VELEUČILIŠTE VELIKA GORICA
UNIVERSITY of APPLIED SCIENCES VELIKA GORICA

INFORMATION PACKAGE

Velika Gorica, June 2025.

ABOUT THE UNIVERSITY
OF APPLIED SCIENCES VELIKA GORICA

The mission of the University of Applied Sciences Velika Gorica is to provide higher education and lifelong learning by continually developing and improving high-quality, specialised study programmes and lifelong learning initiatives based on the principles of market competitiveness, academic excellence, and social responsibility. By educating and training professionals capable of addressing contemporary challenges and labour market needs, the University contributes to the responsible and sustainable development of the community.

The vision of the University of Applied Sciences Velika Gorica is to become a recognisable and modern higher education institution that, through the uniqueness and internationalisation of its study programmes and lifelong learning programmes, competes at both the national and international levels. By networking with partner institutions and stakeholders from the real sector, and by encouraging mobility and the development of scientific research, our goal is to educate competent professionals and future drivers of social development. This will be achieved by ensuring the acquisition of practical knowledge and skills during both formal studies and lifelong learning, aligned with the highest Croatian and European standards as well as the current labour market needs.

The social responsibility of the University of Applied Sciences Velika Gorica is reflected in the way the University, through its operations and activities, promotes systematic and sustainable development and a positive impact on society and the environment. The University is also infrastructurally adapted for all students, employees, and associates, ensuring smooth operations as well as enrollment and attendance of studies. Promoting equal opportunities, non-discrimination, and equality are fundamental principles in all areas of higher education activities at the University.

The Statute of the University of Applied Sciences Velika Gorica and the Law determine the institution's status, legal position, activities, and internal organization.

Tell me and I forget,
teach me and I may remember,
involve me and I learn.
B. Franklin

The University's activities include:

- Organizing and delivering professional studies and other programs in accordance with the Law
- Performing highly specialized development and research work, as well as scientific research, under conditions stipulated by specific regulations
- Organizing and implementing educational programs that are not considered study programs under the Law and are based on the principles of lifelong learning
- Organizing and implementing adult education and professional development programs
- Publishing, library, and IT activities related to its core operations
- Retail sale of books and course materials for students
- Organizing courses, seminars, professional and scientific conferences, as well as organizing professional and other examinations required for obtaining relevant permits, authorizations, licenses, etc.
- Providing services to economic and other entities in the public and private sectors to contribute to the development and improvement of the University’s quality or the rationalization of University resources
- Conducting market research, public opinion surveys, and providing consulting and advisory services that support its primary operations, provided they are performed on a smaller scale or as a customary supplement to its primary activities
- Ensuring student standard by organizing student accommodation, meals, and hospitality services, as well as providing mediation services for student employment.

UNIVERSITY **FACILITIES**

The University of Applied Sciences Velika Gorica is located at Zagrebačka 3 and Zagrebačka 5, Velika Gorica.
At Zagrebačka 3, on the second floor, there are offices for program heads and lecturers, nine lecture halls, the Cisco Academy Laboratory, the Conference Room, and the Faculty Lounge.

On the 1st floor of the main building, there are lecture halls	On the 2nd floor of the new building, there are lecture halls	In the courtyard building, there are lecture halls
A_180 E_120 I_130	A G B IT1 C IT2 D IT3 E F Conference Room	Lab_OCO TRC_099

At Zagrebačka 5, there is the Student Office, the Career and Psychological Support Center, the Dean's Department, and the University Library, which includes a student Reading Room and three computer classrooms: A_180, E_120, and I_130.

In the courtyard building, there is hall TRC_099 and the Eye Optics Laboratory (Lab_OCO).

The University premises are fully accessible for persons with disabilities.

STUDYING

Below is an overview of key concepts related to studying.

ECTS Credits

The study programs at the University are aligned with the European Credit Transfer and Accumulation System (ECTS). ECTS credits express the workload based on defined learning outcomes and the corresponding student workload. One ECTS credit corresponds to 30 hours of student work during the course of study.

Learning outcomes

Learning outcomes are statements about what is expected of a student to know, understand, be able to do, or evaluate as a result of the learning process. By achieving the learning outcomes through the study process, students acquire competences for employment and self-employment. Learning outcomes are clearly defined for each course within the study programme.

JMBAG

A unique identification number for academic citizens, obtained upon enrolment in a higher education institution.

AAI@EduHr

Upon enrolment, the student receives a user account (CARNet account) used for logging into webmail, Studomat, the e-learning system (Gaudeamus), the e-Citizens system, and similar platforms.

Studomat

An ISVU module intended for students.

Student Rights and Obligations

Student rights and obligations are determined by the Law on Higher Education and Scientific Activity, the Statute of the University, the Regulations on Studying, and all other general acts of the University adopted in accordance with it.

The student is obliged to respect the organization, implementation, and rules of study, general acts of the University, and to duly fulfill their academic obligations at the University.

The right to health insurance, subsidized meals, accommodation in student dormitories, employment through student centers, and other rights are acquired in accordance with the Law and specific regulations.

Right to Student Meals

The conditions under which the right to subsidized meals is granted are published on the website of the Ministry of Science, Education and Youth. More information can be found at the link www.srce.unizg.hr/usluge/issp/pravo-na-prehranu.

Student Code of Ethics

Students are obliged to behave as responsible members of the higher education community by respecting the legal regulations, provisions of the University, fundamental human rights, the dignity and integrity of others, principles of equality, fairness, academic freedom, and rules of polite behaviour and decorum towards teachers and other employees, external associates and students of the University. Rights and obligations prescribed by the Code of Ethics of the University of Applied Sciences Velika Gorica refer to the actions and behaviour of students on the premises owned or used by the University, as well as the actions that present or represent the University in any way. The Code of Ethics, along with all other regulations and valid acts of the University, is available on the University's website.

Academic calendar

The academic calendar is a document primarily used for planning the academic year and is available on the University's website. It contains the start and end dates of the academic year, teaching periods, exam schedules, and other important information.

Applicable general acts and regulations

All students are required to act in accordance with the University's general acts and regulations. All general acts and regulations are available on the University's website https://vvg.hr/dokumenti/.

University information system

The University officially informs students, faculty, and all other stakeholders about all study-related events through the University's website www.vvg.hr and the University's information system.

Students are required to regularly check messages, announcements, and documents posted on their personal portals and within the Gaudeamus system and respond accordingly.

Gaudeamus system

The Gaudeamus system of the University of Applied Sciences Velika Gorica is intended for electronic learning (e-learning) by using computers and computer networks (local and Internet). It is based on the Moodle e-learning platform. Access to courses is granted by faculty members who provide passwords for course enrolment.

Microsoft Teams

Microsoft Teams enables faculty to deliver lectures and consultations via conference calls in the form of video or audio calls to student groups.

Student status

Student status is acquired upon enrolment at the University. Students hold this status for the prescribed duration of their studies, provided they fulfil all prescribed study requirements set by valid laws, the Study Regulations, and other general acts of the University. Certificates of student status can be requested through the eRequests system.

Right to Suspension of Rights and Obligations

Certificates confirming student status can be requested via the eZamolbe system, accessible at: https://student.vvg.hr

Conditions for enrolment in the next academic year

In accordance with the Study Regulations, a student earns the right to enrol to the next academic year once all academic and financial obligations, expressed in ECTS credits, assigned during the previous year have been fulfilled.

Student ID card

Student status is verified through an official student ID card. The student ID card contains personal data on its surface, chip, and magnetic stripe.
The student is required to present the ID card at the Student Services Office, the Library, or to faculty upon request for administrative purposes.
Any loss or damage to the student ID card must be reported as soon as possible.

Delivery and attendance of classes

Teaching is delivered through lectures, seminars, practical exercises, individual and group consultations, mentorship, and practical training. Practical training includes working with students at teaching sites and may involve on-call duties, practical exercises, internships, fieldwork, and other forms of teaching that contribute to the acquisition of the prescribed knowledge, skills, and habits.

Classes are predominantly delivered on the premises of the University. In certain cases, classes may also be held in off-site study groups outside Velika Gorica, or in classrooms, laboratories, practical training spaces, and teaching facilities of other legal entities with whom the University has established contractual partnerships. Classes may also be delivered remotely via e-learning.

Attendance is generally mandatory for both full-time and part-time students. Student obligations regarding class attendance are regulated by the course syllabus and the Study Regulations. The Head of Course/lecturer determines possible ways of making up for any absences.

Non-attendance at lectures does not exempt part-time students from other course requirements outlined in the syllabus (such as lab work, seminar papers, or fieldwork).

The class schedule is published on the University's SharePoint and is available to both staff and students. The schedule is subject to updates and may vary from week to week depending on course needs.

The class schedule can be accessed via the following link: https://vvghr.sharepoint.com/sites/RasporedNastave/Raspored%20nastave/Forms/AllItems.aspx

Why class attendance matters

Up to 75% of the final course grade may be earned through active participation during classes. Student performance may be assessed through various activities, including: participation and engagement, acquired knowledge, skills, and competences (mid-term exams, quizzes, etc.), independent work (seminar papers, assignments, presentations, case studies, etc.), and other activities as specified in the course syllabus and curriculum. The exact breakdown of grading components is published in the course syllabus at the beginning of each course. .

