



**Istarsko
veleučilište**
Università
Istria
di scienze
applicate

COURSE CATALOGUE

ACADEMIC YEAR 2024-2025

GENERAL INFORMATION

The Istrian University of Applied Sciences has a long tradition of accepting incoming students. International cooperation provides many benefits, such as knowledge and skills exchange, introduction to foreign markets, cultures, traditions, etc. Furthermore, international cooperation supports personal development on both business and private levels. This brings possibilities for departing students to study abroad, and in doing so, strengthen their labor market competitiveness.

An attractive location in the very south of Istria, in the city of Pula, known as the tourist, industrial, as well as a historical center of our county, offers a wealth of opportunities for the development and advancement of emerging professionals.

Education as the key to sustainable economic and social development is a priority for a stable and secure future. Higher education institutions are one of the fundamental factors for economic growth, prosperity, and competitiveness.

The strengths that we cherish and share with our students are: focus on practical knowledge, application of teamwork in the teaching process, working with small groups which allows us to dedicate more time to student's needs, and last but not least providing professional training in the best companies in our region.

Therefore, our mission as a higher education institution is to educate experts who will contribute to the development and prosperity of our region and state through their knowledge and skills. Our motto "*Knowledge for our development*" will guide us in our mission through the years to come.

Being part of Europe, we also welcome foreign students willing to participate in our educational process so that they can make good use of the provided knowledge back in their home country.

Welcome to the Istrian University of Applied Sciences

Contacts

Address: Istrian University of Applied Sciences

Istarsko veleučilište – Università Istriana di scienze applicate

Riva 6

52100 Pula

Republic of Croatia

Phone: +385 (0)52 381-412

e-mail: dekanat@iv.hr

website: <https://www.iv.hr/en/>

Administrative information

ERASMUS IDENTIFICATION CODE: HR PULA02

OIB (PID): 79550001298

PDV (tax) identification number: HR79550001298

Bank account: OTP banka d.d. IBAN: HR4724070001118015096

Student's office contact

Vladimir Gnip, mag. oec.

Phone: +385 (0)52 381-410

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Team for International Cooperation and Mobility

The main task of the Team for International Cooperation and Mobility is increasing the quality of studies through international cooperation and international mobility, linking higher education and participation in research and professional projects in order to increase economic growth. The members of the Team for International Cooperation and Mobility are available to incoming and outgoing students and staff in solving professional and administrative tasks of mobility programs.

The Team for International Cooperation and Mobility of Istrian University of Applied Sciences consists of three members:

1. Erasmus coordinator and Team leader

Viktor Vojnić, lecturer

e-mail: vvojnic@iv.hr

2. Team member for student support

Ivan Okmaca mag. Inf.

e-mail: iokmaca@iv.hr

3. ECTS coordinator

Sanja Grbac Babić, senior lecturer

e-mail: sgrbac@iv.hr

For any questions and additional information, you can contact our international e-mail: international@iv.hr

Additional services for Students

Every incoming student gets an X-card – which is a student's card used for eating in the student canteen and allows discounts in certain places, but it also confirms the student's status.

1. Students' canteens

The meals for the students of Pula, subsidized through the so-called student X-card are served in a state-of-the-art restaurant and pizzeria opened within the university campus.

Address: Preradovićeva 28b, 52100 Pula

E-mail: restoran@scpu.hr

Website: <https://www.scpu.hr/hr/prehrana/>

2. The University Library of Pula

Incoming students have the right to use the University Library of Pula as a library or a reading room.

Address: Herkulov prolaz 1, 52100 Pula

Telephone: 00385 (0)52 213 888, 00385 (0)52 388 831

Fax: 00385 (0)52214 603

E-mail: skpu@unipu.hr

Website: <http://www.skpu.hr>

3. Public transport

There is a good network of public urban and suburban passenger land transport in Pula. The Company Pulapromet d.o.o. provides its services throughout the territory of the Cities of Pula and Vodnjan and the Municipalities of Medulin, Ližnjan, Fažana, Barban and Marčana.

Website: <http://pulapromet.hr/>

In addition to this company, taxi transport is also available.

