceratives who want to start their career in fast growing markets of digital media, gaming industry, marketing, product and interface design. Finally, in our MBA study program, lectured by teachers from

the Kelley School of Business, the fifth best business school in the U.S. which provides its MBA program for more than 100 years, you will find a unique blend of digital technology, business management and leadership. Our study programs are focused on the acquisition of practical and applicable knowledge required by the industry. Acquired knowledge is in many of our study programs additionally confirmed by international IT certification, ensuring high visibility and employability to each alumni. We continually improve our educational programs and teaching approach in line with the labour market changes, technological trends and the needs that the future will create.

I invite you to recognize our specific strengths in the material before you and learn how our educational programs, teachers, experts from the industry and international certifications have managed to form a top professional higher educational institution unsurpassed in Croatian educational system.

At the end of the day, it does make a difference which career you choose and where you create it. Allow us, therefore, to take you towards the digital future.

**Mislav Balković**, Assistant Professor  
University College Dean

# ALUMNI

„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.“



**ŠIME ZAGORAC**,  
Norwegian Cruise Line, Norway –  
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.“



**DANIJEL STUDEN**,  
Amazon Data Services, Ireland –  
System Engineering

„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.“



**MATIJA KOMORČEC**,  
HCL Technologies, Germany –  
Multimedia Computing

„A satisfied user is the best product advertisement, so I cannot hide my pleasure as a student at the Algebra University College. Undoubtedly, I got what I missed as an upgrade. My knowledge and experience have been “sharpened” at the University College because I got some corrections in approaching career activities.“



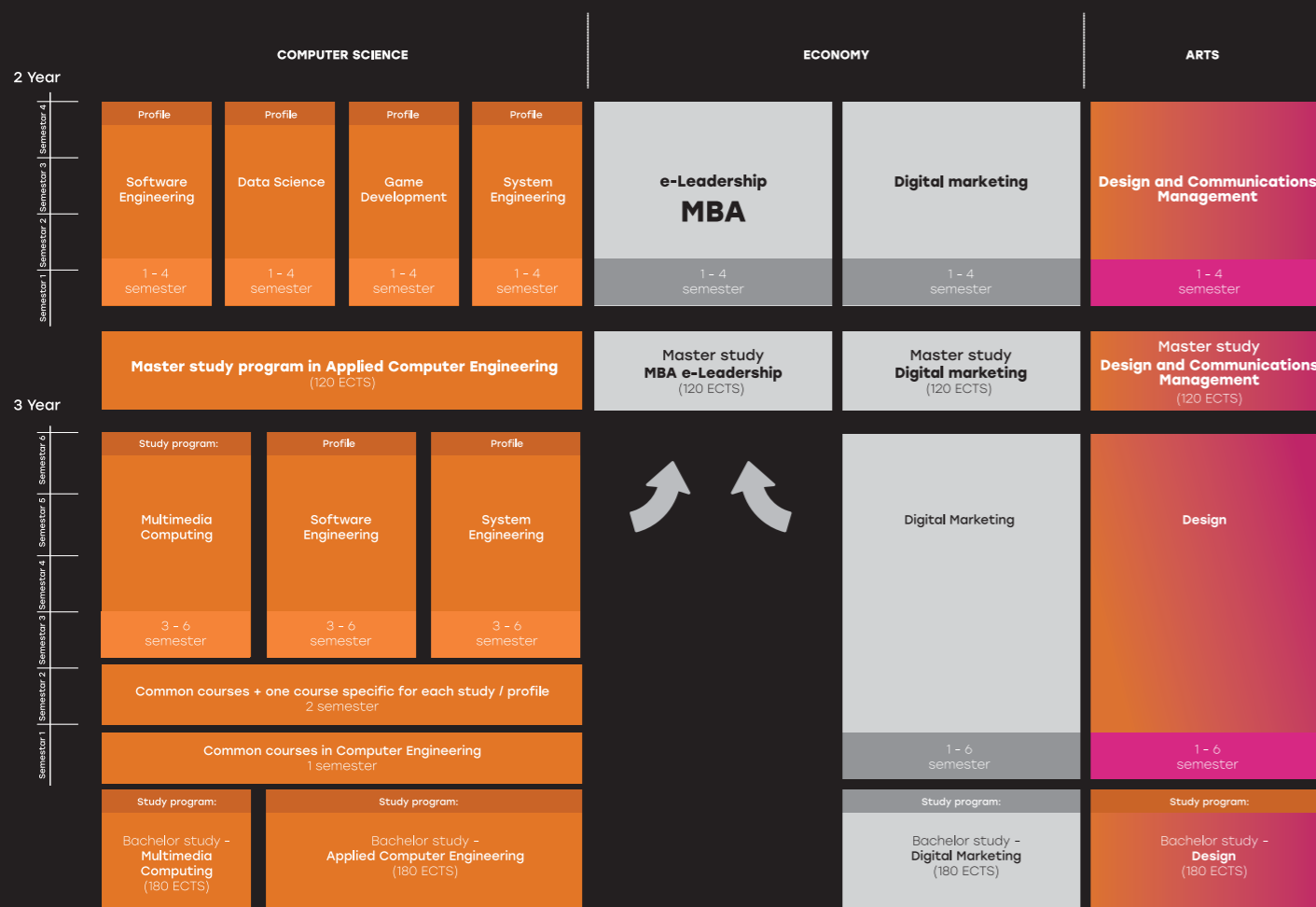
**TOMISLAV LULIĆ**,  
Microsoft MVP for Office 365, Croatia –  
System engineering



# Our study programs

Today we carry out total of 12 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/ international students studying in Zagreb each semester. This means that in specific semester number of English courses may vary. Still all available bachelor level courses delivered in English are listed on our web for each upcoming semester.

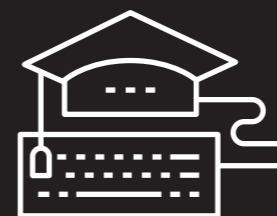


## UNDERGRADUATE PROFESSIONAL PROGRAMS (Bachelor)

- Software Engineering
- System Engineering
- Multimedia Computing
- Digital Marketing
- Visual Communications Design

## GRADUATE PROFESSIONAL PROGRAMS (Master)

- Software Engineering
- System Engineering
- Data Science
- Game Development
- Digital Marketing
- Design and Communications Management
- e-Leadership MBA





# UNDERGRADUATE PROFESSIONAL PROGRAMS

If you are considering enrollment in higher education, you have already made the right decision. Choose one of five studies / specializations in the digital area and thus create a digital future for yourself. During the course of your studies we also provide you with work placement at some of the best employers in Croatia or in the EU. Apart from being able to serve as a foundation for your final thesis, it is also a great opportunity to get to know the future working environment and gain valuable professional acquaintances.

**Software  
Engineering**

**System  
Engineering**

**Multimedia  
Computing**

**Digital  
Marketing**

**Visual  
Communications  
Design**





# UNDERGRADUATE STUDY PROGRAM

## Bachelor of Computer Engineering specialization in SOFTWARE ENGINEERING



### 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 undergraduate study program stands ready to offer you a program tailored and suited to absolutely the latest industry trends and internationally recognized standards. This means that with a diploma from Algebra, you'll be ready to sail into corporate waters in Croatia and abroad almost immediately.

Upon receiving diploma, you'll know everything there is to know about software engineering, you'll 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, Algebra'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 for which demand will grow also in the future.

### 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 160 Microsoft products.



### WHAT ARE THE TAKEAWAYS FROM THE SOFTWARE ENGINEERING STUDY PROGRAM

The three-year undergraduate software engineering study program 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'll 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. You will learn 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 principle 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,

STUDY PROGRAM DURATION:  
**6 semesters (3 years)**

SEMESTER DURATION:  
**15 weeks of active teaching  
+ 5 examination weeks**

TOTAL NUMBER OF ECTS POINTS:  
**180**

managing decipher keys, access control, data classification, monitoring databases and hiding data.

#### COMPLEX DATABASES

Gain understanding of 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 to best 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.

TITLE:  
**B.Comp.Eng. (Bachelor of Computer Engineering, specialization in Software Engineering)**

### PROJECT TEAM WORK

With large and complex business applications being developed, there is usually larger number of experts involved. We'll teach you how to be 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'll 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 for that perfect mobile app are being developed each day. 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'll oversee the installation and functioning of complex systems and take part in strategic planning and quality control.

#### MANAGE APPLICATION DEVELOPMENT PROJECTS

You'll 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.





## Certifications

Certifications available to students within the curriculum:

### 1. ECDL Standard

**2. Microsoft Certified Technical Specialist – MCTS: Microsoft .NET Framework 4, Windows Applications Development**

**3. Microsoft Certified Technical Specialist – MCTS: Microsoft .NET Framework 4, Web Applications i Windows Applications**

**4. Oracle Certified Associate – OCA**

**5. IT SMF – ITIL Foundation**

Now is the best time to decide to study this exciting and highly in-demand branch of computing and become a leader on the digital playground.



**DOMAGOJ KRPAN,**  
student in Multimedia Computing

Domagoj Krpan is a student at the undergraduate study of multimedia computing, and also our student who won a full scholarship for full-time study. When he enrolled as an excellent student he achieved a brilliant result on the entrance exam, and he came to our university with excellent entrance exam results. Today, Domagoj, along with completing his undergraduate studies, works as a software engineer in a very attractive area - computer game industry.