Consultation Hours

Consultation hours of course instructors are published in the Gaudeamus information system and on the official website of the University.

Methods for Assessing the Achievement of Learning Outcomes

The achieved learning outcomes are assessed and evaluated during classes and at exams in accordance with the Regulations on Studying and the Guidelines on Assessment and Evaluation Procedures for Student Work.

Exams can be theoretical or practical, written, oral, or a combination of written and oral. Practical exams or learning outcomes may include the preparation of a project assignment, seminar paper, problem-solving tasks, or other forms of practical knowledge assessment.

Exam Literature

The list of exam literature and the methods for verifying the achievement of learning outcomes are determined by the course implementation plan.

The list of exam literature is also available on the website of the Library of the University of Applied Sciences Velika Gorica.

Taking exams

The final grade for each course is based on a combination of in-class performance and the final exam.

Exam periods

Exam periods are held in winter, summer, and autumn when classes are organised by semester. Each exam period lasts at least three weeks. Typically, a minimum of two exam dates per course are scheduled during each regular exam period. There must be at least seven days between attempts at the same course exam within a single exam period. When justified, the Dean or Study Council may schedule additional (extraordinary) exam periods.

How to register and deregister for exams

To take an exam, you must register no later than two days before the exam date. If you decide not to take the exam after registering, you must deregister at least one day before the scheduled date. Exam registration is done through the ISVU Studomat system.

Enrolment in the Academic Year

Enrolment in the University's study programmes and student rights and obligations are defined by the Regulations on Studying and other general acts of the University published on the official website.

A student is entitled to enrol in the next study year when they fulfil all academic and financial obligations expressed in ECTS credits (a minimum of 40 ECTS credits for enrolment in the second year of study and 100 ECTS credits for enrolment in the third year of study). If a student does not achieve the prescribed number of ECTS credits, they must repeat the year. The student must enrol in the following academic year within the prescribed enrolment deadline.

A student may only enrol in courses for which they have met the prerequisites specified in the study implementation plan.

A student who has not fulfilled the obligations from the enrolled courses must re-enrol in those courses in the next academic year.

When enrolling in a higher year, the total price of both re-enrolled and newly enrolled ECTS credits must be paid.

A full-time student typically enrols in 60 ECTS credits per academic year, while a part-time student enrols in 30 to 60 ECTS credits per academic year, in accordance with the implementation plan.

Enrolment of an Unpassed Course

A student has the right to enrol in the same unpassed course a maximum of two times, and exceptionally, a third enrolment may be approved if there are justified reasons. A student who fails to pass a course even after re-enrolment or the third enrolment will be deregistered from the study programme.

A student who does not meet the minimum conditions for taking the exam must re-enrol in the course in the following academic year.

Grading System

The rules for assessing and evaluating student achievements, as well as the system for evaluating student work during classes and exams, are regulated by the Guidelines on Procedures for Assessing and Evaluating Student Work at the University of Applied Sciences Velika Gorica.

Professional practice/internship

The implementation of professional practice is regulated by the Professional Practice Regulations, which are available on the University's website.

Completion of studies

The process of completing your studies is prescribed by the relevant Regulation, available on the University's website.

STUDENT SUPPORT

To facilitate studying and support students in the teaching process, students are provided with assistance through the Student Administration Office, the Career and Psychological Support Center, year mentors, and others.

STUDENT SERVICES OFFICE (REFERADA)

The Student Services Office is a department primarily focused on supporting students throughout their studies and helping them achieve the best possible academic experience. If you have any questions or uncertainties, this is the place to go for quick, verified, and accurate information. For all inquiries, the Student Services Office is available via email: referada@vvg.hr.

TEACHING STAFF

All teaching staff contact information and email addresses, as well as consultation times, are provided in each course syllabus and are also available on the University's website.

YEAR MENTORS (ADVISORS)

Mentor (tutor) pomaže studentima savjetima pri snalaženju na studiju, upoznaje ih s obvezama pohađanja nastave i vježbi, upućuje u postupak prijave, odjave i polaganja ispita, izbor izbornih kolegija te ih obavještava o ostalim aktivnostima na Veleučilištu koje promiču kvalitetu studiranja ili su vezane uz studijske aktivnosti.

Mentor prati rad studenata tijekom cijelog studija te ćete mentora vaše studijske godine upoznati neposredno nakon početka nastave u prvom semestru 1. godine studije.Mentori su vam dostupni i za pojedinačne sastanke u vrijeme redovitih mentorskih konzultacija, a termine konzultacija objavit će početkom semestra.

Tko je mentor vaše godine studija možete provjeriti u Izvedbenom planu studija koji vam je dostupan na mrežnim stranicama Veleučilišta.

CAREER AND PSYCHOLOGICAL SUPPORT CENTER

With the aim of improving the quality of studying and student standards by strengthening students' personal competences and resources, the Career and Psychological Support Center operates at the University of Applied Sciences Velika Gorica.

The Center offers the following services:

- psychological counselling
- academic counselling
- career counselling.

More information about the activities of the Career and Psychological Support Center can be found on the University website https://www.vvg.hr/savjetovaliste-za-studente/

You can also send your questions via email to: savjetovaliste@vvg.hr.

LIBRARY

The Library of the University of Applied Sciences Velika Gorica holds a collection of over 4,500 items of professional literature available for student borrowing.

The University also publishes its scientific journal, The Annal of Disaster Risk Science (ADRS), which is available online.

Students can borrow books upon presenting their student ID card. Books are loaned for one month, with the option to extend the loan for an additional month.

Each student may borrow up to five books at a time. All available literature supports the curriculum and study programs of the University.

An integral part of the Library is a quiet study space, i.e., a reading room with 16 seats. Students can use the reading room during the Library's regular working hours.

IT SUPPORT SERVICE

The IT Support Service provides students with technical assistance related to information technologies.

INTERNATIONAL
OPPORTUNITIES FOR STUDENTS

Students of the University of Applied Sciences Velika Gorica can participate in Erasmus+ programs. Students can take advantage of mobility opportunities for study purposes or for professional internships.

The University currently has 32 signed agreements with higher education institutions from the European Union, as well as four agreements with partner countries under the Erasmus program, specifically, two agreements with higher education institutions from Bosnia and Herzegovina, one agreement with a higher education institution from Serbia, one agreement with a higher education institution from Ukraine.
More information about the Erasmus+ program and current calls can be found on the University's website https://vvg.hr/mobilnost/.

STUDY
PROGRAMMES

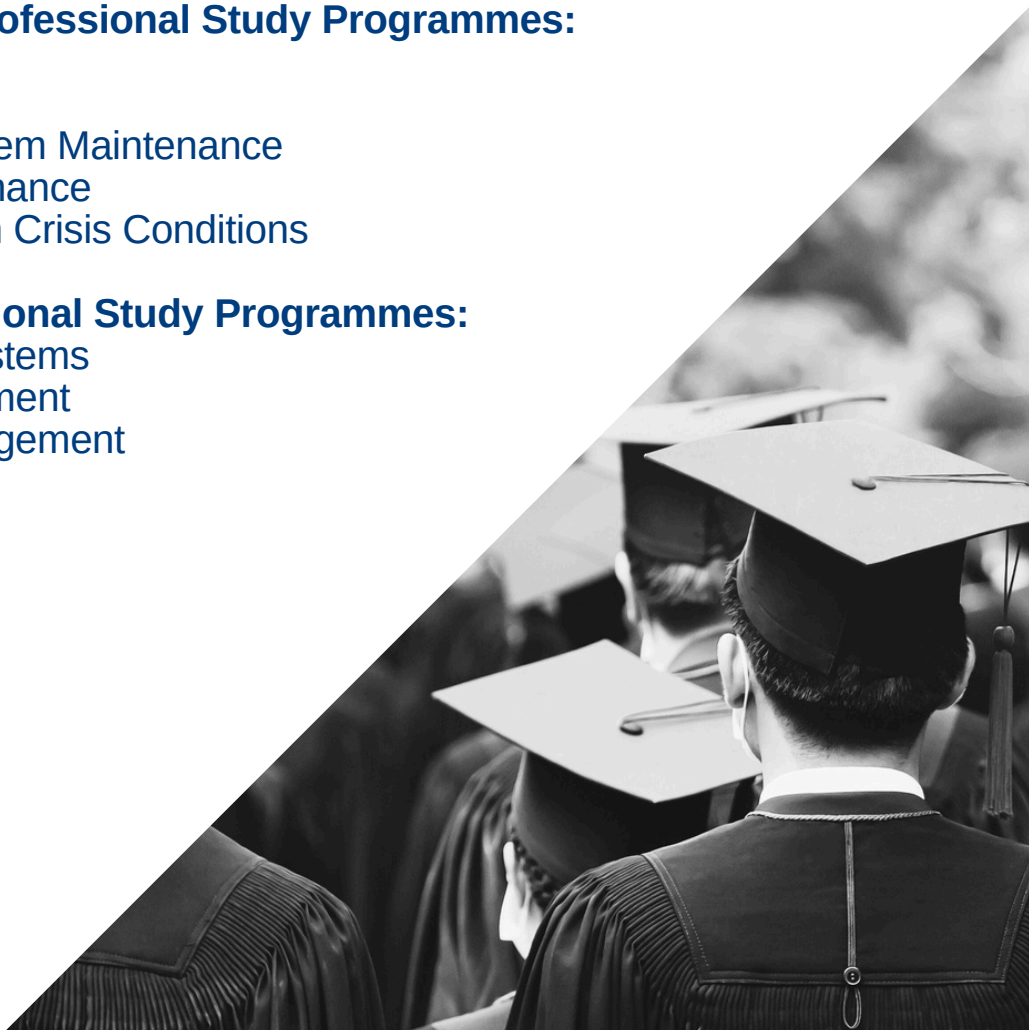
The University of Applied Sciences Velika Gorica currently offers one short professional study, five professional undergraduate study programs, and four professional graduate study programs in the scientific field of technical sciences, enabling students to acquire the knowledge and skills necessary for professions that are in real demand in Croatia and beyond.