4. Online student community for exchange students

Erasmusu is an online international student community that helps students on mobility to find:

- Information about any city (where to eat, where to go out, which places you should visit, etc.);
- Information about the Universities in your destination;
- Blogs about the experiences of people that have been living there (they are really valuable!);
- Forums where you can meet people that have lived there or that is going to be there the same year as you;
- Job / traineeship offers;
- The best accommodations to book through our safe system;

Website: <https://erasmusu.com/>

<https://erasmusu.com/en/erasmus-pula>

ECTS CREDITS

ECTS credits are a numerical value (between 1 and 60) allocated to course units to describe students' workload required to complete them. They reflect the quantity of work each course requires in relation to the total quantity of work required to complete a full year in practical work, seminars, homework, and examination or other assessment activities. Each course does not carry the same number of points but the total number of points in each semester is 30 points which must be evenly distributed on all courses in the semester due to the learner content of each course. All courses are scored – mandatory and elective.

The academic year consists of two semesters, each carrying 30 ECTS points for a total of 60 ECTS points for the academic year. ECTS points are earned and attributed to the student after passing the exam or some other verification of student activities according to the prescribed curriculum (syllabus). These achieved ECTS credits make it easier to assess the level of knowledge that students have when transitioning to other institutions of higher education in the country and/or abroad. At Istrian University of Applied Sciences, 1 ECTS credit corresponds to 30 hours of student load.

The Grading system at the Istrian University of Applied Sciences is as follows:

Numeric grade	Descriptive grade	ECTS grade	Range of points %
5	excellent	A	90.00 – 100.00
4	very good	B	75.00 – 89.99
3	good	C	6.,00 – 74.99
2	sufficient	D, E	50.00 – 59.99
1	insufficient	FX, F	0.00-49.99

CALENDAR OF ACADEMIC YEAR 2024-2025

OCTOBER 2024.

M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER 2024.

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

DECEMBER 2024.

M	T	W	T	F	S	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

JANUARY 2025.

M	T	W	T	F	S	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

FEBRUARY 2025.

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

MARCH 2025.

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

APRIL 2025.

M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

MAY 2025.

M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

JUNE 2025.

M	T	W	T	F	S	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

JULY 2025.

M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

AUGUST 2025.

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

SEPTEMBER 2025.

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

	University day
	Direct teaching (classes)
	Examination period
	Holiday and non-working days
	Working days as needed

Winter semester (classes): 01.10.2024. - 17.01.2025.
Summer semester (classes): 03.03.2025. - 13.06.2025.

Examination periods:
27.01.2025. - 21.02.2025.
16.06.2025. - 11.07.2025.
01.09.2025. - 26.09.2025.

Christmas and New Year holidays: 24.12.2024.-07.01.2025.
Collective vacations are used between 28.07.2025. and 22.08.2025.

HOLIDAYS

01.11.2024. All Saints Day
18.11.2024. The Day of Remembering the Victims of the Croatia War of Independence and the Day of Remembering the Victims of Vukovar and Škabrnja
25.12.2024. Christmas
26.12.2024. Saint Stephen's Day
01.01.2025. New Year's Day
06.01.2025. Three Kings Day (Epiphany)
20.04.2025. Easter
21.04.2025. Easter Monday
01.05.2025. Labor Day
15.05.2025. University day
30.05.2025. Day of Croatia Statehood
19.06.2025. Corpus Christi
22.06.2025. Anti-Fascist Struggle Day
05.08.2025. Victory and Homeland Thanksgiving Day
15.08.2025. Assumption of Mary

STUDY PROGRAMS

In the academic year 2024-2025, four study programs are performed, which are:

1. Professional Undergraduate Study Program in Mechatronics

Duration: 3 years, (6 semesters)

Professional title: professional bachelor (baccalaureus) in the field of mechatronics (bacc. ing. mech.)

Credits: 180 ECTS

Fields of education: mechanical engineering, electrical engineering, automatization, electronics, energetics, informatics.

The undergraduate professional study in Mechatronics combines basic knowledge of mechanical engineering, electrical engineering, computer science, and robotics. It is applicable and sought after in all branches of the economy. The content of the study is focused on new technologies. In the modern world, mechatronics experts are an important part of competitive business. Mechatronics is a very important part of the STEM (science, technology, engineering, and mathematics) field.

Professional bachelors in the field of Mechatronics are creators who apply ideas and knowledge in mechanical and electrical engineering to design complex systems for today's industry.