**„A career in game development is demanding as any other career in any other branch of the industry, whether it is IT or not, all depending on the goals we set up and what we want to achieve. Probably the most important difference is that software engineers and digital artists often require high levels of knowledge to make a person as productive as possible, which implies sufficient programming knowledge or sufficient skill in working with selected media in the case of digital artists. Personally, I am delighted with the interdisciplinarity of this industry, as well as numerous examples of newly-formed staff. The result of interdisciplinarity is probably connected to the teamwork, which is an indispensable part of work on projects of this kind.“**

## Lecture Plan

### Undergraduate Professional Program - Software Engineering

#### 1. YEAR

##### FIRST YEAR, SEMESTER 1

Courses	Hours	ECTS
English for IT	45	4
Mathematics I	60	6
Computer Support for Office Administration	45	4
Programming	75	6
Introduction to Computer Networks	60	5
Basics of Digital Electronics	60	5
Kinesiological culture 1	30	

##### FIRST YEAR, SEMESTER 2

Courses	Hours	ECTS
Basics of Business Economy	45	4
Introduction to Databases	60	5
Mathematics II	60	5
Operating systems	60	5
Computer Architecture	60	5
Data Structures and Algorithms	60	6
Kinesiological culture 2	30	

#### 2. YEAR

##### SECOND YEAR, SEMESTER 3

Courses	Hours	ECTS
Probability and Statistics	60	5
Basics of Business Communication	60	5
Authentication Systems and Databases	45	4
Database Development	60	5
Standards in Internet Technology Application	60	5
Object-Oriented Programming	75	6

##### SECOND YEAR, SEMESTER 4

Courses	Hours	ECTS
Project Management	45	4
Security of Information Systems I	60	5
Object-Oriented Programming - lab in .NET environment	60	5
Development of Web Applications	60	6
Java Programming I	75	6
Elective IV	45	4

#### 3. YEAR

##### THIRD YEAR, SEMESTER 5

Courses	Hours	ECTS
Management of Information Systems	45	4
Organization and Management	45	4
Software Engineering	60	5
Accessing Data from Program Code	60	5
Elective V_1	60	6
Elective V_2	60	6

##### THIRD YEAR, SEMESTER 6

Courses	Hours	ECTS
Information Systems in Business Administration	45	4
Interoperability of Information Systems	60	5
Designing and Developing a Complete Application Solution	60	6
Elective VI_1	60	5
Final Thesis	290	10

##### ELECTIVE COURSES, SEMESTER 4

Courses	Hours	ECTS
Project Approach to Applications Development	45	4

##### ELECTIVE COURSES, SEMESTER 5

Courses	Hours	ECTS
Java programming II	60	6
Decision-Making Support Systems	60	6
Application Development for Mobile Devices	60	6

##### ELECTIVE COURSES, SEMESTER 6

Courses	Hours	ECTS
ICT Tools in Project Management	60	5
Java Web Programming	60	5



## UNDERGRADUATE STUDY PROGRAM

# Bachelor of Computer Engineering, specialization in SYSTEMS ENGINEERING

# 2

### WHY STUDY SYSTEM ENGINEERING?

The study program is a perfect choice if you love to think outside the box, come up with solutions to complex problems or simply to create order out of chaos (or is it the other way around?).

Upon receiving diploma, you'll know everything there is to know about design and maintenance of computer systems, complex computer networks and their security. You're bound to become an expert in computer security as well as learn all about project and risk management.

### 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 160 Microsoft products.



### WHAT ARE THE TAKEAWAYS FROM THE SYSTEMS ENGINEERING STUDY PROGRAM?

The three year undergraduate systems engineering study program 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'll 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.

#### UNDERSTANDING COMPUTER NETWORKS

Familiarize yourself with basic concepts, structure and working principles of computer networks and their components.

#### ADMINISTRING DATABASES

Database design is one of the most important aspects of programming. It is a foundation for installation of any data warehouse system. As a system engineer, you will be in charge of their installation and management. Learn all there is to know about DB installation, maintenance and security.

#### OPERATING SYSTEMS ARCHITECTURE

Find out how Windows, Linux and MacOS were built. Learn everything there is to know about processes, threads, synchronization methods, OS programming techniques as well as their implementation and technical design.

#### OPERATING SYSTEM ADMINISTRATION

You will learn the functions and tasks related to system administration (Microsoft, Linux), both locally and remotely. You will know how to manage basic network settings and join a computer to a domain or workgroup.

#### STUDY PROGRAM DURATION:

**6 semesters (3 years)**

#### SEMESTER DURATION:

**15 weeks of active teaching  
+ 5 examination weeks**

#### TOTAL NUMBER OF ECTS POINTS:

**180**

#### TITLE:

**B.Comp.Eng. (Bachelor of Computer Engineering spec in Systems Engineering)**

#### ADVANCED NETWORKING

You will master the implementation of technologies required to work with LAN and WAN networks. You will become proficient in RIP, EIGRP and OSPF protocols and VLAN technology. You will know how to choose and setup appropriate technologies in medium-sized business environments.

#### INFORMATION SYSTEMS IN BUSINESS ADMINISTRATION

Find out how ERP, CMS and CRM systems are implemented and how they work to support business decision making.

#### COMMUNICATION SYSTEMS

Familiarize yourself with systems and solutions used in modern-day business (e-mail servers, IP telephony, collaboration systems...)

#### DATA PROTECTION AND SECURITY

Learn how to design, implement and maintain security protocols and control access to data and information systems.

#### COMPLEX MULTI-USER ENVIRONMENT

You will learn all, from design to implementation, together with maintaining and installation of server and client operating systems on MS Windows and Linux/Unix platforms. Stated systems will be installed on physical or virtualized infrastructure based on Cloud Computing paradigm.

#### 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 tried and tested 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.

#### 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 that are implemented and maintained, there is usually larger number of experts involved. We'll teach you how to be part of that team and how to maximize efficiency.

#### EXAMPLES 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'll 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 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 systems engineering.





## Certifications

Certifications available to students within the curriculum:

### 1. ECDL Standard

### 2. Microsoft Certified Solutions Associate – MCSA

### 3. Red Hat Certified System Administrator – RHCSA

### 4. Cisco Certified Network Administrator – CCNA

### 5. IT SMF – ITIL Foundation

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



**DOMINIK ANTOLKOVIĆ (IBM)**  
Studying at Algebra University College has prepared me well for jobs in open sources technologies.

Dominik Antolković is currently finishing the Systems Engineering study at Algebra University College. He only has a few exams left, but he has already found a job in IBM's Client Innovation Centre in Brno (Czech Republic). Before that, Dominik worked as a junior systems engineer for Linux in the Zagreb-based company ProMDM which works on developing solutions for mobile device management.

**"Today I mostly work with AIX, Unix and Microsoft technologies and operating systems. All vocational courses I had at Algebra provided me with an excellent basis for further professional and expert development. Specifically, in my case, courses related to open source technologies and solutions had the greatest impact as they helped me develop solutions in the field of open code. Thanks to this, I have successfully realised several projects and have got a job in IBM. My advice to future students is to find something they like and be persistent in achieving that goal. Since IT is very flexible, changing your narrow field of interest can be achieved as fast as within a couple of days. Try everything you find interesting and don't be afraid of failure!"**

## Lecture Plan

### Undergraduate Professional Program - System Engineering

#### 1. YEAR

FIRST YEAR, SEMESTER 1		
Courses	Hours	ECTS
English for IT	45	4
Mathematics I	60	6
Computer Support for Office Administration	45	4
Programming	75	6
Introduction to Computer Networks	60	5
Basics of Digital Electronics	60	5
Kinesiological culture 1	30	

FIRST YEAR, SEMESTER 2		
Courses	Hours	ECTS
Basics of Business Economy	45	4
Introduction to Databases	60	5
Mathematics II	60	5
Operating systems	60	5
Computer Architecture	60	5
Computer Networks 2	60	6
Kinesiological culture 2	30	

#### 2. YEAR

SECOND YEAR, SEMESTER 3		
Courses	Hours	ECTS
Probability and Statistics	60	5
Basics of Business Communication	60	5
Authentication Systems and Databases	45	4
Open Source Operating Systems	60	5
Administration of Operating Systems	60	5
Computer Networks 3	75	6

SECOND YEAR, SEMESTER 4		
Courses	Hours	ECTS
Project Management	45	4
Security of Information Systems I	60	5
IT Networks Security	60	5
Operating Systems - Network Infrastructure and Services	60	5
Advanced Administration of Open Source Operating Systems	60	6
Virtualization of IT Infrastructure 1	60	5

#### 3. YEAR

THIRD YEAR, SEMESTER 5		
Courses	Hours	ECTS
Management of Information Systems	45	4
Organization and Management	45	4
Planning of Advanced Infrastructure	60	6
Collaboration Systems	60	6
Elective V_1	60	5
Elective V_2	60	5

THIRD YEAR, SEMESTER 6		
Courses	Hours	ECTS
Information Systems in Business Administration	45	4
Wireless Computer Networks	60	5
System Engineering - Practicum	60	6
Elective VI_1	60	5
Final Thesis	290	10

ELECTIVE COURSES, SEMESTER 5		
Courses	Hours	ECTS
Implementation of Information Systems	60	5
IT infrastructure Virtualization 2	60	5
Security of Information Systems 2	60	5
Security and Recovery of IT Systems	60	5

ELECTIVE COURSES, SEMESTER 6		
Courses	Hours	ECTS
ICT Tools in Project Management	60	5
Implementation of Computing in the Cloud	60	5
Industrial Computer Networks	60	5



## UNDERGRADUATE STUDY PROGRAM

# Bachelor of MULTIMEDIA COMPUTING

# 3

### WHY STUDY MULTIMEDIA COMPUTING?

Do you wish to come on board and become an architect of the digital age?

During the study you will be acquainted and ushered into the world of digital content creation with 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 diploma you'll know how to incorporate media technologies into every project and how to master best practices in creating multimedia content.

You're 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.

### WHAT ARE THE TAKEAWAYS FROM THE MULTIMEDIA COMPUTING STUDY PROGRAM?

The three-year Multimedia Computing Study Program 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'll be studying:

### 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 the study program you will have the possibility to study and obtain internationally recognized certificates, you'll also get a Dreamspark Premium subscription to over 160 Microsoft products and possibility to use video and audio equipment and studio for your projects.

### 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, organisations and businesses.

### DEVELOPMENT OF MULTIMEDIA SYSTEMS

Understand the principles of systems 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'll 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.