The study programs currently offered by the University of Applied Sciences Velika Gorica are:

- **Short-cycle study programme:**
  - Digital Technologies

- **Undergraduate Professional Study Programmes:**
  - Motor Vehicles
  - Eye Optics
  - Computer System Maintenance
  - Aircraft Maintenance
  - Management in Crisis Conditions

- **Graduate Professional Study Programmes:**
  - Information Systems
  - Crisis Management
  - Logistics Management
  - Optometry



PROFESSIONAL SHORT STUDY PROGRAMME

DIGITAL TECHNOLOGIES

The Professional Short Study Programme Digital Technologies aims to respond to modern challenges and labor market demands, thereby contributing to the responsible and sustainable development of the community.

Elements of digital skills and competences include the ability to find and gather information, analyze and evaluate information, use, store, create or produce content, present, publish, and share digital information. They also encompass social networking, developing collaborative networks, and co-creating documents online, all while being aware of safety measures and methods for protecting digital identity and data, with the goal of safe and sustainable usage.

Upon completion of the Professional Short Study Programme Digital Technologies, students acquire general and professional competences.

Professional Competences: Upon completion of the Professional Short Study Programme Digital Technologies, the student will be able to select and evaluate tools and methods in the field of digital technologies, develop software solutions, use computer tools, design and present IoT projects, analyze risks in cyberspace, create databases and websites, apply digital technologies and artificial intelligence in business processes, and connect the application of digital technologies with sustainable development goals. With these professional competences, the student will, upon graduation, be able to analyze and evaluate various technical and technological solutions involving the use of computer tools for data analysis and comparison, in order to propose optimal solutions within technical, economic, social, and legal frameworks.

General Competences include the ability to analyze, synthesize, and evaluate information, independent learning and decision-making, as well as effective collaboration and communication in teamwork. Students develop numerical, digital, and information literacy, along with clear and precise oral and written communication skills, including professional communication in their native language and in English within the STEM field.

Special emphasis is placed on organizational skills and the critical, ethical, and responsible use of information and communication technology in personal, professional, and societal contexts, with an understanding of its impact on sustainable development. Students are trained to recognize information as a valuable resource, critically evaluate professional and scientific literature, and apply methods of independent and lifelong learning. Special emphasis is on developing critical thinking and the application of ethical principles, digital security, and social responsibility.

Upon completing the Professional Short Study Programme Digital Technologies, students are awarded the professional title "Applicant of Digital Technologies" (pristup. dig. tech.) and 120 ECTS credits.

LEARNING OUTCOMES OF THE STUDY PROGRAMME

DT1: Explain the importance of digital technologies and artificial intelligence in the development of society.
DT2: Use computer tools in a business environment.
DT3: Describe the impact of digital technology on sustainable development.
DT4: Apply acquired knowledge and skills to solve work tasks in a business environment.
DT5: Use the English language in both speech and writing within the STEM field.
DT6: Independently or as part of a team, implement a project according to the requirements and needs of the users.
DT7: Select appropriate tools, techniques, and methods to solve work tasks.
DT8: Design solutions for the application of digital technologies in a business environment.
DT9: Present views, solutions, and projects using communication skills.
DT10: Act in accordance with instructions during the process of solving work tasks.
DT11: Use professional literature from the field of digital technologies.
DT12: Apply electronic methods for teaching and self-learning (e-learning).

STUDY PLAN FOR

DIGITAL TECHNOLOGIES PROGRAMME

Course	Status	I.			II.			III.			IV.		
		L	P	S	L	P	S	L	P	S	L	P	S
Digital technique	Compulsory	2	2	0									
English language I	Compulsory	1	1	0									
Basic mathematics	Compulsory	2	2	0									
Computer tools in business	Compulsory	1	3	0									
Introduction to Programming	Compulsory	1	3	0									
Stress management	Elective	1	2	0									
Introduction to management	Elective	1	2	0									
English language II	Compulsory				1	1	0						
Internet and WEB technologies	Compulsory				2	2	0						
Basics of programming IoT devices	Compulsory				1	3	0						
Applied Mathematics	Compulsory				2	2	0						
Computer equipment	Compulsory				2	2	0						
3D technologies	Elective				1	2	0						
Principles of risk management	Elective				2	1	0						
Communication systems	Compulsory							2	1	0			
Quality and compliance	Compulsory							2	1	0			
Fundamentals of Web Design	Compulsory							1	3	0			
Artificial Intelligence	Compulsory							2	2	0			
Introduction to Databases	Compulsory							2	2	0			
Practical Work	Compulsory							0	8	0			
Industry and creative society 4.0 and 5.0	Elective							2	1	0			
Satellite navigation	Elective							2	1	0			
Green technology and sustainable development	Elective							2	1	0			
Cyber security	Compulsory										2	2	0
Communication and presentation skills	Compulsory										1	2	0
Diploma Thesis	Compulsory										0	5	0
Autonomous systems	Elective										2	1	0
Organizational psychology	Elective										2	1	0

PROFESSIONAL UNDERGRADUATE STUDY PROGRAMME

EYE OPTICS

The Optometry study program is intended for individuals who wish to work in the field of optometry and ophthalmic optics. Upon completion of the professional undergraduate study in Optometry, students acquire knowledge and skills relevant to the practice of optometry.

Professional Competences: optical correction of refractive and other eye anomalies, planning and conducting vision tests, including selecting appropriate instruments and methods, independently determining and prescribing necessary eyeglasses, contact lenses, and other vision aids, linking the structure of the eye with visual function, recognizing anomalies in the visual system ergonomics of vision proposing and evaluating the effectiveness of visual aids, advising on the proper use of eyeglasses, contact lenses, and other visual aids, applying professional knowledge to solve specific problems in the field.

General Competences: ability to apply acquired knowledge in practice, ability to analyze and synthesize, effective communication skills in both the native and a foreign language, digital literacy, use of professional literature and digital sources for continuous professional development and learning, research skills and information management, problem-solving ability, critical thinking, decision-making skills, ability to work independently and in a team, application of ethical principles in daily practice, adherence to professional conduct as a foundation for further professional and academic development.

Upon completion of the professional undergraduate study in Optometry, the academic title Bachelor of Engineering in Optometry (bacc. ing. opt.) is awarded, along with 180 ECTS credits.

LEARNING OUTCOMES OF THE STUDY PROGRAMME

OCO1. Critically evaluate the operating principles of optical elements in physical optics
OCO2. Compare types of optical materials based on their structure, properties, and applications
OCO3. Compare the effectiveness of different visual aids, optometric instruments in specific measurements, and the effect of diagnostic drugs
OCO4. Relate the basic functions and anatomy of the eye to the overall human body
OCO5. Integrate ethical and professional principles for responsible and effective work
OCO6. Communicate actively in English, both spoken and written, on topics in the field of optometry
OCO7. Propose an appropriate client vision testing plan based on medical history and prior tests
OCO8. Assess which changes in the eye require examination and follow-up by an ophthalmologist
OCO9. Evaluate which physiological conditions and pathological changes of the eye affect vision and visual acuity
OCO10. Propose corrective visual aids to ensure service quality and the client's quality of life
OCO11. Create a plan for the use, cleaning, disinfection, and maintenance of visual aids
OCO12. Integrate the rules of professional conduct in relationships with clients and colleagues
OCO13. Independently manage relationships with other team members, recognizing potential sources of misunderstanding and conflict, and act proactively and effectively to resolve them
OCO14. Propose solutions in the field of optometry
OCO15. Combine the use of professional literature and tools for searching available information and knowledge databases (libraries, e-libraries, the Internet) for teaching and self-directed learning
OCO16. Connect new knowledge with the adoption of new technologies and their application in the profession