Advantages of the study program:

- a large number of hours of professional practice enables future bachelors to apply the knowledge acquired in a practical way and get acquainted with the labor market in order to find employment after study
- cooperation with the Research Centre for Metal Industry in Istrian County - METRIS enables the application of acquired knowledge and skills on state-of-the-art analytical equipment in modernly equipped chemical, mechanical, and biotechnical laboratories
- a modern approach to education

Learning Outcomes of the Undergraduate Professional Study Program in Mechatronics

Upon finishing the study program in Mechatronics, students will acquire the following competencies:

Generic competences:

- ability to use a second language in the professional literature and professional communication;
- ability to apply knowledge in mathematics and physics to engineering issues;
- ability to use techniques, skills, and modern tools necessary in engineering practice;
- ability to relate engineering design, manufacturing, and marketing to user's requirements for products and services;
- ability to identify, model, and solve engineering issues.

Personal competencies:

- knowledge of contemporary issues in the professional area and society;
- responsibility, consistency, accuracy, and promptness;
- ethical and moral approach to work;

- critical evaluation of arguments, assumptions, and data in order to make opinions and contribute to the solution of a problem;
- readiness to do fieldwork and work under non-standard conditions;
- work experience with project teams and in the industry;
- presenting information, ideas, problems, and solutions to the professional and general public;
- communication skills in professional communications and with clients in both English and Croatian;
- positive professional and personality traits;
- adaptability to new technologies and techniques as a part of the lifelong learning process;
- openness to new knowledge, experience, and cultural circumstances;
- flexibility and adaptability to finding technical solutions based on unquestionable observance of basic ethical principles, regulations, and professional rules.

Subject-specific competencies:

- ability to design machine elements and circuits taking into consideration the principles of strength, deformation, kinematics, and dynamics;
- ability to propose types of material and technological procedures;
- ability to design and implement hydraulic and pneumatic systems in all technical branches;
- ability to propose sensors, actuators, energy and control units, communication protocols and the accompanying equipment to be used in the automation of various technical processes in mechatronics (electric drives, machine tools, fluid storage processes, heat and transport processes);
- ability to calculate regulator parameters to be used in the regulation of various technical processes in mechatronics;
- ability to design electronic circuits containing microcontrollers by means of EDA tools;
- ability to devise program solutions to embedded computer systems used in various technical processes in mechatronics;
- ability to plan production and projects and optimize resources;
- ability to work out foundations for a modern approach to quality assurance;

Electives:

- ability to control CNC machines, CAD/CAM systems, and flexible manufacturing systems;
- ability to analyze robot and manipulator operations in mechatronics.

Direct classes of each course are held in the form of:

- lectures and/or (L)
- exercises and/or (E)

according to the table that follows.

	NAME OF THE COURSE	Weekly teaching load		ECTS	TEACHER
		L	E		
1. semester	Mechanics and Strength of Materials	2	3	6	Neven Munjas
	Mathematics	3	3	7	Đani Žufić
	Sensors	2	2	5	Sanja Grbac Babić
	Computers Application Basics	1	2	3	Marko Turk
	Programming Basics	1	3	5	Marko Turk
	Technical Documentation	1	3	4	Ivan Pentek
2. semester	Matlab	1	2	3	Matko Glučina / Zoran Šverko
	Physics	2	3	6	Deni Vale
	Mechatronic Machine Elements	2	2	5	Neven Munjas
	Fundamentals of Electrical Engineering	2	3	6	Nino Stojković / Zoran Šverko
	Applied Mathematics	3	1	5	Deni Vale
	Materials and Manufacturing Processes	2	2	5	Davor Stanić
3. semester	Electronic Elements and Circuits	2	2	5	Sanja Grbac Babić
	Dynamic System Modelling	3	1	5	Deni Vale
	Power Electrical Engineering	2	3	6	Vesko Nikolaus
	Computer Aided Design	2	3	5	Ivan Pentek
	Essentials of Mechanisms	2	2	5	Roberto Žigulić / Neven Munjas
	English Language in Mechatronics	2	2	4	Viktor Vojnić
4. semester	Elements of Automation	2	2	5	Vesko Nikolaus
	Pneumatics and Hydraulics	2	3	6	Goran Gregov
	Processing Computers	2	3	6	Matko Glučina
	Automatic Control	2	2	5	Goran Gregov
	Business English Language in Mechatronics	2	2	4	Viktor Vojnić
	<i>Structure and Properties of Technical Materials – elective course</i>	3	1	4	Irina Pucić
5. semester	Electrical Drives	2	2	5	Matej Kolarik
	Communication Techniques in Mechatronics	2	1	4	Sanja Grbac Babić / Deni Vale
	Metrology and Quality Control	2	2	4	Vedrana Špada
	Maintenance of Technical Systems in Mechatronics	2	1	4	Davor Stanić
	Embedded Systems Design	2	2	5	Deni Vale
	Production and Project Management	2	1	4	Ivan Pentek
	<i>Computer networks - elective course</i>	2	2	4	Dino Krivičić
	<i>Leadership skills - elective course</i>	2	2	4	Dijana Drandić
6. semester	Methodology of Professional and Scientific Research	1	2	4	Dijana Drandić
	Organization Architecture	2	2	4	Daglas Koraca / David Košara
	Manipulators and Robots	1	2	3	Matko Glučina
	Professional Practice	0	240	7	
	Bachelor's Thesis			12	