STUDY PROGRAM DURATION:  
**6 semesters (3 years)**

SEMESTER DURATION:  
**15 weeks of active teaching  
+ 5 examination weeks**

TOTAL NUMBER OF ECTS POINTS:  
**180**

TITLE:  
**B.Comp.Eng. (Bachelor of Multimedia  
Computing)**

### PRIORITIZATION

Master the delicate skill set required for balancing and prioritizing tasks. Learn to keep 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 sought-after.

#### MANAGER FOR MULTIMEDIA PROJECTS

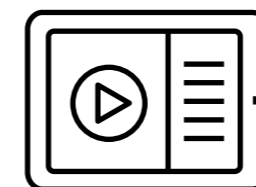
Become a leader of a multidisciplinary team and manage project execution.

#### 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.







## Certifications

Certifications available to students within the curriculum:

### 1. ECDL Standard

### 2. Adobe Certified Associate – (Video Communication with Adobe Premiere Pro)

### 3. Google AdWords Qualified Individual

### 4. Zend Certified PHP Engineer

### 5. Android Certified Application Developer

### 6. IT SMF – ITIL Foundation

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



**Emanuel Miličević,**  
screen designer – Infinum

Nearly 80 employees over 3 offices and 10 years of developing exceptional software. The study in Multimedia Computing is one of the things that allowed Emanuel to work on such a challenging job. As a screen designer in Infinum, he applies a lot of knowledge he had already gained in the first year of the undergraduate study.

**„I had already been enrolled in a study whose programme did not meet my interests, so I realised 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.”**

## Lecture Plan

### Undergraduate Professional Program - Multimedia Computing

#### 1. YEAR

##### FIRST YEAR, SEMESTER 1

Courses	Hours	ECTS
English for IT	45	4
Mathematics I	75	7
Computer Support for Office Administration	60	4
Programming	75	6
Introduction to Computer Networks	60	4
Basics of Digital Electronics	60	5
Kinesiological culture 1	30	

##### FIRST YEAR, SEMESTER 2

Courses	Hours	ECTS
Basics of Business Economy	45	4
Introduction to Databases	60	5
Mathematics II	60	5
Operating systems	60	6
Computer Architecture	60	5
Applied Physics	60	5
Kinesiological culture 2	30	

#### 2. YEAR

##### SECOND YEAR, SEMESTER 3

Courses	Hours	ECTS
Visual Communications Design	60	5
Introduction to Marketing and Media Communications	75	6
Electroacoustic and Professional Audio Equipment	45	4
Standards in Internet Technology Application	60	5
Introduction to Administration of Operating Systems	60	6
Elective III_1	45	4

##### SECOND YEAR, SEMESTER 4

Courses	Hours	ECTS
Project Approach to Development of Video Games	45	4
Web and User Interface Design	60	5
Introduction to Object-Oriented Programming	60	7
Project Management Methodology	45	4
Elective IV_1	60	5
Elective IV_2	60	5

#### 3. YEAR

##### THIRD YEAR, SEMESTER 5

Courses	Hours	ECTS
Basics of Business Communication	75	6
Advanced Web Design	60	5
Introduction to Video Production	45	4
PHP Programming	60	6
Elective V_1	45	4
Elective V_2	60	5

##### THIRD YEAR, SEMESTER 6

Courses	Hours	ECTS
Internet Marketing	45	4
Content Management Systems	45	4
3D Modelling and Texturing	60	5
Elective VI_1	60	5
Final Thesis	120	12

##### ELECTIVE COURSES, SEMESTER 3

Courses	Hours	ECTS
Management of Information Systems	45	4
Multimedia Publishing	45	4

##### ELECTIVE COURSES, SEMESTER 4

Courses	Hours	ECTS
Security of Information Systems	60	5
Introduction to Digital Photography and Processing	60	5
Sound Processing	60	5
Collaboration Systems	38	4

##### ELECTIVE COURSES, SEMESTER 5

Courses	Hours	ECTS
Web Server Technologies	45	4
Vector 2D Animations	60	5
Development of Web Applications	60	5
Security of Electronic Operations	45	4

##### ELECTIVE COURSES, SEMESTER 6

Courses	Hours	ECTS
Postproduction of Digital Video	60	5
Application Development for Mobile Devices	60	5



## UNDERGRADUATE STUDY PROGRAM

# Bachelor of DIGITAL MARKETING

# 4

### WHY STUDY DIGITAL MARKETING?

Take an important step toward your future in the world of digital marketing with the internationally recognized diploma from Algebra University College.

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.

In essence, this is the future of marketing, the most fun and creative work in the field of business today.

Embark on a journey and book a first class ticket on the road to an interesting, dynamic and fulfilling career.

Upon receiving diploma you're bound to be a true guru of digital marketing! You'll master all the ins and outs of the immensely popular digital channels and discover all the known and hidden tricks of the trade. For strategic level of digital marketing, we await you on our master program in digital marketing.

### IN-DEMAND OCCUPATION

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

### NUMEROUS BENEFITS

During the study program 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.



### WHAT ARE THE TAKEAWAYS FROM THE DIGITAL MARKETING STUDY PROGRAM?

The three year undergraduate digital marketing study program 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'll be studying:

#### PSYCHOLOGY AND CONSUMER BEHAVIOUR IN REAL AND DIGITAL ENVIRONMENTS

Human behaviour 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!

#### MANAGING MARKETING CAMPAIGNS

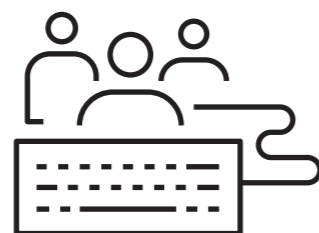
Learn how to effectively connect marketing material with users via social media, advertising networks and search engines.

#### 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.

#### SECURITY, LEGAL AND ETHICAL ASPECTS OF DIGITAL MARKETING PROJECTS

We're often tempted to cross-over into the 'dark side' and utilize shady underhand methods. Learn how not to overstep the boundary and still get through to the end user.



STUDY PROGRAM DURATION:

**6 semesters (3 years)**

SEMESTER DURATION:

**15 weeks of active teaching  
+ 5 examination weeks**

TOTAL NUMBER OF ECTS POINTS:

**180**

#### 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.

#### 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.

#### 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 awaits us in just a couple of years. When you complete the study you will be ready for the real world because you will independently design two large-scale projects within companies or marketing agencies during the study. The first project is a digital marketing strategy for a real company, and the second is the implementation of a marketing solution as part of the final thesis which is linked to your work placement assignment.

#### SALES AND MARKETING TECHNIQUES IN DIGITAL MARKETING

Understanding of marketing in its modern day format.

#### MANAGING DIGITAL PROJECTS

Master the rules of the game and try yourself in app and content development for internet and mobile devices.

TITLE:

**B. Dig. Mark. (Bachelor of Digital Marketing)**

#### MARKET RESEARCH

Hone your skills and familiarize yourself with online tools for market research in order to better understand consumer and its needs.

#### EXAMPLES OF JOBS WE'RE PREPARING YOU FOR

##### EXPERT FOR SOCIAL MEDIA

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

##### EXPERT IN ONLINE PUBLIC RELATIONS

This professional's skill set can literally influence the fate of a business.

##### ONLINE/VIRTUAL BUSINESS MANAGER

With more businesses migrating to the virtual world, so does the need for a professional manager grow with it

##### 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.







## Certifications

Certifications available to students within the curriculum:

### 1. ECDL Standard

2. Google Adwords Individual Qualification (Fundamentals, Search, Display, Video, Mobile, Shopping)

3. Google Analytics Individual Qualification



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.



ANTONIA ŠAKIĆ,  
Student of Digital Marketing

Antonia Šakić is our student on the undergraduate study in Digital Marketing, and she has already started working as an online media planner assistant at Universal McCann (UM).

„I've always been a perfectionist so that makes it hard to achieve satisfaction, whether personal or academic. I found myself in digital marketing and beyond. Setting up, developing and optimizing digital campaigns that we learn about during the study involves sound logic and reasoning I can use in future projects. Additionally, it is great to be able to determine target groups, write a brief and communicate with clients, and those are all things covered by the study. I often hear people complaining about learning something in college and then when they start working they have to learn things from scratch. I didn't want that happening to me, so I immediately started connecting the theory covered during the study with the business world and actual practices. The high-quality exercises at the study also significantly helped with this.“

## Lecture Plan

### Undergraduate Professional Program - Digital Marketing

#### 1. YEAR

##### FIRST YEAR, SEMESTER 1

Courses	Hours	ECTS
Introduction to Marketing and Media Communications	75	7
English	60	6
Mathematics I	60	6
Computer Support for Office Administration	60	4
Basics of Economy	75	7
Kinesiological culture 1	30	

##### FIRST YEAR, SEMESTER 2

Courses	Hours	ECTS
Statistics	75	6
Project Management Methodology	60	6
Customer Behavior	75	7
Visual Communications Design	60	5
Sales and Negotiation	60	6
Kinesiological culture 2	30	

#### 2. YEAR

##### SECOND YEAR, SEMESTER 3

Courses	Hours	ECTS
Market research	75	7
Digital advertising	60	6
Computer tools in visual communication	60	6
Standards in Internet Technology Application	60	5
Public Relations	60	6

##### SECOND YEAR, SEMESTER 4

Courses	Hours	ECTS
Design of Interaction Systems	60	6
Legal regulation and self-regulation	60	6
Interaction analysis in digital marketing	60	6
Marketing on Search engines and Advertising Networks	60	6
Social Media and Social Networks	75	6

#### 3. YEAR

##### THIRD YEAR, SEMESTER 5

Courses	Hours	ECTS
E-commerce - Customer Relationship Management	60	6
Content Marketing	60	6
Integrated marketing communication	60	6
Elective V_1	60	6
Project: Project in Cooperation with the Industry - Situation Analysis with Digital Marketing Approach Plan	60	6

##### THIRD YEAR, SEMESTER 6

Courses	Hours	ECTS
E-business - Integrated commercial projects	60	6
Entrepreneurship	60	6
Integrated Marketing	60	6
Elective VI_1	60	6
Final Paper: Project in Cooperation with the Industry - Digital Marketing Strategy		6

##### ELECTIVE COURSES, SEMESTER 5

Courses	Hours	ECTS
Creativity and creative expression	60	6
Psychology of User Experience	60	6
Digital Projects Development and Team Management	60	6

##### ELECTIVE COURSES, SEMESTER 6

Courses	Hours	ECTS
Development and Management of Multimedia Contents	60	6
Organization of digital agencies	60	6
Psychology In Marketing Communications	60	6

## UNDERGRADUATE STUDY PROGRAM

# Bachelor of VISUAL COMMUNICATIONS DESIGN 5

### WHY STUDY VISUAL COMMUNICATIONS 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... Explore design as part of the marketing campaigns and get involved in the projects for a wide range of 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 at the receiving part 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

All the students have access to the Dreamspark Premium subscription that includes over 160 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 THE VISUAL COMMUNICATIONS DESIGN STUDY PROGRAM?