STUDY PLAN FOR

EYE OPTICS PROGRAMME

Course	Status	I.			II.			III.			IV.			V			VI.		
		L	P	S	L	P	S	L	P	S	L	P	S	L	P	S	L	P	S
English I	Compulsory	1	1	0															
Physics	Compulsory	2	1	0															
Geometrical Optics	Compulsory	2	2	0															
Computer Science I	Compulsory	2	2	0															
Mathematics	Compulsory	2	2	0															
Fundamentals of Anatomy and Physiology	Compulsory	3	1	0															
Optometrist Clinical Ethics	Elective	2	0	0															
Fundamentals of Physics, Radiology and Radiation Protection	Elective	2	0	0															
Anatomy, physiology and histology of the eye	Compulsory				2	1	0												
English II	Compulsory				2	1	0												
Ergonomics of Vision	Compulsory				2	1	0												
Physical Optics	Compulsory				2	2	0												
Eye Optics	Compulsory				2	4	0												
Optical and Optometrical Instruments	Compulsory				2	2	0												
Computer Science II	Elective				2	1	0												
Medical Psychology	Elective				1	1	0												
English III	Compulsory							1	1	0									
Fundamentals of Chemistry and Chemistry of Contact Lenses	Compulsory							2	1	0									
Fundamentals of General Pathology and Eye Diseases	Compulsory							3	1	0									
Refraction and Binocular Vision I	Compulsory							2	5	0									
Technology of Optical Materials and Frames	Compulsory							2	2	0									
Healthcare	Compulsory							2	1	0									
Occupational medicine	Elective							2	2	0									
Management and Entrepreneurship	Elective							2	1	0									
English IV	Compulsory										1	1	0						
Contact Lenses I	Compulsory										2	3	0						
Optometric Practice I	Compulsory										0	4	0						
Fundamentals of Pharmacology	Compulsory										2	0	0						
Pediatric Refraction and Amblyopia	Compulsory										1	1	0						
Refraction and Binocular Vision II	Compulsory										2	3	0						
Professional and Scientific Work	Elective										2	1	0						
Safety at Work	Elective										2	1	0						
Contact Lenses II	Compulsory													2	2	0			
Optometric Practice II	Compulsory													0	6	0			
Refraction and Binocular Vision III	Compulsory													2	3	0			
Aging and Eye Refraction	Compulsory													1	1	0			
Statistics	Compulsory													2	1	0			
Communicology	Elective													2	1	0			
Neurology	Elective													2	0	0			
Contact Lenses III	Compulsory																2	2	0
Optometric Practice III	Compulsory																0	7	0
Refraction and Binocular Vision IV	Compulsory																1	3	0
Diploma Thesis	Compulsory																0	6	0
Fundamentals of Law and Legal Regulations	Elective																2	1	0
Professional and Scientific Work	Elective																2	1	0

PROFESSIONAL UNDERGRADUATE STUDY PROGRAMME

COMPUTER SYSTEMS MAINTENANCE

The programme prepares students to perform support roles in the implementation of computers across various segments of business processes and tasks related to computer systems maintenance, such as: selecting and configuring computer hardware and software according to business process requirements, participating in software development, creating and maintaining databases, configuring and maintaining computer networks, configuring and maintaining operating systems, monitoring the security of computer systems and data (protection against unauthorized access, planning and execution of data backups), configuring and maintaining computers used for the supervision of non-computer systems.

Upon completion of the professional study program, students acquire the knowledge and skills necessary for employment in the field of computer systems maintenance and user support.

Professional competences include: designing optimal configurations of personal computers for various tasks, selecting and configuring software according to business process requirements, supporting the design and development of software applications, developing applications in an internet environment, maintaining databases, understanding the basics of computer networks and computer architecture, configuring and maintaining computer networks, configuring and maintaining operating systems, monitoring the security of computer systems and data (protection against unauthorized access, planning and executing data backups), configuring and maintaining computers for the monitoring and control of industrial, energy, and other processes, training users to operate computers and use various applications, setting up and configuring network operating systems and applications on user computers

General competences include: the ability to analyze, synthesize, and think critically when solving complex problems, effective use of the native language and english in reading literature and professional communication, applying knowledge of mathematics and physics to solve engineering problems, proficiency in using standard software tools for document creation, spreadsheets, presentations, and calculations, acquiring the ability to apply knowledge in practice, along with continuous learning and self-learning using literature and modern self-learning tools, the ability to work in a team and make decisions, ethical and responsible thinking and action in professional and social contexts.

Upon completion of the professional undergraduate study program in Computer Systems Maintenance, the graduate earns the academic title of Bachelor of Engineering in Information Technology (bacc. ing. techn. inf.).

LEARNING OUTCOMES OF THE STUDY PROGRAMME

ORS1. Apply theoretical foundations of mathematics, physics, and electrical engineering in computing

ORS2. Propose software engineering and programming methods using modern programming languages

ORS3. Critically analyze and compare basic architectures, protocols, procedures, and standards

ORS4. Analyze principles and methods of computer systems maintenance and perform quality control in computing in accordance with current procedures and standards

ORS5. Use English in both spoken and written communication within the field of informatics and computing

ORS6. Propose solutions in the field of computing with analysis and evaluation of the same and similar solutions

ORS7. Critically apply modern software tools

ORS8. Adapt computer systems according to user needs

ORS9. Independently apply programming languages in the development, analysis, and adaptation of software

ORS10. Independently or in a team, implement a project according to user requirements and needs, following adopted standards, technologies, methodologies, and presentation techniques

ORS11. Propose solutions in the field of computing and information systems and their environments, with analysis and evaluation of the same and similar solutions

ORS12. Propose solutions to improve the security of computer systems and the data stored on them

ORS13. Present one's opinions, solutions, and projects using communication skills and technological tools and resources for creating presentations

ORS14. Propose and critically justify creative solutions and evaluate their applicability in a given environment

ORS15. Apply professional literature and use scientific and expert resources available on the Internet

ORS16. Use learning skills, including electronic methods for independent learning (e-learning), in the context of successful studying and lifelong learning and education

STUDY PLAN FOR

COMPUTER SYSTEMS MAINTENANCE PROGRAMME

Course	Status	I.			II.			III.			IV.			V			VI.		
		L	P	S	L	P	S	L	P	S	L	P	S	L	P	S	L	P	S
Electrical Engineering I	Compulsory	2	2	0															
English I	Compulsory	1	1	0															
Physics	Compulsory	2	1	0															
Structure and Use of Computers	Compulsory	2	3	0															
Mathematics I	Compulsory	2	2	0															
Programming	Compulsory	2	3	0															
C Programming	Elective	2	2	0															
Computer System Devices	Elective	2	1	0															
Algorithms and Data Structures	Compulsory				2	3	0												
Electrical Engineering II	Compulsory				2	2	0												
English II	Compulsory				1	1	0												
Mathematics II	Compulsory				2	2	0												
Operational Systems I	Compulsory				2	2	0												
Symbolic Logic	Compulsory				2	2	0												
Fundamentals of Ecology	Elective				2	0	0												
Psychology of Stress	Elective				2	1	0												
Databases	Compulsory							3	2	0									
English III	Compulsory							1	1	0									
Mathematics III	Compulsory							2	1	0									
Operational Systems II	Compulsory							2	2	0									
Quality Assurance and Control	Compulsory							2	0	0									
Computers and Processes	Compulsory							2	2	0									
Discrete Mathematics	Elective							2	1	0									
Internet Infrastructure	Elective							2	1	0									
Communicology	Compulsory										2	2	0						
Management and Entrepreneurship	Compulsory										2	2	0						
Computer Systems and Networks Maintenance	Compulsory										2	2	0						
Computer Networks	Compulsory										2	2	0						
Computer Control of Processes	Compulsory										2	2	0						
Office Applications	Compulsory										2	1	0						
Database Programming	Elective										2	2	0						
Introduction to Machine Learning	Elective										2	1	0						
Computer Maintenance	Compulsory													2	2	0			
Practical Work	Compulsory													0	15	0			
Satellite Geographical Positioning	Elective													2	1	0			
Web Applications	Elective													2	1	0			
Information Systems Design	Compulsory																2	2	0
Information Systems Security	Compulsory																2	2	0
Diploma Thesis	Compulsory																0	5	0

PROFESSIONAL UNDERGRADUATE STUDY PROGRAMME

MOTOR VEHICLES

In today's world, where technology is rapidly advancing, the automotive industry is in constant transformation. From conventional vehicles to electric and hybrid cars, and even to autonomous driving and smart systems, new challenges and opportunities are continuously emerging. This creates a growing demand in society and the market for experts—motor vehicle engineers—who are eager to engage in this dynamic profession because they understand these challenges and recognize the opportunity for a successful career.
The profession of a motor vehicle engineer encompasses a range of tasks that are technologically related and intersectorally connected. These include: testing and maintenance of motor vehicles, managing and implementing technological maintenance processes, planning and organizing maintenance operations for motor vehicles, research and development of new systems, quality assurance, planning of technical logistics, ensuring safety and protection in the field of motor vehicles.

In the Motor Vehicles study program, students acquire fundamental knowledge and practical skills with a strong focus on maintaining the operational reliability of motor vehicles. A special emphasis is placed on practical training, which means that students engage directly with motor vehicles in laboratories and workshops located at our partner institutions, using state-of-the-art equipment.

Throughout the course of the program, the following key competences are developed:

Professional Competences:

- Planning, Organizing, and Managing Vehicle Maintenance Systems: You will become an expert in optimizing vehicle maintenance processes, ensuring efficiency, reliability, and cost-effectiveness in automotive service operations.
- Logistical Support in Vehicle Maintenance: Gain a strong understanding of logistical strategies and their application in supporting the vehicle maintenance workflow, from parts supply to service scheduling.
- Vehicle Condition Control: Perform technical inspections and verify optimal vehicle performance, reliability, and legal compliance, including conducting and interpreting results of mandatory technical checks.
- Execution and Supervision of Maintenance Technology: Acquire hands-on skills for performing and supervising maintenance operations on motor vehicles in line with current technological standards.
- Communication in the Maintenance Process: Learn to convey technical information clearly, responsibly, and on time to team members and clients, ensuring smooth operation within the service environment.
- Use of Information Technology in Vehicle Maintenance: Apply software tools for diagnostics, documentation, and maintenance management, integrating IT solutions into everyday technical processes.
- Application of Legal and Safety Regulations: Ensure quality and compliance by implementing relevant legal, environmental, and safety standards throughout the vehicle maintenance process.