2. Professional Graduate Study Program in Creative Management in Processes

Duration: 2 years (4 semesters)

Professional title: professional specialist in the field of creative management (mag. oec.)

Credits: 120 ECTS

Fields of education: management, organization, entrepreneurship

The study of Creative Management in Processes empowers professionals ready to be proactive in responding to contemporary business challenges. The study is based on knowledge and skills in the fields of management, entrepreneurship, organization, and informatics.

Upon graduation, professional specialists in the field of Creative Management are capable of management at a high organizational level of business. Acquired skills from various fields enable the development of experts who will make a significant contribution to the success of companies in the domestic and foreign markets with their knowledge. Professional specialists in the field of Creative Management utilize acquired knowledge and skills to analyze, manage, optimize, and automate business processes.

Studying Creative Management in Processes is an ideal continuation of education for anyone who wants to develop the social skills and techniques necessary for contemporary executives.

Advantages of the study program:

- individualized work in small groups enables students to easily acquire and apply knowledge through concrete examples from practice
- the contemporary social study with a developed curriculum equips professionals to meet the needs of the everyday business environment,
- the contemporary interdisciplinary knowledge and skills acquired throughout the course of the study are applicable at almost all managerial business levels.

By applying creative methods and techniques to effectively manage processes, professional specialists in the field of Creative Management improve business results and create new values for themselves as individuals, as well as for employers and society.

Direct classes of each course are held in the form of:

- lectures and/or (L)
- exercises and/or (E)
- seminars (S)

according to the table that follows.

	NAME OF THE COURSE	Weekly teaching load			ECTS	TEACHER
		L	E	S		
1. semester	Creative Management	3	0	1	8	Vladimir Filipović
	Marketing Management	3	2	0	8	Boris Marjanović
	Basics of Methodology for Scientific Research	3	0	1	6	Dijana Drandić
	Assessment of Creditworthiness	1	3	0	4	Andrea Vareško
	Business Communication in English 1	1	0	2	4	Viktor Vojnić
2. semester	Project Management	3	2	0	8	Andrea Vareško
	Business Communication	2	1	0	4	David Košara
	Communication Skills	2	0	1	4	Mario Bogdanović
	Product and Service Branding	2	2	0	4	Boris Marjanović / David Košara
	Service Quality Management	2	0	1	4	Albert Mendica
	Computer skills	1	0	2	4	Dino Krivičić
	<i>Introduction to consumer behavior – elective course</i>	1	0	1	2	David Košara
3. semester	Process Management	3	2	0	8	Mario Bogdanović
	Financial Management	3	2	0	8	Daglas Koraca
	Marketing Communications	2	0	2	6	Boris Marjanović
	Business Communication in English 2	1	3	0	4	Viktor Vojnić
	Entrepreneurship	2	2	0	4	Edo Cetina
4. semester	Corporate Social Responsibility	2	0	1	4	Daglas Koraca
	Intercultural Aspects of Management	2	0	1	4	Dijana Drandić
	Professional practice	0	120	0	10	
	Master's Thesis				12	

Learning Outcomes of the Specialist Graduate Study in Creative Management in Processes

- critically evaluate the effects of implementing the generated ideas on business;
- evaluate the key features of digital business;
- apply scientific research methods and formulate the concept of the thesis;
- analyze teamwork performance in accordance with team development characteristics;
- critically evaluate the effects of project implementation;
- evaluate opportunities for implementing marketing strategies under the given conditions;
- identify and critically analyze the underlying assumptions of communication competence in the business environment;
- optimize the business process using modern methods and tools;
- evaluate the profitability of the business investment and the real time for the return on investment, and the implications for the business operator;
- evaluate investment in human resources through the concept of creating new value;
- critically evaluate the importance of implementing entrepreneurial strategies within the available resources;

- evaluate the importance of accounting indicators in strategic planning;
- assess the impact of corporate social responsibility on the economy and sustainable development;
- analyze and compare the influence of certain characteristics of the culture of society on the functioning of contemporary management.