The three-year undergraduate Visual Communications Design course aims to equip you with skills and knowledge in order to prepare you for a career in design studios, creative agencies, production studios or marketing departments in different companies. The study program is designed taking into account the latest findings 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 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 course.

#### TYPOGRAPHY

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

#### PHOTOGRAPHY

You will learn how to create a good photo, more about camera features, how to make a photo for promotional purposes or how to fine-tune the lighting using complex photographic equipment.

STUDY PROGRAM DURATION:  
**6 semesters (3 years)**

SEMESTER DURATION:  
**15 weeks of active teaching  
+ 5 examination weeks**

TOTAL NUMBER OF ECTS POINTS:  
**180**

TITLE:

**Bacc. Art. (Bachelor of Visual  
Communication Design)**

### INTERACTIVE SYSTEMS DESIGN

You will learn how to analyze the interaction between man 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. Strong insight into newest digital trends. Highly in demand and not so easy to find experts.

#### WEB DESIGNER

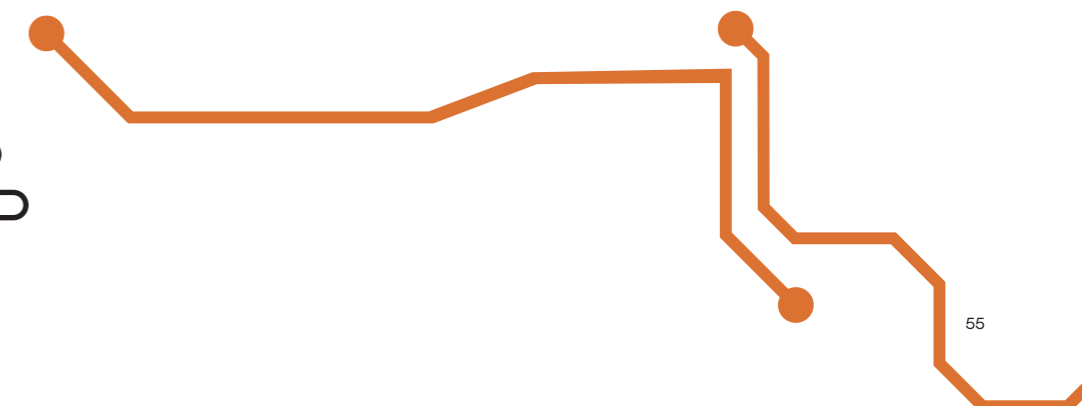
Every web project needs a good web designer to put ideas and content into great shape. But besides that, there's so much more to learn in order to become a web designer of a special class.

#### DIGITAL PHOTOGRAPHY AND VIDEO EXPERT

There's 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.







## Certifications

Certifications available to students within the curriculum:

**1. Adobe Certified Associate - Photoshop**

**2. Adobe Certified Associate - Illustrator**



**MARTA PUNTIJAR,**  
Graphic Designer



„The study program in Visual Communications Design has opened many doors of the world in graphic design to me and enabled me to find employment without much effort. It also helped me start my own business, studio “shushe”.“



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

**D**uring the course of your studies, you will 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 consumers needs and behavior, setting the communication goals and all the way to specifics of various media of visual communication and digital interaction.

## Lecture Plan

### Undergraduate Professional Program - Visual Communications Design

#### 1. YEAR

FIRST YEAR, SEMESTER 1		
Courses	Hours	ECTS
Drawing I - Receptive and Perceptual Drawing	45	4
English Language I	30	3
Informatics - Computer Application	30	3
Marketing I	30	3
History of Communication Design	30	3
Psychology of Communication I	30	2
Contemporary Society I	30	3
Teamwork and Conflict Management	30	3
Visual Design I - Artistic Thinking	45	4
Elective - Drawing and Illustration - Art Exercises I	30	2
Elective - Creative Writing	30	3

FIRST YEAR, SEMESTER 2		
Courses	Hours	ECTS
Drawing II - Conceptual Drawing	45	4
English Language II	30	2
Creative Process	45	3
Marketing II	30	3
Research Methods - Quantitative	30	3
Psychology of Communication II	30	3
Contemporary Society II	30	2
Typography I	30	3
Visual Design II - DTP	45	4
Elective - Drawing and Illustration - Art Exercises II	30	2
Elective - Economy of Entrepreneurship	30	3
Elective - Advertising Concepts	30	3
Elective - Graphic Exercises II	30	2

#### 2. YEAR

SECOND YEAR, SEMESTER 3		
Courses	Hours	ECTS
Drawing III - Digital Illustration	30	3
DTP	30	2
English Language III	30	2
Film/Video/TV - Introduction to Video Production	30	3
Photography I	30	3
Research Methods - Qualitative	30	2
Typography II	30	3
Print and Color	30	2
Visual Design III - Logotypes and Book of Standards	45	4
Web and Screen Design I - Interactive Systems Design	45	4
Elective - Drawing and Illustration - Art Exercises III	30	2
Elective - Advertising Concepts II	30	3
Elective - Drawing - Art Exercises/ Illustrations I	30	2

SECOND YEAR, SEMESTER 4		
Courses	Hours	ECTS
3D Design I	30	3
Drawing IV - Digital Illustration	30	3
English Language IV	30	2
Film/Video/TV - Video Production and Post-Production	30	3
Photography II	30	3
Culture and Aesthetics of Market Communications I	30	3
Multimedia	30	3
Visual Design IV - Visual Identity and Web and Screen Design II - Standards in the Application of Internet Technology	45	4
Elective - Drawing and Illustration - Art Exercises IV	30	2
Elective - Communication Media III - Print Media	30	3
Elective - Drawing - Art Exercises/ Illustrations II	30	2

#### 3. YEAR

THIRD YEAR, SEMESTER 5		
Courses	Hours	ECTS
3D Design II	30	3
Animated Graphics	30	3
Film/Video/TV - Post-Production	30	3
Photography III	30	3
Practicum	90	4
Management of Market Communication Design Processes I	30	3
Visual Design V - Packaging	45	4
Web and Screen Design III - Web Design and User Interface Design	45	4
Multimedia Publishing	30	3
Drawing V - Digital Illustration	30	3
Elective - Brand Management I	30	3
Elective - Fairs and market Events management	30	3

THIRD YEAR, SEMESTER 6		
Courses	Hours	ECTS
City Design - Public Communication Design	30	3
Presentation Techniques	30	2
Management of Market Communication Design Processes II	30	3
Visual Design VI - Individual Project	45	4
Web and Screen Design IV - Application Interfaces	45	4
Final Thesis	150	12
Interaction Design	30	2
Elective - Brand Management II	30	2
Elective - Direct Marketing	30	2

# GRADUATE PROFESSIONAL PROGRAMS

Choose how you want to upgrade the foundations created at the undergraduate study or boost your leadership career at our MBA study! Choose a study program / specialisation that you are most interested in and release your potential.

Our graduate studies are taught fully in English.

Software  
Engineering

System  
Engineering

Data Science

Game  
Development

Design and  
Communications  
Management

Digital  
Marketing

e-Leadership  
MBA



# GRADUATE PROFESSIONAL STUDY PROGRAM in Applied Computer Engineering – Specialization in SOFTWARE ENGINEERING



## WHY STUDY SOFTWARE ENGINEERING?

Our software engineering study program is one of four specializations in the applied computer engineering professional graduate (master) program.

The time has come to decide on how you wish to build on your undergraduate 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.

## 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 program 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.



Upon receiving diploma, you'll 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'll be acquainted with computer cryptography, e-commerce, robotics, Internet of Things and computer game development.

## WHAT ARE THE TAKEAWAYS FROM THE GRADUATE COMPUTER ENGINEERING STUDY PROGRAM?

Graduate 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 on to you. 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 more easily solve complex problems and 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.

### STUDY PROGRAM DURATION:

**4 semesters (2 years)**

### SEMESTER DURATION:

**15 weeks of active teaching  
+ 5 examination weeks**

### TOTAL NUMBER OF ECTS POINTS:

**120**

## INTERNET OF THINGS AND ROBOTICS

Learn how to independently develop an IoT product of service. You will be immersed in a world of computer robotics, 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 possible levels.

## BEST PRACTISE

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 realise and finance it in appropriate business and organisational conditions. Like many of our students, you

### TITLE ACQUIRED:

**P.M.Comp.Eng. (Professional Master of Computer Engineering with specialization in Software Engineering)**

might already start your own business during the study.

## EXAMPLES OF JOBS WE'RE PREPARING YOU FOR SOFTWARE ENGINEER

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

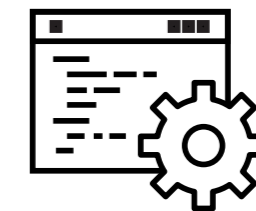
Whether it's a specialist for .NET or Java, your skills will definitely fit the job description.

## 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.





## Certifications

Certifications available to students within the curriculum:

### 1. ITIL Foundation

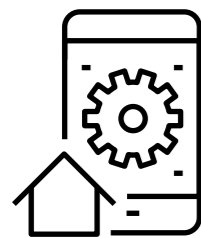
### 2. Android™ ATC – Android Certified Application Engineer



**VEDRAN MANDIĆ,**  
Mogy startup co-funder and CTO

Vedran is currently building 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.