General Competences:

- Analysis, Synthesis, and Evaluation: Ability to think critically and solve complex problems through logical reasoning and informed judgment.
- Independent Learning and Decision-Making: Development of skills for continuous professional development and responsible, autonomous decision-making.
- Teamwork and Communication: Learn to collaborate effectively and communicate clearly in a professional and technical environment.
- Organizational Skills, Numerical and IT Literacy: Acquire tools for efficient data management and process organization, including the use of modern digital technologies.
- Professional Ethics and Responsibility: Foster a high level of ethical conduct and responsibility in the workplace and in technical practice.

Upon completion of the study program, students acquire all the necessary knowledge and skills to solve problems related to motor vehicle maintenance and address real-world challenges in the automotive industry.

Graduation is achieved by successfully passing all exams and fulfilling other obligations outlined in the prescribed curriculum, as well as by completing and defending a final thesis. This leads to the awarding of the professional title Bachelor of Mechanical Engineering in Motor Vehicles (bacc. ing. mech.) along with 180 ECTS credits.
Upon completing the study program, a wide range of career opportunities becomes available. With a degree in Motor Vehicle Engineering, you can find employment in:

- Authorized service centers and car dealerships: as diagnostic technicians, service advisors, or service managers
- Vehicle and parts manufacturing: in quality control, development, or production
- Vehicle inspection companies: as technical advisors or inspectors
- Insurance companies: as vehicle damage assessors
- Transport companies: managing and maintaining vehicle fleets
- Auto clubs and associations
- Entrepreneurship: by opening your own service shop or specialized workshop

Many graduates also choose to continue their education through specialized graduate professional studies, further expanding their knowledge and opening even more career paths.

LEARNING OUTCOMES OF THE STUDY PROGRAMME

MV1. Analyze the properties and functions of motor vehicle systems
MV2. Critically compare and interpret the physical parameters of motor vehicle construction
MV3. Evaluate and rank the performance characteristics of motor vehicles
MV4. Select technological processes for maintenance and testing of motor vehicles
MV5. Plan technical logistics in motor vehicle maintenance
MV6. Recommend modern computer programs for graphical communication in technical documentation and diagnostics
MV7. Analyze and present the working principles of assemblies and devices in motor vehicles
MV8. Present and justify the analysis of the condition of motor vehicles
MV9. Manage the motor vehicle maintenance system
MV10. Critically assess the causes and consequences of technical faults in vehicles
MV11. Develop and apply teamwork skills in servicing motor vehicles
MV12. Assess the impact of motor vehicle emissions on people and the environment, and suggest protection measures
MV13. Self-assess the need for and choose methods of continuous education and training in the motor vehicle field
MV14. Independently use the English language to read technical literature and communicate professionally
MV15. Evaluate one's own level of professional and ethical responsibility in vehicle maintenance

STUDY PLAN FOR

MOTOR VEHICLES PROGRAMME

Course	Status	I.			II.			III.			IV.			V			VI.		
		L	P	S	L	P	S	L	P	S	L	P	S	L	P	S	L	P	S
Electrical Engineering I	Compulsory	2	2	0															
English I	Compulsory	1	1	0															
Physics	Compulsory	2	1	0															
Computer Science I	Compulsory	2	2	0															
Chemistry	Compulsory	2	1	0															
Mathematics I	Compulsory	2	2	0															
Technical Drawing and Computer Graphics	Compulsory	2	1	0															
Fundamentals of Ecology	Elective	2	0	0															
Psychology of Stress	Elective	2	0	0															
Strength of Structures	Compulsory				2	1	0												
Structure Elements	Compulsory				2	2	0												
English II	Compulsory				1	1	0												
Mathematics II	Compulsory				2	2	0												
Materials and Thermal Processing	Compulsory				2	1	0												
Mechanics	Compulsory				2	2	0												
Measurements in Mechanical Engineering	Compulsory				2	1	0												
Thermal Dynamics	Compulsory				2	1	0												
Electrical and Electronic Equipment	Compulsory							2	1	0									
English III	Compulsory							1	1	0									
Engines	Compulsory							3	1	0									
Motor Vehicles	Compulsory							3	1	0									
Quality Assurance and Control	Compulsory							2	0	0									
Fundamentals of Technical Safety	Compulsory							2	1	0									
Fuels and Lubricants	Compulsory							2	1	0									
Electric and Hybrid Vehicles	Compulsory										2	1	0						
Hydraulics and Pneumatics	Compulsory										2	1	0						
Management and Entrepreneurship	Compulsory										2	1	0						
Fundamentals of Automatic Control	Compulsory										2	1	0						
Construction Machines	Elective										2	1	0						
Computer-Aided Design	Elective										2	1	0						
Production Technologies	Elective										2	1	0						
Special Purpose Vehicles	Elective										2	1	0						
Motor Vehicles Testing	Compulsory													2	1	0			
Vehicle Maintenance	Compulsory													2	2	0			
Practical Work	Compulsory													0	15	0			
Organization of Servicing	Compulsory																2	1	0
Diploma Thesis	Compulsory																0	5	0
Communication Skills	Elective																2	1	0
Logistics Engineering	Elective																2	1	0

PROFESSIONAL UNDERGRADUATE STUDY PROGRAMME

AIRCRAFT MAINTENANCE

Aircraft Maintenance is a study programme focused on education in the fields of maintenance organization and implementation of aircraft and aircraft systems maintenance technologies for both civil and military aviation. Students acquire knowledge in: the design and features of aircraft, electrical and mechanical systems and aircraft equipment, organization and technology of aircraft maintenance, aircraft systems and equipment, implementation of occupational safety measures, implementation of safety and quality systems in aircraft maintenance processes in accordance with aviation regulations and standards, working in multicultural environments and leading multicultural teams in aircraft maintenance operations.

Upon completion of the study, students acquire the necessary knowledge and skills to work in aircraft maintenance roles. Graduates are qualified to handle professional tasks related to managing the organization and execution of technological maintenance processes in accordance with aircraft airworthiness control standards.

Professional Competences include:

- Possession of knowledge in aerodynamics and in the manufacturing and maintenance technologies of aircraft structures, aircraft systems, and engines.
- Possession of knowledge in the field of remote data transmission using all types of signal modulation for the control and maintenance of aircraft navigation and communication systems.
- Development of aircraft maintenance programs in accordance with design requirements and aviation regulations.
- Planning of aircraft maintenance tasks according to the requirements of maintenance programs, aiming to minimize the impact on scheduled flights while maintaining safety and cost-efficiency.
- Based on data received from automatic onboard reporting systems, feedback from flight crews, or findings from inspections or tests during aircraft maintenance, analyzing the operational correctness and reliability of the aircraft, its systems, and engines.
- Planning necessary spare parts, materials, tools, and human resources for aircraft maintenance tasks.
- Organizing and managing institutions for the development of aircraft maintenance programs and for the maintenance of aircraft, parts, and engines.
- Applying principles of quality, safety, and cost-efficiency in planning tasks and in organizing and ensuring the quality of aircraft maintenance operations.
- Identifying causes of errors in the aircraft maintenance system caused by unintentional human actions and analyzing these errors to prevent future occurrences.

General Competences include:

- Organizing and leading multicultural teams for aircraft maintenance.
- Communication with partners in English and Croatian, either directly or via electronic media (e.g., analyzing the probability of events based on system monitoring and defined observation events; applying non-destructive testing methods to assess material quality and detect structural flaws).
- Adaptability – the ability to adjust to changing circumstances and new challenges in the field of aircraft maintenance (e.g., implementing new technologies and solutions into maintenance programs, drafting engineering orders, and preparing documentation for work and the existing maintenance organization system).
- Constructively and ethically resolving problems within the professional field of work – the ability to identify problems and find effective solutions in a dynamic environment (e.g., analyzing existing design and technological solutions on aircraft and recommending improvements to aircraft construction and maintenance technologies; identifying the causes of errors arising from human factors and proposing solutions to prevent them).
- Technological literacy – understanding and using modern technologies and software tools in aircraft maintenance (e.g., understanding and applying software and hardware solutions in aircraft design and maintenance technologies in line with technological development; using 3D printing technology to produce parts and tools for work).
- Use of IT technologies for monitoring aircraft systems, organizing work, and archiving data based on a paperless office model.

Upon completion of the professional undergraduate study program in Aircraft Maintenance, students are awarded the professional title Bachelor of Aeronautical Engineering (baccalaureus/baccalaurea inženjer/inženjerka zrakoplovnog inženjerstva, abbreviated as bacc. ing. aeronaut.) and earn 180 ECTS credits.