3. Professional Graduate Study Program in Mechatronics

Duration: 2 years, (4 semesters)

Professional title: Master of Mechatronics Engineering (mag. ing. mech.)

Credits: 120 ECTS

Filed of education: mechanical engineering, electrical engineering, automatization, electronics, energetics, informatics

The professional graduate study in Mechatronics provides the necessary knowledge and skills to perform highly specialized engineering jobs. Students will acquire appropriate competencies in current mechatronic technologies that will enable them to successfully perform the most demanding professional tasks and face the research and development challenges of the present and future in the wider field of mechatronic engineering, combining electronics and mechanics, such as robotic systems or electric vehicles.

Specialist knowledge and skills will not only enable faster integration into production processes but also provide a basis for understanding and further monitoring of development trends in specific specialist areas of mechanical engineering/mechatronics.

The study program is based on the synergy of industry and higher education and is supported by the active role of the economy, in such a way that students must undergo professional practice in economic entities, by organizing professional visits, fieldwork and exercises, specialist practice, participation in research projects, and practical work in laboratories, which enables them to be quickly employable in the Republic of Croatia and abroad.

PROFESSIONAL PRACTICE:

Students of the Istrian University of Applied Sciences complement the theoretical knowledge gained in classes during their studies with high-quality practical work that they perform as part of professional practice, with the aim of quality preparation for the end of their studies and easier inclusion in the labor market.

Student practice is a mandatory part of study programs at the University.

Advantages of the study program:

- individualized work in small groups enables students to easily acquire and apply knowledge through concrete examples from practice,
- cooperation with the Research Centre for Metal Industry in Istrian County - METRIS enables the application of acquired knowledge and skills on state-of-the-art analytical equipment in modernly equipped chemical, mechanical, and biotechnical laboratories,
- a modern approach to education.

Direct classes of each course are held in the form of:

- lectures and/or (L)
- exercises and/or (E)

according to the table that follows.

	NAME OF THE COURSE	Weekly teaching load			ECTS	TEACHER
		L	E	S		
1. semester	Mathematics in engineering	3	2	0	5	Đani Žufić
	Vibration	2	1	0	5	Roberto Žigulić
	Application and Control of Electrical Drives	2	2	0	5	Matej Kolarik
	Strength of Materials	2	3	0	5	Neven Munjas
	Thermodynamics	2	2	0	5	Neven Munjas
	Materials engineering	2	2	0	5	Vedrana Špada / Josipa Bilić
2. semester	Machine Elements	2	3	0	5	Ivan Pentek
	Power Electronics	2	2	0	5	Sanja Grbac Babić / Zoran Šverko
	Advanced Programming	2	2	0	5	Marko Turk
	Embedded Systems Programming	1	3	0	5	Deni Vale / Marko Turk
	Neural Networks	3	1	0	5	Matko Glučina
	<i>Numerical Methods - elective course</i>	3	2	0	5	Đani Žufić
	<i>Testing of Materials and Fractography - elective course</i>	1	2	0	5	Vedrana Špada
	<i>Industrial Metrology - elective course</i>	2	2	0	5	Vedrana Špada / Josipa Bilić
<i>Project Management - elective course</i>	3	2	0	5	Andrea Vareško	
3. semester	Modeling and Simulation of Hydraulic and Pneumatic Systems	3	2	0	5	Goran Gregov
	Simulations of Dynamic Systems	2	1	0	5	Roberto Žigulić
	Artificial Intelligence	2	2	0	5	Marko Turk
	Production Engineering	2	2	0	5	Davor Stanić
	Industrial and Mobile Robotics	2	2	0	5	Matko Glučina
	<i>Advanced Technical Materials - elective course</i>	3	1	0	5	Irina Pucić
	<i>Marketing for Engineers - elective course</i>	2	2	0	5	David Košara
	<i>Entrepreneurship - elective course</i>	2	1	0	5	Edo Cetina
4. semester	Research Methodology	2	0	1	5	Dijana Drandić
	<i>Electrical Filters - elective course</i>	2	1	0	5	Nino Stojković
	<i>Management and Organization - elective course</i>	3	1	0	5	Daglas Koraca
	<i>Finance Control - elective course</i>	1	3	0	5	Andrea Vareško
	Professional Practice	0	240	0	8	
	Master's Thesis				12	