**„The study was what 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 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 programme enabled me to carefully plan my activities and studying, and prepare for exams.“**



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

## Lecture Plan

### Graduate Professional Program - Software Engineering

#### 1. YEAR

##### FIRST YEAR, SEMESTER 1

Courses	Hours	ECTS
Entrepreneurship	60	5
Conflict Handling and Negotiations	45	4
Elective I_1	60	6
Software Development for Industrial and Mobile Robotics	60	5
Advanced Development of User Applications for Mobile Devices	60	5
Computer Games Development	45	5

##### FIRST YEAR, SEMESTER 2

Courses	Hours	ECTS
Creativity and Critical Thinking	45	3
Elective II_1	60	6
Advanced Application Development Based on Development Templates	60	6
Internet of things	60	6
Rapid Development of Java Applications Using Programming Frameworks	60	5
Cryptography	45	4

#### 2. YEAR

##### SECOND YEAR, SEMESTER 3

Courses	Hours	ECTS
Management of Information Services	45	3
Elective III_1	60	6
Advanced Programming Paradigms	45	5
Advanced Information Systems Interoperability	60	5
Advanced Client - Side Scripting	60	6
Development of 3D Games	60	5

##### SECOND YEAR, SEMESTER 4

Courses	Hours	ECTS
Graduation Thesis		30

##### ELECTIVE COURSES, SEMESTER 1

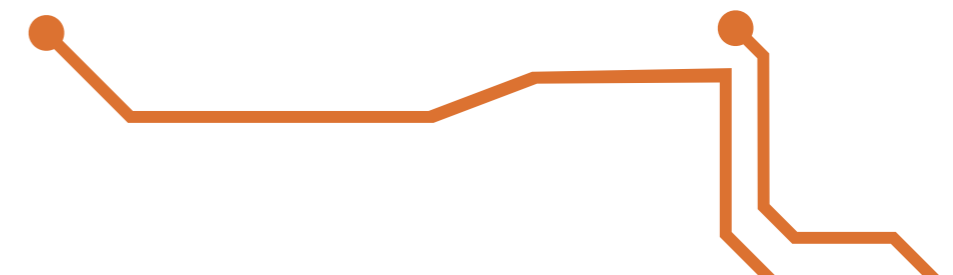
Elective courses	Hours	ECTS
Data Warehouses and Business Intelligence	60	6

##### ELECTIVE COURSES, SEMESTER 2

Elective courses	Hours	ECTS
Discovering Knowledge from Databases	60	6
Management of Innovation	60	6

##### ELECTIVE COURSES, SEMESTER 3

Elective courses	Hours	ECTS
Business Process Modelling	60	6
E-business	45	3





## GRADUATE PROFESSIONAL STUDY PROGRAM

# in Applied Computer Engineering – Specialization in SYSTEMS ENGINEERING

# 2

### WHY STUDY SYSTEMS ENGINEERING?

If you opt for this track, you will learn about advanced networking technologies, computer security, forensics and penetration tests, design and development of computer infrastructure based on Cloud computing, and high-availability computer systems.

The Study Program is a perfect choice if you love to think outside the box, come up with solutions to complex problems or simply to create order out of chaos (or is it the other way around?).

### 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, boosted by Cloud Computing, and growing focus on IT security.

### NUMEROUS BENEFITS

During the study program 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.

Upon receiving diploma, you'll know everything there is to know about your favorite field of systems engineering. You'll be able to plan and implement IT solutions and systems that ensure business continuity, manage complex computer networks and manage identity and privacy protection as well as systems security and forensics.

You'll have the answer to all queries from big and small clients.

### WHAT ARE THE TAKEAWAYS FROM THE GRADUATE COMPUTER ENGINEERING STUDY PROGRAM?

Graduate 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 on to you. Here is a snapshot of some of them:

#### DEVELOPMENT OF COMPLEX COMPUTER NETWORKS

Master all phases from planning, building and maintenance of complex computer networks based on fiber optics, cable and WLAN communication types.

#### ANALYSIS OF BUSINESS REQUESTS

Strengthen your business request analysis skills and learn to identify problems and most importantly how to solve them.

#### COMPUTER FORENSICS

Become a true computer security expert in a corporate environment utilizing computer forensic methods.

#### STUDY PROGRAM DURATION:

**4 semesters (2 years)**

#### SEMESTER DURATION:

**15 weeks of active teaching  
+ 5 examination weeks**

#### TOTAL NUMBER OF ECTS POINTS:

**120**

#### TITLE ACQUIRED:

**P.M.Comp.Eng. (Professional Master of Computer Engineering with specialization in Systems Engineering)**

### SYSTEMS ARCHITECTURE ANALYSIS

Learn how to appreciate modern operational systems and virtual surroundings utilizing various methods.

### PREVENTION OF SECURITY THREATS

Find out how to set up an internal organizational unit for analysis and prevention of security threats within IT systems.

### IDENTITY MANAGEMENT

This is a very important element in protecting access to key resources and infrastructure. You'll know how to manage user identities and assess their effectiveness.

### BEST PRACTICE

Learn how to deliver innovative solutions through utilizing critical analysis and understanding of current trends and know-how.

### HIGH AVAILABILITY/ERROR RECOVERY

You will learn how to develop a high availability infrastructure compatible with relevant standards (ISO 27001/27002) and how to use most popular high availability systems and applications in IT.

### EXAMPLES OF JOBS WE'RE PREPARING YOU FOR SPECIALIST FOR COMPUTER NETWORKS

Duties include planning, design, implementation, administration and maintenance of computer networks system.

### SYSTEMS ADMINISTRATOR

'Sisadmin' maintains computer systems,

especially those with multiple clients such as servers and also knows a thing or two about computer databases.

### ENGINEER FOR IMPLEMENTATION OF E-BUSINESS SYSTEMS

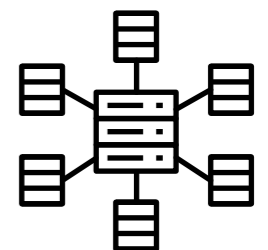
You'll be working on implementation of business information systems and systems support for business decision making.

### SECURITY INCIDENTS MANAGER

You'll be setting up internal organizational structures and procedures for the implementation of IT security policies.

### SYSTEMS SUPPORT MANAGER

A wide array of duties and responsibilities connected with effective and stable systems operations awaits you.





## Certifications

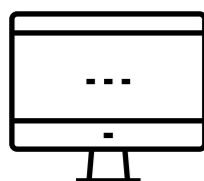
Certifications available to students within the curriculum:

### 1. ITIL Foundation

### 2. Cisco CCNP – Cisco Certified Networking Professional



**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.**



**ROLAND LIPOŠINOVIĆ,**  
Senior expert in information technology – HAKOM

**R**oland has loved computers all his life, and from the moment he finished high school he knew that he would have to invest in his education in order to build a career in computing. After completing several education programmes and obtaining certificates, he decided to enroll into the study. During the study he first worked as a systems administrator in Erste insurance and then moved to HAKOM – Croatian Regulatory Authority for Network Industries where he works as a senior expert in IT.

**„After completing the undergraduate study I didn't want to quit half way. But the main reason to continue onto the graduate study was the study programme. The knowledge I acquired at the graduate study significantly helped me advance professionally and achieve a change on my business plan which led me to my current position.“**

## Lecture Plan

### Graduate Professional Program - System Engineering

#### 1. YEAR

##### FIRST YEAR, SEMESTER 1

Courses	Hours	ECTS
Entrepreneurship	60	5
Negotiation and Conflict Resolution	45	4
Elective I_1	60	6
Advanced Routing and Switching	60	6
Incidents Management in IT Systems	60	6
Data Storage Systems	45	3

##### FIRST YEAR, SEMESTER 2

Courses	Hours	ECTS
Creativity and Critical Thinking	45	3
Elective II_1	60	6
Penetration Testing	60	6
Advanced Routing and Switching 2	60	6
Advanced scripting	60	5
Development Trends in IT Infrastructure	45	4

#### 2. YEAR

##### SECOND YEAR, SEMESTER 3

Courses	Hours	ECTS
Management of Information Services	45	3
Elective III_1	60	6
Advanced Protocols for Service Providers	60	6
Redundancy of IT Services and Applications	60	6
Computer Forensics	60	6
Discovering and troubleshooting problems in IT systems	45	3

##### SECOND YEAR, SEMESTER 4

Courses	Hours	ECTS
Graduation Thesis		30

##### ELECTIVE COURSES, SEMESTER 1

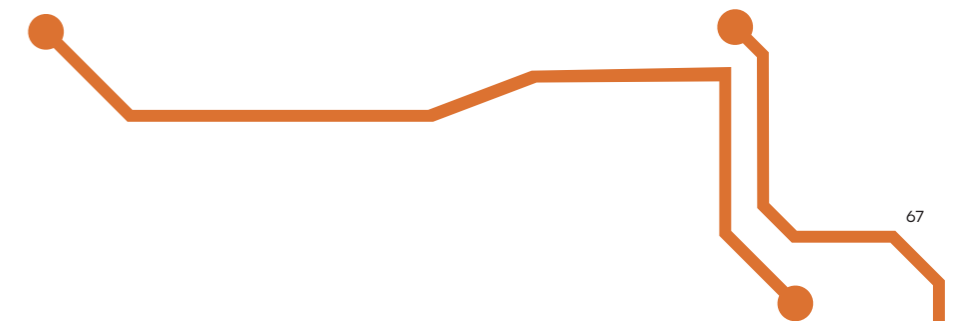
Elective courses	Hours	ECTS
Managing Quality in IT Projects	60	6
Voice over Internet Protocol	60	6

##### ELECTIVE COURSES, SEMESTER 2

Elective courses	Hours	ECTS
Identity Management	60	6
Management of Innovation	60	6

##### ELECTIVE COURSES, SEMESTER 3

Elective courses	Hours	ECTS
Quality of Network Services	60	6
Implementation of Wireless Local Area Networks	60	6





## GRADUATE PROFESSIONAL STUDY PROGRAM

# in Applied Computer Engineering – Specialization in GAME DEVELOPMENT

# 3

### WHY STUDY GAME DEVELOPMENT?

We know that you yearn for some extra imagination. We're sure however, that you have brilliant ideas. You just need those extra few skills to turn your imagination into amazing digital adventures (or at least really cool ways to kill time). The computer games development study program will give you just that. If you love gaming, but if you also find yourself wondering that during game play you are thinking of refining or improving some elements of it, then this is the right 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 diploma, you'll 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.