LEARNING OUTCOMES OF THE STUDY PROGRAMME

OZR1. Develop operational manuals based on the analysis of aviation regulations related to aircraft maintenance, airworthiness, and operational requirements for aircraft.
OZR2. Outline the structure of an air transport organization and an aircraft, engine, or component maintenance organization.
OZR3. Classify levels of maintenance according to their impact on safety and the costs of regular and non-regular maintenance.
OZR4. Apply the quality system concept within an air operator organization and an aircraft maintenance organization.
OZR5. Distinguish between aircraft maintenance based on the MSG-2 and MSG-3 concepts.
OZR6. Differentiate individual aircraft components in relation to the physical laws of flight and the functioning of aircraft systems.
OZR7. Apply standard aircraft maintenance procedures as prescribed by the aircraft maintenance program.
OZR8. Create a center-of-gravity shift diagram for an aircraft in accordance with the designed performance, operational flight limitations, and maintenance requirements, based on aircraft weighing data.
OZR9. Calculate the required minimum stock of spare parts and materials in the warehouse for aircraft maintenance.
OZR10. Solve problems in mechanics, thermodynamics, electrical engineering, aerodynamics, and fluid mechanics related to aircraft operations.
OZR11. Analyze operational flight errors using data from aircraft maintenance reliability programs.
OZR12. Differentiate responsibilities related to ensuring working conditions, execution of aircraft maintenance tasks, and the aircraft maintenance organizational process.
OZR13. Describe the professional and ethical responsibilities of the human factor in aircraft maintenance.
OZR14. Use English language with aviation vocabulary at a level sufficient for understanding aircraft technical documentation and applying procedures written in English.
OZR15. Present your views, solutions, and projects through seminar papers, project development, and the final thesis.
OZR16. Use information technology and digital methods for teaching and independent learning.

STUDY PLAN FOR
AIRCRAFT MAINTENANCE PROGRAMME

Course	Status	I.			II.			III.			IV.			V			VI.		
		L	P	S	L	P	S	L	P	S	L	P	S	L	P	S	L	P	S
English I	Compulsory	1	1	0															
Physics	Compulsory	2	1	0															
Computer Science I	Compulsory	2	2	0															
Chemistry	Compulsory	2	1	0															
Mathematics I	Compulsory	2	2	0															
Fundamentals of Electrical Engineering	Compulsory	2	2	0															
Technical Drawing and Documentation	Compulsory	2	2	0															
Fundamentals of Ecology	Elective	2	1	0															
Psychology of Stress	Elective	2	1	0															
Structural Strength	Compulsory				2	2	0												
Structure Elements	Compulsory				2	2	0												
English II	Compulsory				1	1	0												
Engineering Measurements	Compulsory				2	1	0												
Mathematics II	Compulsory				2	2	0												
Materials and Thermal Processing	Compulsory				2	1	0												
Mechanics	Compulsory				2	2	0												
Thermal Dynamics	Compulsory				2	2	0												
English III	Compulsory							1	2	0									
Organization of aircraft maintenance processes	Compulsory							2	1	0									
Quality Assurance and Control	Compulsory							2	0	0									
Fundamentals of Aerodynamics and Flight Mechanics	Compulsory							3	2	0									
Air Navigation Regulations	Compulsory							3	0	0									
Aircraft Systems and Equipment I	Compulsory							3	2	0									
Aviation Technologies	Compulsory							2	1	0									
Non-destructive Testing in Aviation	Elective							2	1	0									
Fundamentals of Electronics	Elective							2	1	0									
Hydraulics and Pneumatics	Compulsory										2	2	0						
Aircraft Design	Compulsory										3	2	0						
Fundamentals of Automatic Control	Compulsory										2	1	0						
Aircraft Propulsion I	Compulsory										3	1	0						
Aircraft Systems and Equipment II	Compulsory										3	2	0						
Digital Electronics	Elective										2	2	0						
Mechanical Processing	Elective										2	2	0						
Aircraft Maintenance I	Compulsory													3	2	0			
Aircraft Propulsion II	Compulsory													3	2	0			
Practical Work	Compulsory													0	15	0			
Helicopters	Compulsory																2	1	0
Aircraft Maintenance II	Compulsory																3	2	0
Diploma Thesis	Compulsory																0	5	0
Logistics Engineering	Elective																2	1	0
Human resource organization in aircraft maintenance	Elective																2	1	0

PROFESSIONAL UNDERGRADUATE STUDY PROGRAMME

MANAGEMENT
IN CRISIS CONDITIONS

The study program is focused on educating professionals who will be capable of assessing risks, planning and managing crisis situations, and preparing relevant documentation in accordance with the legislative framework of the Republic of Croatia and the directives of the European Union. Students develop competencies in analyzing the security environment, risk management, organizing drills, teamwork, and effective communication in crisis situations. The knowledge acquired ensures employability in security and civil protection sectors, continuation of education, and active contribution to protecting people, property, and the environment during crises.

Upon completion of the study program, students acquire professional and general competencies in the fields of civil protection, crisis management, and security systems.

Professional competences:
Ability to analyze the security environment, including the capacity to recognize, understand, and apply security requirements and regulatory compliance in business and institutional contexts, applying modern standards and best practices in managing security processes, implementation, and continuous development of protection systems.
Preparation of risk assessments, security plans, and professional reports, as well as managing documentation in accordance with national and EU standards and regulations.

General competences:
Developed communication skills in both the native language and English, ability to work in a team and use information technologies in crisis situations, critical thinking, decision-making skills, ability for ethical and responsible reasoning and action in professional and social contexts.
Acquired competencies enable employment in public and private sectors, continuation of education, and contribution to society through systematic engagement in the field of protection and rescue.

Graduation from the Professional Undergraduate Study Program in Crisis Management confers the professional title of Bachelor of Engineering in Crisis Management (bacc. ing. admin. chris.) and 180 ECTS credits.

LEARNING OUTCOMES OF THE STUDY PROGRAMME

UKU1: Analyze the national security system and fundamental principles of civil protection.
UKU2: Apply the objectives of security systems and appropriate approaches and operational procedures in managing security risks.
UKU3: Apply concepts, procedures, and methods of crisis management in crisis conditions.
UKU4: Analyze key issues in environmental protection and waste management, and evaluate the effectiveness of prevention and protection measures during production, storage, and transportation of hazardous substances.
UKU5: Apply risk assessment methodology with appropriate documentation to effectively identify threats in crisis situations.
UKU6: Plan reports and action plans for conducting crisis drills and designing crisis response exercises.
UKU7: Prepare civil protection documents.
UKU8: Manage activities within a multidisciplinary team during crisis situations by applying acquired communication skills.
UKU9: Analyze various assumptions, approaches, results, and procedures in security-related issues.
UKU10: Present personal viewpoints, solutions, projects, and ideas regarding crisis management issues.
UKU11: Use information systems and technology for planning, monitoring, and communication in crisis situations.

STUDY PLAN FOR

MANAGEMENT IN CRISIS CONDITIONS PROGRAMME

Course	Status	I.			II.			III.			IV.			V			VI.		
		L	P	S	L	P	S	L	P	S	L	P	S	L	P	S	L	P	S
Civil Defence	Compulsory	2	0	0															
English I	Compulsory	1	1	0															
Computer Science I	Compulsory	2	2	0															
Chemistry of Pollutants	Compulsory	2	1	0															
Mathematics	Compulsory	2	2	0															
Fundamentals of Theory of Systems and Security	Compulsory	2	0	0															
Applied Physics	Compulsory	2	1	0															
Ecology	Elective	2	1	0															
Psychology of Stress	Elective	2	1	0															
English II	Compulsory				1	1	0												
Civil Engineering	Compulsory				2	0	0												
Fundamentals of Technological System Safety	Compulsory				2	1	0												
Natural Threats	Compulsory				2	1	0												
Psychology of Crises	Compulsory				2	1	0												
Statistics	Compulsory				2	1	0												
Terrorism	Compulsory				2	1	0												
Computer Science II	Elective				2	1	0												
Protection of Air Quality	Elective				2	1	0												
Anthropogenic Threats	Compulsory							2	1	0									
English III	Compulsory							1	1	0									
Normative Regulation of Protection and Rescue	Compulsory							2	0	0									
Operative Centres and Communication Systems	Compulsory							2	1	0									
Risk Assessment	Compulsory							2	1	0									
Data Security	Compulsory							2	1	0									
Environmental Geochemisty	Elective							2	1	0									
Crisis Planning	Compulsory										2	1	0						
Logistics and Safety	Compulsory										2	1	0						
Topography and GIS	Compulsory										2	1	0						
Leadership and Commands	Compulsory										2	2	0						
Persons and Assets Protection	Compulsory										2	1	0						
Methods of Environmental Impact Assessment	Elective										2	1	0						
Weapons of Mass Destruction	Elective										2	1	0						
Critical Infrastructure	Compulsory													2	1	0			
Crisis Management	Compulsory													2	1	0			
Project Task	Compulsory													1	3	0			
Medical Care in Crisis Situations	Compulsory													2	1	0			
Communicology	Elective													2	1	0			
Management and Entrepreneurship	Elective													2	1	0			
Crisis Communications	Compulsory																2	1	0
Practical Work	Compulsory																0	8	0
Diploma Thesis	Compulsory																0	3	0
Waste Management	Elective																2	1	0

PROFESSIONAL GRADUATE STUDY PROGRAMME

INFORMATION **SYSTEMS**

The programme is primarily intended for individuals engaged in software engineering and information systems in a broader sense, as well as for those who meet the general and specific admission requirements and aim for professional careers in the design, development, and maintenance of information systems.

