UNIVERSITETI I EVROPËS JUGLINDORE
УНИВЕРЗИТЕТ НА ЈУГОИСТОЧНА ЕВРОПА
SOUTH EAST EUROPEAN UNIVERSITY

Study program	Business Analytics and Artificial Intelligence (2026/2027)
Faculty	Business and Economics
Study Cycle	First Cycle (Undergraduate)
ECTS	240
Code	BAAI-240
Title	Bachelor of Economics in Business Analytics and Artificial Intelligence
Accreditation date	29.04.2026

Description of the program

The Business Analytics and Artificial Intelligence study program is designed to respond to the increasing demand for professionals who can combine business knowledge with advanced analytical and artificial intelligence skills. Modern organizations rely on data-driven decision-making, predictive analytics, and intelligent systems to remain competitive in a rapidly evolving digital economy. The program integrates core business disciplines with modern analytical tools, programming skills, and artificial intelligence applications. Students develop competencies in data analysis, machine learning, database systems, and digital business strategy, while maintaining a strong foundation in economics, finance, management, and marketing. A particular emphasis is placed on the practical application of analytics and AI in business environments, including supply chain management, financial analysis, digital transformation, and strategic decision-making. Students gain experience with programming languages such as Python and analytical tools used for business intelligence, data mining, and machine learning. The program also reflects the growing importance of ethical governance of artificial intelligence, digital transformation, and the use of intelligent systems in organizations. Through courses such as AI Regulation, Governance and Ethics, Intelligent Systems and Agentic AI, and Machine Learning, students acquire the knowledge required to responsibly develop and implement AI-driven solutions.

The study program prepares graduates for careers such as:

- Business Analyst
- Data Analyst
- AI Business Specialist
- Business Intelligence Analyst
- Digital Transformation Consultant
- Data-driven Strategy Analyst

Graduates may also continue their studies in postgraduate programs in business analytics, artificial intelligence, digital business, or data science. The program also addresses ethical and regulatory aspects of artificial intelligence. Students gain knowledge about responsible use of AI, algorithmic transparency, and governance frameworks that are increasingly required in modern organizations and in European regulatory frameworks.

Career

Graduates of this program are prepared for careers in fields that integrate data analysis with business decision-making, including roles such as business analyst, data analyst, AI business specialist, and digital transformation consultant. They possess competencies in the use of analytical tools, machine learning techniques, and programming languages for data analysis and for supporting organizational strategies, and can be employed across various sectors such as finance, marketing, information technology, and consulting services..

Learning outcomes

Knowledge and understanding

Graduates of the Business Analytics and Artificial Intelligence study program acquire:

Core Business Knowledge

A solid understanding of fundamental business concepts including management, finance, marketing, operations, and strategic decision-making processes.

Quantitative and Analytical Knowledge

Knowledge of statistical methods, mathematical modeling, and data analysis techniques used for solving complex business problems.

Data Management and Technologies

Understanding of data structures, databases, data warehousing, and modern data processing platforms used for storing and managing large datasets.

Business Intelligence and Analytical Tools

Knowledge of analytical software and programming environments used in business analytics such as Excel, SQL, Python, R, Tableau, and Power BI for data analysis, visualization, and reporting.

Artificial Intelligence and Machine Learning

Understanding of fundamental concepts of artificial intelligence, machine learning algorithms, and predictive analytics methods applied in business contexts.

Data Engineering and Cloud Technologies

Knowledge of data engineering principles and cloud computing technologies used for large-scale data processing and analytical systems.

Data-Driven Problem Solving

Understanding of how analytical insights can be integrated into business decision-making to improve operational efficiency, strategic planning, and organizational performance.

Ethics and Data Governance

Awareness of ethical considerations, data privacy principles, and legal regulations governing the responsible use of data and artificial intelligence technologies.

Emerging Digital Technologies

Knowledge of current technological trends including artificial intelligence, big data analytics, and cloud computing and their implications for modern organizations.

Applying knowledge and understanding

Graduates of the Business Analytics and Artificial Intelligence study program will be able to:

Apply Analytical Methods to Real-World Problems

Use statistical, quantitative, and computational methods to analyze business data and generate actionable insights for organizational decision-making.

Utilize Business Intelligence Tools

Apply analytical tools and programming environments such as Excel, SQL, Python, R, and data visualization platforms (e.g., Tableau and Power BI) to analyze data and support managerial decision-making.

Develop Data-Driven Solutions

Design and implement analytical models and predictive algorithms to improve operational efficiency, marketing strategies, financial performance, and customer experience.

Conduct Independent Data Analysis

Identify relevant data sources, collect and prepare datasets, and perform analytical evaluations to support business decisions and strategic initiatives.

Integrate Analytics into Business Functions

Translate analytical findings into business insights that support decision-making in areas such as supply chain management, finance, marketing, and human resource management.

Support Data-Driven Decision-Making

Apply analytical results and data insights to support strategic and operational decisions in dynamic business environments.

Develop Analytical Reports and Dashboards

Design dashboards, visualizations, and analytical reports that communicate complex data insights clearly to different stakeholders.

Apply Ethical and Legal Principles in Data Use

Use data responsibly by respecting principles of data governance, ethical data usage, and relevant legal and regulatory frameworks.

Entrepreneurial and Innovation Skills

Apply analytical and technological knowledge to identify new business opportunities and support the development of data-driven entrepreneurial initiatives.