### WHAT ARE THE TAKEAWAYS FROM THE GRADUATE GAME DEVELOPMENT STUDY PROGRAM?

The graduate study program allows you to further perfect the skills in the field you love. We will transfer skills and modern-day knowledge that employers demand on to you. Here is a snapshot of some of them:

#### 3D MODELS

Learn 3D topology and different modelling and

#### 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.



texturing techniques. Create entire scenes and evaluate models and textures and the way they perform in game environment.

#### 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.

#### PHYSICS APPLIED TO GAMEING

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 PRACTISE

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

#### EXAMPLES OF JOBS WE'RE PREPARING YOU FOR COMPUTER GAME DEVELOPMENT BASED ON VR AND AUGMENTED REALITY

These techniques have been popular for some time and are being perfected almost daily.

#### DEVELOPMENT OF 2D AND 3D GAMES

Perhaps you'll take part in developing the latest international hit game!

#### GAME DEVELOPMENT BASED ON NARATION

Team work based on interesting, dynamic and very challenging assignments.

#### EFFECTS GURU FOR GAMES

Making fire, smoke, wind, explosions, rain, hail, water and other effect was never easy, but you will master the elements and create effects that will last forever.

STUDY PROGRAM DURATION:

**4 semesters (2 years)**

SEMESTER DURATION:

**15 weeks of active teaching  
+ 5 examination weeks**

TOTAL NUMBER OF ECTS POINTS:

**120**

TITLE ACQUIRED:

**P.M.Comp.Eng. (Professional Master of Applied Computer Engineering with specialization in Game Development)**

## Lecture plan

### 1. YEAR

#### FIRST YEAR, SEMESTER 1

Courses	Hours	ECTS
Entrepreneurship	60	5
Developing Computer Game Scenario	60	5
Negotiation and Conflict Resolution	45	4
Computer Games Development	60	5
Physical concepts in Computer Games	45	5
Elective I	60	6

#### FIRST YEAR, SEMESTER 2

Courses	Hours	ECTS
Creativity and Critical Thinking	45	3
Computer Game Planning	60	5
3D Modeling and Texturing in Computer Games	45	4
Advanced development of computer games	60	6
Development of Multiplayer games	60	6
Elective II	60	6

### 2. YEAR

#### SECOND YEAR, SEMESTER 3

Courses	Hours	ECTS
Management of Information Services	45	3
Development of 3D Games	60	6
Practice: Development of computer game	60	6
Application of virtual and expanded reality	60	5
Effects in computer games	45	4
Elective III	60	6

#### SECOND YEAR, SEMESTER 4

Courses	Hours	ECTS
Graduation Thesis		30

#### ELECTIVE COURSES, SEMESTER 1

Elective courses	Hours	ECTS
Disruptive technologies	60	6
Management of Innovation	60	6
Computer Games Structure	60	6

#### ELECTIVE COURSES, SEMESTER 2

Elective courses	Hours	ECTS
Marketing of computer games	60	6
E-business	60	6
Internet of things	60	6

#### ELECTIVE COURSES, SEMESTER 3

Elective courses	Hours	ECTS
Ergonomics and Design of Software Applications	60	6
Monetization of computer games	60	6
Data Warehouses and Business Intelligence	60	6

## Certifications

Certifications available to students within the curriculum:

1. IT SMF – ITIL Foundation
2. Unity – Unity Certified Developer



## GRADUATE PROFESSIONAL STUDY PROGRAM

# in Applied Computer Engineering – Specialization in DATA SCIENCE

# 4

### WHY STUDY DATA SCIENCE?

The Data science specialization is one of four professional graduate programs in the field of applied computer engineering. Together with compulsory program courses that deal with data analysis, you'll be able to choose electives in particular fields that interest you such as machine learning, statistical analysis, data visualization, domain knowledge and data storage. Apart from the fundamentals, you will learn how to use those skills to create a "story" 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 diploma, you'll become a true specialist for data science. This is an inter-disciplinary field, which the industry calls the 'Fourth Paradigm' of science. You'll learn how to analyze and process large amounts of data and to extrapolate information required for sound business operations.

### WHAT ARE THE TAKEAWAYS FROM THE DATA SCIENCE GRADUATE COMPUTER ENGINEERING STUDY PROGRAM?

Graduate studies allow you to further perfect your know-how of your favorite field. We'll transfer the latest industry trends, insights and

### 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.



skills that employers demand on to you. Here is a snapshot of some of them:

### EVALUATING COMPLEX PROBLEMS

You'll hone your skills for using applied mathematics and information theory for analyzing and evaluating complex and insufficiently defined problems.

### WORK WITH DATA

You'll learn how to apply appropriate methodology, recommend and select best solutions for queries in data integration, normalization and discretization.

### DATA PRIVACY RIGHTS

You'll 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.

### CLOUD ANALYTICS

Understand its advantages and disadvantages as well how to apply cloud analytics to solving business problems.

### BIG DATA SETS

Find out how to rate product quality through analyzing big data chunks and re-evaluating its potential.

### IMPACT OF DISRUPTIVE TECHNOLOGIES

Learn how to critically analyze the impact of disruptive technologies on the business environment and learn to spot new emerging ones.

### CENTRAL TENDENCY MEASURES

Understand, interpret and determine basic measures of central tendency and dispersion.

### 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.

STUDY PROGRAM DURATION:  
**4 semesters (2 years)**

SEMESTER DURATION:  
**15 weeks of active teaching  
+ 5 examination weeks**

TOTAL NUMBER OF ECTS POINTS:  
**120**

TITLE ACQUIRED:  
**P.M.Comp.Eng. (Professional Master  
of Computer Engineering with  
specialization in Data Science)**

### SPECIALIST FOR BUSINESS INTELLIGENCE (BI)

You'll 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.

## Lecture plan

### 1. YEAR

FIRST YEAR, SEMESTER 1		
Courses	Hours	ECTS
Entrepreneurship	60	5
Negotiation and Conflict Resolution	45	4
Elective I_1	60	6
Data Preparation	60	6
Data Warehouses and Business Intelligence	60	6
Introduction to Data Science	45	3

FIRST YEAR, SEMESTER 2		
Courses	Hours	ECTS
Creativity and Critical Thinking	45	3
Elective II_1	60	6
Quantitative methods of data	60	6
Social Network Analysis	60	6
Security, privacy and ethics of digital data	60	5
Machine Learning Methods	45	4

### 2. YEAR

SECOND YEAR, SEMESTER 3		
Courses	Hours	ECTS
Management of Information Services	45	3
Elective III_1	60	6
Affective Computing	60	6
Analytical techniques based on large data sets	60	6
Advanced Machine Learning Methods	60	6
Visualisation and analytical software tools	45	3

SECOND YEAR, SEMESTER 4		
Courses	Hours	ECTS
Graduation Thesis		30

ELECTIVE COURSES, SEMESTER 1		
Elective courses	Hours	ECTS
Disruptive technologies	60	6
Managing Quality in IT Projects	60	6

ELECTIVE COURSES, SEMESTER 2		
Elective courses	Hours	ECTS
Internet of things	60	6
Management of Innovation	60	6

ELECTIVE COURSES, SEMESTER 3		
Elective courses	Hours	ECTS
Structured Analytical Techniques	60	6
Cloud Analysis	60	6

## Certifications

Certifications available to students within the curriculum:

1. IT SMF – ITIL Foundation
2. Introduction to Programming Using Python
3. Tableau Desktop Qualified Associate





# PROFESSIONAL GRADUATE STUDY PROGRAM IN DIGITAL MARKETING

# 5

## WHY STUDY DIGITAL MARKETING?

Continue to hone your skills in the field of digital marketing. The two-year graduate Study Program will focus on the 'broader picture' and will prepare you to think strategically and outside the box in the context of marketing, using insights into data (data driven marketing).

There is a carefully selected compilation of courses and applied knowledge outcomes waiting for you, which means you'll be able to quickly find your feet in a future role.

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 your well-deserved diploma, you will know everything about digital marketing on the strategic and tactical levels – from analyzing social networks to pushing the boundaries of new and existing solutions

## 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 program 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.

in digital marketing through research and experiments. You will be able to make decisions based on Data Driven Marketing, use Design Thinking concept in making strategic business and everyday decisions, and implement innovation and entrepreneurship projects. Those who master these skills today will conquer the market tomorrow.

## WHAT ARE THE TAKEAWAYS FROM THE GRADUATE DIGITAL MARKETING STUDY PROGRAM

Graduate 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 on to you. 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 digital marketing.

### BUSINESS ANALYSIS

Hone your 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.

STUDY PROGRAM DURATION:  
**4 semesters (2 years)**

SEMESTER DURATION:  
**15 weeks of active teaching  
+ 5 examination weeks**

TOTAL NUMBER OF ECTS POINTS:  
**120**

TITLE ACQUIRED:  
**P.M.Dig.Mark. (Professional Master of  
Digital Marketing)**

## BIG DATA IN MARKETING

Learn how to use the marketing potential of big data sets.

## QUANTITATIVE ANALYSIS

Master the application of quantitative analysis and modeling in marketing research.

## MARKET RESEARCH

Understand the reputation and versatility of online tools that help plan and conduct market research.

## LEADING A TEAM

Master the skills required for managing and organizing teams of professionals responsible for digital marketing.

## MANAGING CAMPAIGNS

Hone your planning and management skills of digital campaigns.