Upon completion of the professional graduate study programme, students acquire the knowledge and skills required to work in the areas of development, construction, implementation, and maintenance of information systems.

Professional competences include the use of modern programming tools for structured, procedural, and object-oriented programming (JAVA, PHP, ASP, NET), understanding principles, creation, administration, and maintenance of databases (oracle, mysql, mssql), application of authorization and authentication systems in the development and use of information systems, understanding of systems for ensuring business continuity (disaster recovery).

General competences include the ability to identify, define, and solve engineering problems, use of techniques, skills, and modern engineering tools essential for practice, of the relationship between engineering activities, design, production, marketing, and user needs for products and services, participation in team development, ability to apply knowledge in practice, learn and self-learn, and acquire research skills, ability for critical thinking, decision-making, and acting ethically and responsibly in professional and social contexts.

Upon completion of the professional graduate study program in Information Systems, graduates acquire the professional title Master of Engineering in Information Technologies (mag. ing. techn. inf.) and 120 ECTS credits.

LEARNING OUTCOMES OF THE STUDY PROGRAMME

IS1: Evaluate engineering methods and principles in designing information systems and software.
IS2: Critically analyze the principles of information system operations.
IS3: Analyze and present the use of information systems.
IS4: Propose solutions to engineering problems in the field.
IS5: Analyze the functionalities of modern engineering tools essential for practice.
IS6: Design and develop software applications using modern structured, procedural, and object-oriented programming languages.
IS7: Plan the development of information systems based on user needs.
IS8: Propose improvements in data and system security.
IS9: Analyze the impact of IS characteristics on their performance and security.
IS10: Justify one's views, solutions, and proposals in teamwork.
IS11: Present individual or team-based professional work.
IS12: Apply professional literature and search available information and knowledge bases to solve professional tasks and propose solutions.

STUDY PLAN FOR
INFORMATION SYSTEMS PROGRAMME

Course	Status	I.			II.			III.			IV.		
		L	P	S	L	P	S	L	P	S	L	P	S
Authorization and Authentication	Compulsory	2	1	0									
Databases in Internet Environment	Compulsory	2	2	0									
Information Systems Infrastructure	Compulsory	2	1	1									
Object-oriented Programming	Compulsory	2	2	0									
PHP Web Programming	Elective	1	3	0									
WEB Security	Elective	2	1	1									
Information System Architectures	Compulsory				2	1	1						
Innovation and New Technologies in Information Systems	Compulsory				2	1	1						
JAVA Programming	Compulsory				1	3	0						
Database Management Systems	Compulsory				2	2	0						
Human-Computer Interaction	Elective				2	2	0						
Research Work Methodology	Elective				2	1	1						
Knowledge Base Management Systems	Elective				2	2	0						
Analysis and Design of Information Systems	Compulsory							2	2	0			
Seminar Paper	Compulsory							1	0	3			
Business Processes Management	Compulsory							2	2	0			
Project Management	Compulsory							2	2	0			
Distributed Databases	Elective							2	1	0			
Information Systems Performances	Elective							2	2	0			
Diploma Thesis	Compulsory										1	0	4
Data Retention and Business Continuity	Compulsory										2	2	0
Information Systems Management Strategies	Compulsory										2	1	1
Decision-support Systems	Compulsory										2	2	0
Information Systems in Organizations	Elective										2	1	1
Advanced WEB Programming	Elective										1	3	0

PROFESSIONAL GRADUATE STUDY PROGRAMME

CRISIS MANAGEMENT

The study program is designed to educate professionals capable of independently and effectively managing crisis situations and security systems in accordance with national, European, and international standards.

Through an interdisciplinary approach, students are trained to conduct detailed risk analysis, effectively manage business crises, assess system resilience, develop recovery and business continuity strategies, and coordinate security systems. They develop key competencies in strategic decision-making, crisis communication management, and working in multidisciplinary teams, with a special emphasis on the protection of people, the environment, and critical infrastructure.

Upon completion of the study program, students acquire professional and general competencies necessary for effective management of crises, security, and business continuity, in accordance with current national, European, and international standards.

Professional Competences:
Graduates are qualified to conduct detailed risk analyses, manage emergency situations, lead crisis communication, and coordinate multidisciplinary teams. They understand the importance of data protection, environmental safety, and critical infrastructure, and are capable of identifying and managing security threats across various sectors.Their competencies include strategic decision-making, developing recovery and business continuity programs, and assessing organizational resilience. They provide employers with reliable expert support to enhance security systems and respond effectively to crises, with a strong emphasis on ethical responsibility and continuous professional development.

General Competences:
Students develop communication skills, teamwork abilities, and the use of information technologies in crisis situations. They acquire ethical responsibility, the ability to learn and self-learn using literature and modern self-learning tools, as well as critical thinking, decision-making skills, and the capacity for ethical and responsible reasoning and action in professional and social contexts.

Career Opportunities
The acquired competencies enable graduates to find employment in national and local government bodies, civil protection, security services, the military, police, humanitarian organizations, and the private sector.

Upon successful completion of all exams and required coursework, and the preparation and defense of a master's thesis, students acquire applicable knowledge and skills in crisis management, security planning, and operational response to emergency situations.

Graduates of the Professional Graduate Study Programme in Crisis Management are awarded the academic title Master of Engineering in Crisis Management (mag. ing. admin. chris.) and earn 120 ECTS credits.

LEARNING OUTCOMES OF THE STUDY PROGRAMME

KM1. Apply dynamic crisis models and typologies to adapt to the specifics of various crises and resolve emerging problems.
KM2. Assess the specifics of an emergency situation for the effective establishment of a security system.
KM3. Distinguish between the characteristics of traditional and modern crises to develop new models for responding to contemporary risks.
KM4. Re-examine the origins and sources of business crises.
KM5. Evaluate models of crisis management.
KM6. Lead the crisis management process during critical situations.
KM7. Independently use English in reading professional literature and for professional communication.
KM8. Apply crisis management tools in crisis governance.
KM9. Propose strategic decisions for effective crisis management.
KM10. Apply tools and strategies for crisis communication.
KM11. Independently lead a crisis communication team and manage crisis communication.
KM12. Critically evaluate various threats, measures, and business security systems to make informed decisions.
KM13. Analyze business processes and assess business continuity options in crisis situations.
KM14. Propose ideas, solutions, and projects related to operations under crisis conditions.
KM15. Apply acquired knowledge in further professional work and academic education, with appropriate moral and ethical conduct.
KM16. Self-assess and choose methods for continuous improvement and education in the field of crisis management.

STUDY PLAN FOR

CRISIS MANAGEMENT PROGRAMME

Course	Status	I.			II.			III.			IV.		
		L	P	S	L	P	S	L	P	S	L	P	S
Civil protection	Compulsory	2	1	1									
Corporate Risks and Security	Compulsory	3	1	1									
Disaster Management in EU	Compulsory	2	1	1									
Psychological Aspects of Crisis Management	Compulsory	2	1	0									
Modern Threats and Security	Compulsory	2	0	2									
Resilience of Critical Entities	Compulsory				2	1	1						
Disaster Assessment	Compulsory				1	2	1						
Information and Cybersecurity	Elective				2	1	1						
Business Crises	Elective				2	1	1						
Peacekeeping and Humanitarian Operations	Elective				2	1	1						
Strategic Management of Crisis Communications	Elective				2	1	1						
Protection of Environment and Cultural Assets	Elective				2	1	1						
Design of Exercises for Crisis Situations	Compulsory							2	2	1			
Contemporary Challenges of Crisis Management	Compulsory							2	1	1			
Emergency and Rescue Services	Elective							2	1	1			
Crisis Management in Firefighting	Elective							2	1	1			
Crisis Management in Healthcare	Elective							2	1	1			
Diploma Thesis	Compulsory										0	0	9
Methods of Crisis Research and Management	Compulsory										1	2	5
Information Systems of Crisis Management	Elective										2	1	1

PROFESSIONAL GRADUATE STUDY PROGRAMME

LOGISTICS MANAGEMENT

The professional graduate study program is based on applied knowledge and skills that ensure successful provision of logistical support to complex systems. The program provides the necessary knowledge of logistics management, primarily for individuals who wish to work or are already working in logistics and want to further their education in this field.
Upon completion of the program, students acquire professional competencies in logistics management as well as general competencies.

Professional competences include:

- Selection of analytical and information tools to support and monitor the functioning of logistics systems.
- Analysis of logistics process performance.
- Dimensioning and allocation of logistics resources.
- Proposing elements for optimization of logistics systems and processes.
- Managing procurement and distribution systems of goods and services.
- Fleet management.
- Managing the system for maintenance of technical resources in logistics.
- Applying models and methods for managing logistics processes in accordance with business objectives and company strategy.
- Risk assessment in logistics processes.
- Identifying parameters for the introduction of digital technologies and automated systems.
- Applying principles of sustainable development and environmental protection in planning and implementing logistics processes.
- Planning and managing logistics projects.