Learning Outcomes of the study program:

- Organize engineering business processes through teamwork and project collaboration.
- Continuously improve one's own competencies as part of the process of lifelong learning based on the needs arising from the development of new technologies and techniques.
- Present professional content and communicate information, challenges, solutions and requirements of the profession in an international environment.
- Assess the impact of mechatronics on society and the environment based on moral and ethical attitudes, legal norms and rules of the profession within engineering problems.
- Develop responsibility, consistency, accuracy and promptness in the performance of work duties.
- Test and critically analyze various technical systems, circuits and components from the field of mechatronics.
- Identify, formulate and solve complex engineering requirements by choosing appropriate multidisciplinary tools, laboratory experiments, as well as methods and procedures in production and technical systems.
- Apply advanced mathematical, computer and technical tools in the analysis and synthesis procedures of mechatronic components, devices and systems.
- Create innovative solutions in the analysis, development, monitoring and maintenance of mechatronic components, structures, machines, devices and equipment.
- Independently manage electromechanical and energy automated systems widely used in modern technological processes.
- Evaluate the relevant physical, chemical and mechanical properties of widely applicable technical materials and the principles of their selection and use.
- Analyze complex hydraulic and pneumatic systems in mobile and industrial plants.
- Plan the development, production, protection, maintenance, and supervision of technical systems, assemblies and components while respecting the requirements and restrictions imposed by relevant norms and laws, price, time frame, quality, work safety, and environmental impact.
- Recommend engineering solutions based on the system model, simulations, measurement of relevant components and valid technical standards with the creation of accompanying technical documentation.
- Manage business processes taking into account the specificity of the production process.
- Manage and plan production processes and anticipate difficulties and problems that may arise in specific production.
- Choose algorithms for modeling and creating automated technological systems based on the use of computers.
- Solve problems in the field of production automation using techniques, methods and tools from the field of flexible production systems, as well as industrial and mobile robotics.

4. Professional Undergraduate Study Program in Gastronomy Management and Food Culture¹

Duration: 3 years, (6 semesters)

Professional title: Professional Bachelor of Gastronomy Management and Food Culture (bacc. oec.)

Credits: 180 ECTS

Filed of education: management, organization, entrepreneurship

The Professional undergraduate study Gastronomy Management and Food Culture is a link between hospitality, hotel and tourism, and agriculture with the aim of valorizing Istrian gastronomy.

Students are enabled to apply the acquired knowledge and skills on top-of-the-line equipment in modernly equipped laboratories: biotechnical, chemical, genetic, pedological, food-biotechnical, wine, as well as laboratories for phenotyping and plant protection.

Students have the opportunity to feel and explore all the elements of food and thus design a tourist offer and raise the value of Istria as a gastronomic and tourist destination important for the development of the entire community.

PROFESSIONAL PART OF TEACHING – EXERCISES IN LABORATORIES

The professional part of classes in the Gastronomy Management and Food Culture program will be held as part of:

- the laboratory of the Istrian University of Applied Sciences (Metris Research Center)
- Educational and Gastronomic Center of Istria in Pazin (Agency for Rural Development of Istria - AZRRI) and
- Laboratories of the Institute for Agriculture and Tourism in Poreč

as a link between the agricultural and hospitality-tourism sectors in order to valorize Istrian gastronomy.

PROFFESIONAL PRACTICE:

Students of the Istrian University of Applied Sciences complement the theoretical knowledge gained in classes during their studies with high-quality practical work that they perform as part of their professional practice, with the aim of quality preparation for the end of their studies and easier inclusion in the labor market.

Student practice is a mandatory part of the study programs at the University.

Advantages of the study program:

- individualized work in small groups enables students to easily acquire and apply knowledge through concrete examples from practice,
- cooperation with the Research Centre for Metal Industry in Istrian County - METRIS enables the application of acquired knowledge and skills on state-of-the-art analytical equipment in modernly equipped chemical, mechanical, and biotechnical laboratories,
- a modern approach to education.