## 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 strengthening at breakneck speed.

### SPECIALIST FOR SOCIAL NETWORKING ANALYSIS

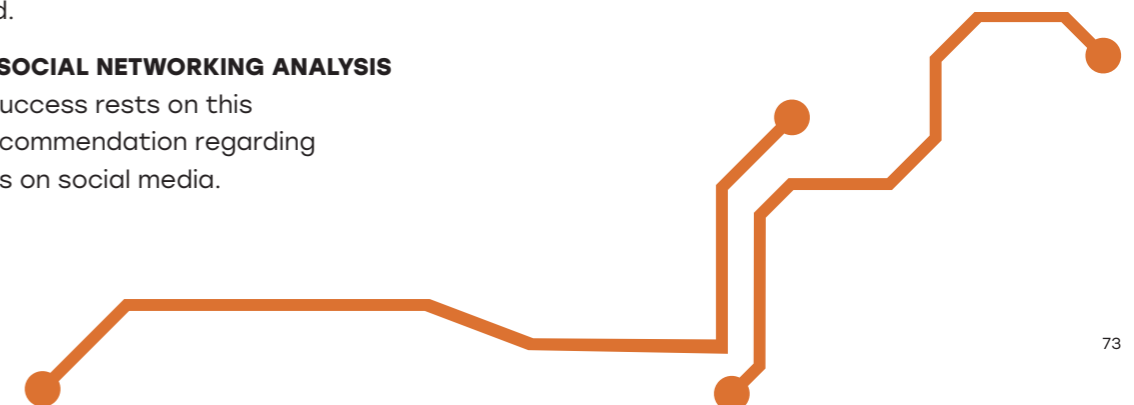
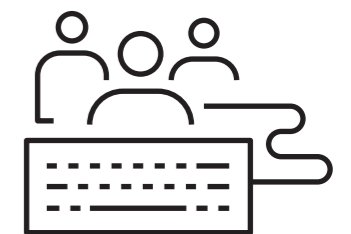
The balance of success rests on this professional's recommendation regarding digital campaigns on social media.

## SPECIALIST FOR DATA VISUALIZATION

You'll 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.



# Lecture plan

## 1. YEAR

### FIRST YEAR, SEMESTER 1

Courses	Hours	ECTS
Brand and reputation management	60	6
Disruptive technologies	60	4
Strategic management of digital campaigns	60	6
Digital data in marketing	60	5
Behavioral economics	60	4
Design thinking 1: creativity and critical thinking	60	5

### FIRST YEAR, SEMESTER 2

Courses	Hours	ECTS
Security, privacy and ethics of digital data	60	5
International Marketing	60	5
Quantitative methods in marketing	60	6
Application of game theory in marketing	60	4
Marketing strategies based on data sets	60	5
Network Analysis and social CRM	60	5

## 2. YEAR

### SECOND YEAR, SEMESTER 3

Courses	Hours	ECTS
Innovation, product and service	60	5
Digital Transformation	60	7
Communication and presentation skills	60	6
Elective module III	60	6

### SECOND YEAR, SEMESTAR 4

Courses	Hours	ECTS
Graduation Thesis		30

### ELECTIVE MARKETING MODULE, SEMESTER 3

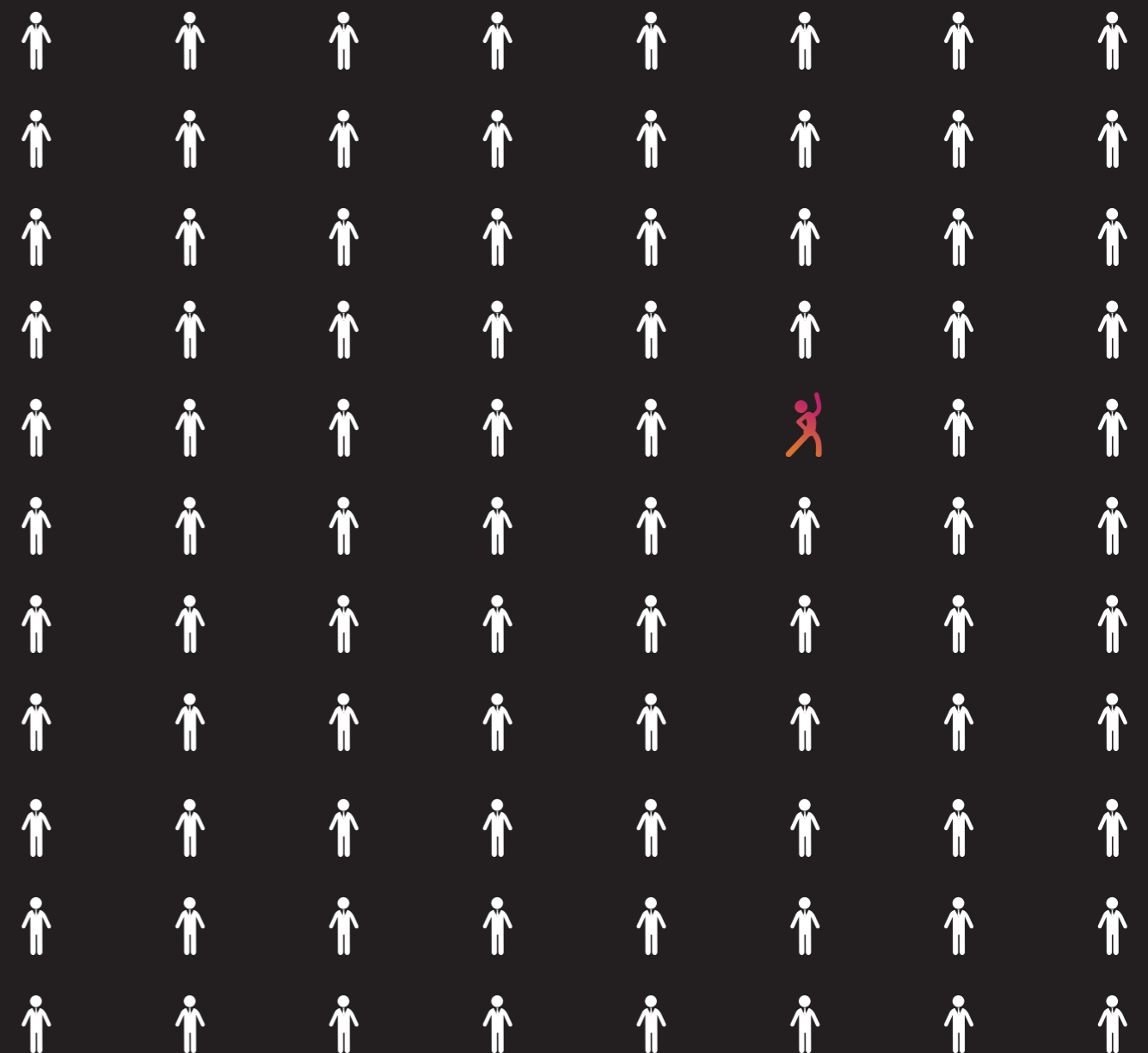
Elective courses	Hours	ECTS
Interest organization marketing	60	6
Visualization software tools in marketing	60	6

### ELECTIVE SOFTWARE MODULE, SEMESTER 3

Elective courses	Hours	ECTS
Analytical software tools in marketing	60	6
Alternative marketing channels and future technology	60	6



Upon receiving your well deserved diploma, you will know everything about 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 big data.





## GRADUATE PROFESSIONAL STUDY PROGRAM

# Design & Communications Management

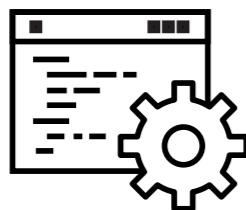


### WHY STUDY DESIGN & COMMUNICATIONS MANAGEMENT?

We live in a time inspired by technology which faces 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 professional graduate study program in Design & Communications Management prepares you exactly for this kind of situations. The knowledge you will acquire will help you to 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 program. 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, 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 program, you will be able to manage marketing campaigns and make important business decisions.



### WHAT ARE THE TAKEAWAYS FROM THE DESIGN AND COMMUNICATIONS MANAGEMENT STUDY PROGRAM?

The two-year graduate Creative Market Communications Management 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 program 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 program 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

STUDY PROGRAM DURATION:  
**4 semesters (2 years)**

SEMESTER DURATION:  
**15 weeks of active teaching  
+ 5 examination weeks**

TOTAL NUMBER OF ECTS POINTS:  
**120**

TITLE ACQUIRED:

**P.M.Art. (Professional Master of Creative Market Communications Management)**

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. Deeply consider 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.



## Certifications

Certifications available to students within the curriculum:

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



**ANITA PERKOČIĆ,**  
Terra Media, Zagreb – Marketing/  
Purchasing

„This study has given me a great chance to work along some of the biggest shots in our industry. Their expertise gave me knowledge and tools needed to set up better 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“

### 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

The wider picture is what drives you. Your contribution to the organization consists in the understanding of trends, in a profound analysis of all aspects of business and ultimately in a courageous, original vision of development which you will be able to discuss and recommend to decision-makers. Your high-quality preparation will often be crucial when making very important business decisions.