General competences include:

- Ability to effectively use English for following literature and professional communication.
- Applying appropriate presentation and communication skills – ability to communicate clearly and effectively with various stakeholders, including teams, clients, and suppliers.
- Adaptability – ability to adjust to changing circumstances and new challenges in logistics.
- Teamwork – ability to collaborate with others to achieve common goals.
- Constructive problem-solving within the professional field – ability to identify problems and find effective solutions in a dynamic environment.
- Knowledge of technology – understanding and using modern technologies and software tools in logistics.
- Ability for critical thinking and decision-making, as well as ethical and responsible reasoning and acting in professional and social contexts.

Upon completion of the professional graduate study program in Logistics Management, students earn the academic title Master of Engineering in Logistics (mag. ing. logist.) and acquire 120 ECTS credits.

LEARNING OUTCOMES OF THE STUDY PROGRAMME

LM1. Analyze issues related to the development of logistics systems.
LM2. Critically compare and interpret the properties and functions of a logistics system.
LM3. Propose an adequate organization of the logistics system for procurement and distribution of goods.
LM4. Recommend an appropriate supply chain information system.
LM5. Analyze the business economics of a company's logistics system.
LM6. Assess relevant indicators of interdisciplinary interactions for analyzing and solving logistics tasks.
LM7. Critically justify personal positions, solutions, and proposals in team work on developmental logistics projects.
LM8. Independently analyze logistics optimization indicators.
LM9. Evaluate the status and perspectives of a logistics system.
LM10. Design proposals for improving logistics systems.
LM11. Propose managerial decisions for planning, organizing, and managing logistics projects.
LM12. Evaluate professional and safety aspects of logistics systems.
LM13. Analyze logistics system costs.
LM14. Assess and implement a quality management system in logistics.
LM15. Present proposed solutions to logistics problems within the development and management of projects.
LM16. Assess the importance of human resource management in the context of logistics development.
LM17. Apply appropriate communication methods, professional terminology, and English language communication in an interdisciplinary environment for solving logistics tasks.
LM18. Evaluate software support for modern methods and tools in addressing sustainability issues in logistics processes.
LM19. Assess logistics services from the perspective of sustainable development and environmental impact.
LM20. Self-assess the need and choose methods for continuous professional development and education in the field of logistics.

STUDY PLAN FOR
LOGISTICS MANAGEMENT PROGRAMME

Course	Status	I.			II.			III.			IV.		
		L	P	S	L	P	S	L	P	S	L	P	S
Company Economics	Compulsory	2	1	1									
Information Systems in Logistics	Compulsory	2	1	1									
Integrated Logistics	Compulsory	2	1	1									
Applied Statistics	Compulsory	2	1	0									
Logistic System Management	Compulsory	2	1	1									
Logistic Processes Optimization	Compulsory				2	1	1						
Procurement Management	Compulsory				2	1	0						
Human Potentials Management	Compulsory				2	1	1						
Company Economics	Compulsory				2	1	1						
E-Logistics	Elective				2	1	0						
Logistics for Special Purposes	Elective				2	1	0						
Business English	Elective				2	1	0						
Maintenance management	Compulsory							2	1	1			
Project Management	Compulsory							2	2	0			
Traffic and Transport Management	Compulsory							2	1	1			
Inventory Management	Compulsory							2	1	1			
Business communication	Elective							2	1	0			
Industrial and organizational psychology	Elective							2	1	0			
Strategic Management in Logistics	Elective							2	1	0			
Diploma Thesis	Compulsory										0	0	4
Entrepreneurship	Compulsory										2	1	0
Finances in Logistics	Elective										2	1	0
Logistic System Security	Elective										2	1	0
Green logistics	Elective										2	1	0

PROFESSIONAL GRADUATE STUDY PROGRAMME

OPTOMETRY

The Professional Graduate Study Programme in Optometry aims to address modern challenges and labor market needs, thereby contributing to the responsible and sustainable development of society. This program is the only one of its kind in the Republic of Croatia, organized according to the latest scientific knowledge and based on advanced professional skills. It is comparable to similar programs offered in EU countries.

The purpose of the study is to prepare qualified and competitive professionals capable of providing primary eye care, assessing visual functions and eye structures, recognizing refractive and functional vision abnormalities, prescribing and fitting visual aids (glasses, contact lenses, or special vision aids), applying vision therapy to restore balanced visual system functioning, advising on vision prophylaxis and ergonomic issues, and conducting scientific research.

Professional Competences

Students gain deep theoretical and practical knowledge focused on selected areas of optometry and related fields to enhance their ability to work in interprofessional teams, use modern techniques, and acquire the fundamentals of scientific work in the field. A graduate of this program can identify visual function requirements and conditions requiring consultation or further procedures, understand the principles of complex optical and ophthalmological devices, provide primary eye and vision care, analyze and compare data to propose optimal solutions for individual vision correction and rehabilitation, conduct research on issues or unresolved problems in vision science and eye care, evaluate strengths and weaknesses in clinical practice.

General Competences

Students will develop the ability to analyze, synthesize, and evaluate information, the ability for independent lifelong learning and decision-making, teamwork and communication skills, managerial and organizational capabilities, and it literacy, ethical behavior, responsibility, and professionalism.

Additionally, they will gain initiative-taking ability and commitment to problem-solving, professional skills such as integrity, confidentiality, and accountability, the ability to use original sources to gather and synthesize information and knowledge, competence in creating a research project or critical review using appropriate research methods and critically evaluating research results.

Upon completion, graduates earn the title Master of Engineering in Optometry (mag. ing. opt.) and acquire 120 ECTS credits.

LEARNING OUTCOMES OF THE STUDY PROGRAMME:

OP1. Identify emergency cases in optometric practice.
OP2. Identify elements of visual perception.
OP3. Recognize pathological conditions requiring referral to an ophthalmologist and assess which diagnostic methods to use.
OP4. Propose visual rehabilitation according to the client's needs.
OP5. Design a research procedure based on ethical principles.
OP6. Recommend individualized vision correction.
OP7. Apply scientific writing methodology based on databases and other research sources.
OP8. Integrate basic computer skills.
OP9. Correlate information from different sources.
OP10. Conduct scientific research and interpret results of various studies.
OP11. Apply socially sensitive communication and advocate for systemic changes to improve Health care communication, disease prevention, and health promotion.
OP12. Argue the need for evidence-based practice in optometry.

STUDY PLAN FOR

OPTOMETRY PROGRAMME

Course	Status	I.			II.			III.			IV.		
		L	P	S	L	P	S	L	P	S	L	P	S
Children's optometry and strabismus	Compulsory	2	0	1									
Business ethics in optometry	Compulsory	2	1	0									
Anterior segment of the eye	Compulsory	2	0	1									
Visual perception and cognition	Compulsory	2	0	1									
Machine technologies in optometry	Elective	2	0	0									
The role of screening in optometry	Elective	2	0	0									
Eye emergencies	Compulsory				2	0	0						
Vision training	Compulsory				1	1	1						
Special contact lenses	Compulsory				2	0	1						
Posterior segment of the eye	Compulsory				2	0	1						
Education and empowerment	Elective				2	0	0						
Introduction to databases for optometrists	Elective				1	1	0						
Neurological disorders of the visual system	Compulsory							2	0	1			
Clinical research methodology	Compulsory							2	1	0			
Other refraction correction techniques	Compulsory							2	0	0			
The effect of various conditions on the eye	Compulsory							2	0	1			
Management of innovations in healthcare	Elective							1	0	1			
Pregnancy and the eye	Elective							2	0	0			
Optometric practice	Compulsory										0	4	1
Diploma thesis	Compulsory										0	0	15

ADDITIONAL INFORMATION

Student Council
The Student Council of Velika Gorica University of Applied Sciences, as a student representative body, protects students' interests, participates in decision-making within the University bodies, and represents students in the higher education system.
By engaging in the work of the Student Council, students can also influence the quality of study programs.
More information about the Student Council can be found on the University website:
https://www.vvg.hr/studenti/

Alumni club
The Alumni Club is an association of graduates of the University, established to maintain connections between alumni and the institution. Through the organization of professional events, international conferences, and symposia, as well as the involvement of alumni in the University's activities, the Club helps develop a pool of qualified experts who may become future lecturers and associates.

STEM Scholarships
All study programs at the University belong to the STEM field, making students eligible to apply for STEM scholarships.

Student Dormitory
Information on accommodation in student dormitories is available at: https://www.sczg.unizg.hr/smjestaj

Student Service
Information about the Student Service can be found at:https://www.sczg.unizg.hr/student-servis

Parking – Discounted Parking Permit
Students of the University have the right to a discounted parking permit. To obtain it, students must request a confirmation of student status and present it along with their student ID card and vehicle registration certificate to VG Komunalac.

Healthcare
Students can access healthcare services at:
Dom zdravlja Velika Gorica
Address: Ul. Matice hrvatske 5, 10410 Velika Gorica
Doctor: dr. Mateja Kopsa Sobota
Phone: 01/6227 555
Email: skolska.medicina.vgorica2@zzjz-zz.hrDom zdravlja Velika Gorica

CONTACT INFORMATION

Contact details of administrative offices, programme heads, and teaching staff are published on the official website.

01/6222-501

info@vvg.hr

www.vvg.hr

Zagrebačka 5, 10410 Velika Gorica