Direct classes of each course are held in the form of:

- lectures and/or (L)

¹ A new study program for which only the first and the second year of study is conducted in the academic year 2024-2025

- exercises and/or (E)
- seminars (S)

according to the table that follows.

	NAME OF THE COURSE	Weekly teaching load			ECTS	TEACHER
		L	E	S		
1. semester	Basics of Accounting	2	1	1	6	Andrea Vareško
	Microeconomics	2	0	1	5	Edo Cetina
	Management	2	0	2	6	Daglas Koraca
	Entrepreneurship in Gastronomy and Tourism	2	0	1	5	Albert Mendica
	Business Informatics	1	1	0	3	Dino Krivičić
	Basics of Hospitality	2	2	0	5	Edmondo Šuran
2. semester	Marketing in Gastronomy	2	0	2	6	Boris Marjanović
	Financial Management	2	0	2	6	Daglas Koraca
	Vegetables, Medicinal and Wild Herbs as Functional Food	2	2	0	6	Smiljana Goreta Ban
	Basic Nutrition Knowledge	2	0	2	6	Jasenska Kapuralin
	English Language in Gastronomy	1	1	0	3	Viktor Vojnić
	Rural Entrepreneurship (elective)	1	0	1	3	Edo Cetina
	Italian Language in Gastronomy 1 (elective)	1	1	0	3	Lorena Lazarić
3. semester	Applied Food Technology 1	2	0	2	6	Jasenska Kapuralin
	Fruit Species as a Source of Phytonutrients	2	1	0	6	Igor Pasković
	Winemaking	2	2	0	6	Sanja Radeka
	Basics of Agricultural Management	1	0	2	4	Edo Cetina
	Economics of Tourism	1	0	2	4	Andrea Vareško
	Management of Entrepreneurial Projects	1	0	2	4	Edo Cetina
4. semester	Applied Food Technology 2	2	0	1	5	Edmondo Šuran
	Production, Knowledge and Culture of Using Virgin Olive Oil in Gastronomy	2	2	0	5	Katarina Brkić Bubola
	Wine Sensory	2	2	0	5	Sanja Radeka
	Food Chemistry 1	2	2	0	5	Igor Lukić
	Business English in Gastronomy	1	1	0	3	Viktor Vojnić
	Professional Practice 1	0	130	0	4	Josipa Bilić
	<i>Italian Language in Gastronomy 2 – elective course</i>	1	1	0	3	Lorena Lazarić
	<i>Sustainable Development – elective course</i>	1	0	1	3	Smiljana Goreta Ban / Silvia Buttignoni

Learning Outcomes of the study program:

- Apply financial and accounting regulations to the operations of the company or one of its parts
- Carry out financial planning of the company based on the collected information and its analysis

- Analyze the microeconomic environment, models and policies with the purpose of making optimal business decisions
- Create a plan of marketing activities respecting modern approaches and strategies
- Apply the conclusions of the business project analysis through the creation and monitoring of the implementation of the business plan
- Adapt the form and operation of the company to the most important external conditions (business infrastructure, market needs, legal regulations)
- Connect the basic principles of economic theory with the main features of management in gastronomy with a special emphasis on tourism
- Organize the operation of the catering facility and the functioning of the catering offer, respecting contemporary world trends
- Create contemporary entrepreneurial projects in the field of gastronomy and tourism
- Apply knowledge of Croatian and other foreign languages in business communication
- Apply modern information and communication technologies in business
- Plan the application of modern technological processes in the field of food and beverage production and processing, in accordance with the highest sanitary standards
- Independently classify and distinguish different groups of chemical ingredients and nutritional characteristics of foods used in the gastronomic offer
- Identify trends and propose innovative solutions to improve the gastronomic and tourist offer
- Valuing indigenous and local products and stating their advantages when designing the gastronomic offer
- Communicate in an appropriate way with stakeholders in the tourist destination, respecting the rules of intercultural communication
- Take personal and team responsibility based on the principles of ethics and socially responsible business
- To value the role of heritage, identity and authenticity in the development of a sustainable offer of a tourist destination
- Ensure ecological sustainability of business in the field of gastronomy
- Design a business plan for the gastronomic offer and business in rural areas
- Interpret the role of food as a sociological and cultural phenomenon.