## Lecture Plan

### Graduate Professional Program - Design & Communications Management

#### 1. YEAR

##### FIRST YEAR, SEMESTER 1

Courses	Hours	ECTS
Creative Tools I - Design of Presentation	30	4
Integrated Marketing Communication	45	6
Creative Economy	30	3
Practicum I	15	4
Idea Management in Market Communications	45	6
Process Management in Market Communications	30	4
Elective I		

##### FIRST YEAR, SEMESTER 2

Courses	Hours	ECTS
Creative Tools II - User Interface Design	30	4
Branding - Corporate Identity	45	6
Leadership	30	4
Consumer Behavior	30	4
Practicum II	105	4
Creative Methods and Techniques in Market Communications	45	6
Elective II		

#### 2. YEAR

##### SECOND YEAR, SEMESTER 3

Courses	Hours	ECTS
Creative Tools III - Interactive Media	30	4
CRM - Customer Management	30	6
Lateral Marketing	30	4
Practicum III	105	4
Multicultural Design		4
Project Management in Market Communications	30	4
Elective III	30	4

##### SECOND YEAR, SEMESTER 4

Courses	Hours	ECTS
Graduation Thesis	120	8

##### ELECTIVE COURSES, SEMESTER 1

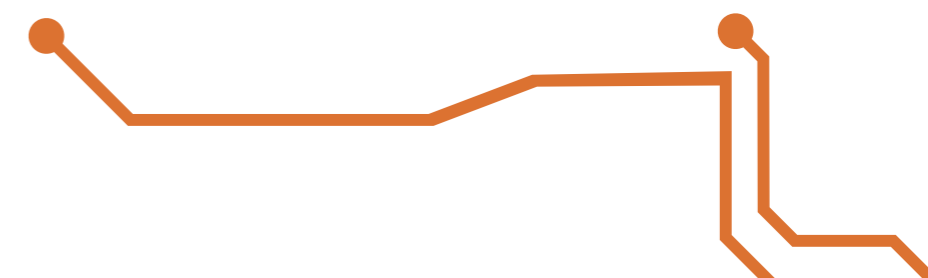
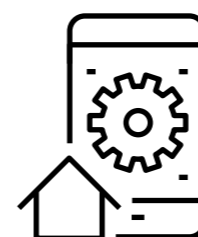
Elective courses	Hours	ECTS
Multiculturalism and Identity	30	5
Business English in Market Communications I	30	3

##### ELECTIVE COURSES, SEMESTER 2

Elective courses	Hours	ECTS
Business English in Market Communications II	30	4
Business Ethics in Market Communications	30	4

##### ELECTIVE COURSES, SEMESTER 3

Elective courses	Hours	ECTS
Film Ideas in Market Communications	30	4
Photography Ideas in Market Communications	30	4





# e-Leadership MBA

In a technology dominated world, the lack of e-leadership education is striking. Algebra University College 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 areas: all key core business and MBA modules (GMP – General Management Program), several of the core technology (ICT) MBA modules and most 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 those working at the frontiers of business, digital technology and management.**

Many faculties bring with them professional expertise, obtained on the job or through consulting engagements with the industry.

# MBA

The two-year e-Leadership MBA Program consists of 18 (17 + 1 Introductory) Modules exercised in duration of 40 lecturers' led contact hours + prereading and cases 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.

18  
MODULES

60  
HOURS PER  
MODULE

2  
YEARS

120  
ECTS

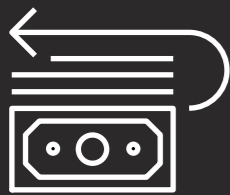
ACCREDITED  
STUDY  
PROGRAM

ACADEMIC  
DEGREE





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



**C**lassic MBA modules such as finances or management use examples and practical cases based on new business models and paradigms, and technology is used in class as the foundation for solving them (real time computer simulations, digital tools and applications, software...).



**T**echnology-oriented modules such as digital transformation or IT service management are not focused on developing such technologies, creating new IT engineers or IT department heads. They instead focus on the strategic perspective on the most useful application of technological solutions in business and in any industry.



**B**usiness plans are developed in small teams throughout the entire duration of the programme, and it does not end with a document with an analysis of a business idea, market and realisation methods as is the case with classic MBA studies and classical business plans. Instead it often continues through the collaboration between MBA students and computing students to develop a prototype (MVP) which is then presented to investors along with the business plan. An additional benefit of this approach is strong networking which facilitates synergy between MBA, computing and digital marketing students. The result, we can be proud of today, is an impressive and very influential alumni community positioned “strategically” in progressive and growing companies.





# MODULES

- INTRODUCTION TO LEADERSHIP (including 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 AND 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 (supported by DESIGN THINKING)
- MASTER THESIS

## Business transformation and innovation in digital economics

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



### Strategic Leadership:

- Forecasting needs for information
- Understanding customer needs
- Solution orientation
- Communication
- Creativity
- Independent learner
- 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
- Organisational change
- Project management
- Process optimisation
- Strategic marketing
- Agile methodology
- Business analytics
- Market analysis
- Financial skills



# ADMISSION PROCEDURE FOR INTERNATIONAL STUDENTS

## UNDERGRADUATE PROFESSIONAL PROGRAM (BACHELOR)

The program study period is equivalent to full time three-year studies from October which amounts to 180 ECTS.

In order to apply to any of our Bachelor programs, the following admission procedures must be fulfilled:

### STEP 1

#### Submit documents

- Copy of passport
- 2 passport size photos
- Educational certificates copies
- Proof of English language proficiency, e.g. IELTS, TOEFL, Pearson Test, or equivalents copy or arrange for a Skype interview
- CV in English
- Filled online application form at [www.algebra.university](http://www.algebra.university)
- Proof of payment of 255 EUR application fee (non-refundable) for international students

Before coming to Croatia, you should apply for the academic recognition of all of your documents.

### STEP 2

#### Take the entrance exam & interview

Algebra provides free preparation for candidates for the entrance exams which consists of English test and Mathematics test.

An online interview (Skype) will be conducted with the candidate in order to determine his/her motivation and English proficiency. On successful completion of the interview, the candidate will receive a conditional letter as a confirmation of acceptance to study at our institution.

## GRADUATE PROFESSIONAL PROGRAM (MASTER)

The program study period is equivalent to full time two-year studies from March which amounts to 120 ECTS.

In order to apply to any of our Master programs, the following admission procedures must be fulfilled:

### STEP 1

#### Submit documents

- Copy of passport
- 2 passport size photos
- Educational certificates copies:
  - » complete, original Transcript of records
  - » Degree Certificate/Diploma,
  - » Diploma Supplement for the finished Bachelor study program before enrolment
- Proof of English language proficiency, e.g. IELTS, TOEFL, Pearson Test, or equivalents copy or arrange for a Skype interview
- CV in English
- Proof of previous 5 years of working experience ONLY if applying to MBA program.
- Filled online application form at [www.algebra.university](http://www.algebra.university)
- Proof of payment of 255 EUR application fee (non-refundable) for international students

Before coming to Croatia, you should apply for the academic recognition of all of your documents.

### STEP 2

#### Take the entrance exam & interview

An online interview (Skype) will be conducted with the candidate in order to determine his/her motivation and English proficiency. On successful completion of the interview, the candidate will receive a conditional letter as a confirmation of acceptance to study at our institution.



### STEP 3

#### Make tuition fee payment

The tuition fee amount is payable in Croatian kuna (HRK) and in EUR. An invoice for the tuition fee will be sent separately after successful completion of the entrance exam and interview.

70% of the tuition fee for first academic year should be paid in advance. On reception of this payment, the university will issue the Acceptance Letter which is required to apply for the visa. On approval of the visa, the remaining 30% of the tuition fee should be paid before the candidate joins the program.

### STEP 4

#### Entering the country and VISA

Check if you need VISA to enter Croatia by contacting the nearest embassy of Croatia or on the website <http://www.doyouneedvisa.com>.

EU citizens do not require VISA to enter Croatia.

The list of documents needed for registering your stay is available on the following link:

<http://www.mvep.hr/en/consular-information/stay-of-aliens/granting-stay-in-croatia/>

#### Visa refusal & refund policy

In case the visa is denied for any reason Algebra University College will return the payment after charging 10% of administrative costs. Original 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 Letter of Admission from our university college with important dates, accommodation, enrolment etc. You are expected to arrive in 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 also to collect documents required for future visa applications with respect to the available mobility tracks, such as health certificates, police certificates, copy of high school diploma etc. Contact the appropriate embassy in order to receive further information about the residence permit application procedure and start processing the residence permit immediately after receiving the Letter of Admission. Check if a transit visa is needed for intermediate landing when traveling to our university college.
3. All international students are required to have health & 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 will need to be used while staying in Croatia. For students coming from the EU countries their EU health insurance card is valid under the stated terms & conditions. Any questions and support that 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, degree (diploma and diploma supplement in English) will be issued by the University to students who have successfully passed all requirements by the university.
5. Having successfully passed all study requirements, you will in addition to the degree be awarded a Diploma supplement summarizing all Algebra University College specific characteristics of the education and all compulsory extra events, e.g. participation in winter/summer schools and the organizational mobility required by the final degree project.

# Algebra LAB – the center 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 having a winning project at the 1st Big Data Hackathon organized by EUROSTAT and the European Commission in partnership with IN2 (March 2017). For that event our professors designed a system for monitoring and predicting the need for knowledge and skills on the EU labor market based on data from the Eurostat database.

We are currently developing a first complete system which integrates telco geolocation data and fiscalization data in order to better understand tourist behavior to adapt to their needs, in collaboration with Combis, Apis-IT, THT, and the Croatian Bureau of Statistics (presented in September 2017). We are also collaborating with ABG Nielsen to develop a

product which the company will be able to use to perform various analyses using an interactive tool adapted to their needs (presented in October 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 organizations.



# STUDENT OFFICE

Your first contact with the Algebra University College will be through the International Office and you will, once your study program start, be supported by Student Office. Located at the eastern entrance of our main building, it will be available to you from the moment you start studying until you obtain diploma. The Student Office organises and provides information on administrative study requirements and other student commitments, issues certificates on the status of each student, prepares 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 fulfil your study commitments and fully commit yourself to studying and classes.



## DIGITAL STUDENT SERVICE – INFOEDUKA

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, see your class schedule, study program calendar, exam dates, enroll into a semester or year, see your grades and results of seminar papers, download class materials, and access online services such as forums and webmail. It is a responsive system which works on all major platforms and resolutions, and it is also available as a free mobile application on Apple iOS and Android devices.



Head of Student Office  
**Ljiljana Buljan**

Phone  
**00 385 1 5089 368**

E-mail  
**student@algebra.hr;**  
**prijave@algebra.hr**



# EXCEL AT WHAT YOU LOVE DOING. LIGHT THE SPARK.

---

Address: **Ilica 242, HR-10000 Zagreb**

Phone: **00 385 1 5809 319**

E-mail: **[international-office@algebra.university](mailto:international-office@algebra.university)**