Making judgement

Graduates of the Business Analytics and Artificial Intelligence study program will be able to:

Critically Evaluate Data and Analytical Results

Assess the quality, reliability, and validity of data sources and analytical outputs, identifying potential biases, limitations, and risks in analyses.

Interpret Analytical Findings in Business Contexts

Relate quantitative results to business objectives, market dynamics, and organizational strategies in order to support informed decision-making.

Select Appropriate Analytical Methods and Tools

Evaluate and choose suitable analytical techniques, models, and software tools depending on the nature of the business problem and the characteristics of the data.

Integrate Analytical Insights with Business Considerations

Balance quantitative evidence with qualitative factors, ethical implications, and organizational constraints when evaluating alternative solutions.

Identify Opportunities and Risks Using Data

Analyze business environments and datasets to detect strategic opportunities, potential risks, and emerging trends relevant to organizational performance.

Develop Evidence-Based Recommendations

Formulate well-supported recommendations and strategic insights based on analytical evidence and sound reasoning.

Demonstrate Independent and Critical Thinking

Approach complex business and analytical challenges independently, applying critical thinking and analytical rigor in problem-solving.

Communication skills

Graduates of the Business Analytics and Artificial Intelligence study program will be able to:

Present Analytical Results Clearly

Communicate complex analytical findings and technical information in a clear, concise, and structured manner to both technical and non-technical audiences.

Develop Effective Data Visualizations

Design charts, dashboards, and analytical reports that effectively communicate insights and support data-driven decision-making.

Prepare Professional Analytical Reports

Produce well-structured written reports documenting analytical methods, results, and business recommendations.

Adapt Communication to Different Stakeholders

Adjust communication style and content to suit different audiences, including managers, executives, clients, and technical specialists.

Collaborate in Multidisciplinary Teams

Work effectively in cross-functional teams, sharing analytical insights, contributing to discussions, and integrating feedback from diverse perspectives.

Translate Technical Concepts into Business Language

Explain analytical models, statistical results, and technological concepts in a clear and understandable way that supports managerial decision-making.

Advocate Data-Driven Decision Making

Present and defend analytical conclusions and recommendations using evidence-based reasoning.

Learning skills

Graduates of the Business Analytics and Artificial Intelligence study program will be able to:

Engage in Lifelong Learning

Continuously update their knowledge and skills in response to evolving technologies, analytical tools, and business practices in the field of data analytics and artificial intelligence.

Independently Acquire New Knowledge

Identify personal learning needs and independently access relevant resources such as academic publications, professional training, and digital learning platforms.

Adapt to Emerging Technologies

Learn and apply new programming languages, analytical methods, and technological tools relevant to business analytics and artificial intelligence.

Reflect on Personal Learning and Development

Evaluate their own learning processes and outcomes in order to improve analytical competencies and professional performance.

Research and Evaluate Information

Identify, critically assess, and integrate information from diverse sources to support analytical work and decision-making.

Develop Problem-Solving Strategies

Apply analytical thinking and learning strategies to address unfamiliar problems and develop innovative data-driven solutions.

Participate in Professional Development

Engage in professional training, workshops, certifications, and other learning opportunities to enhance expertise in business analytics and related digital technologies.

List of courses

Semester 1

- [C2640] [6.0 ECTS] **Principles of Management**
- [C2638] [6.0 ECTS] **Fundamentals of Economics and Business**
- [C2639] [6.0 ECTS] **Business Mathematics**
- [C2121] [3.0 ECTS] **Business, Government and Society**
- [C2861] [3.0 ECTS] **Business Communication**
- [3.0 ECTS] **English Language**
- [3.0 ECTS] **Albanian/Macedonian Language**

Semester 2

- [CBE-302] [6.0 ECTS] **Business Calculus**
- [CBE-203] [6.0 ECTS] **Microeconomics**
- [C2641] [6.0 ECTS] **Principles of Marketing**
- [C2120] [6.0 ECTS] **Principles of Accounting**
- [3.0 ECTS] **Albanian/Macedonian Language**
- [3.0 ECTS] **English Language**

Semester 3

- [EBE-410] [6.0 ECTS] **Business Law**
- [CBE-402] [6.0 ECTS] **Financial Accounting**
- [CBE-303] [6.0 ECTS] **Macroeconomics**
- [C2864] [6.0 ECTS] **Statistics for Business**
- [3.0 ECTS] **English Language**
- [3.0 ECTS] **Elective/Digital Comptenecies**

Semester 4

- [CBEM-603] [3.0 ECTS] **Organizational Behavior**
- [C2130] [3.0 ECTS] **International Business**
- [C2124] [6.0 ECTS] **Business Information Systems**
- [CBE-401] [6.0 ECTS] **Operations Management**
- [CBM-502] [6.0 ECTS] **Corporate Finance**
- [3.0 ECTS] **English Language**
- [3.0 ECTS] **Elective/Digital Comptenecies**

Semester 5

- [ECS-609] [6.0 ECTS] **Introduction to Artificial Intelligence**
- [C2306] [6.0 ECTS] **Programming in Python**
- [C2865] [3.0 ECTS] **AI Regulation, Governance and Ethics**
- [C2126] [3.0 ECTS] **Supply Chain Management**
- [6.0 ECTS] **Elective from other unites**
- [6.0 ECTS] **Business Elective Course**

Semester 6

- [C2128] [6.0 ECTS] **Strategy and Organization**
- [CCS-403] [6.0 ECTS] **Databases**
- [ECS-604] [6.0 ECTS] **Data Mining**
- [6.0 ECTS] **Elective from other unites**
- [6.0 ECTS] **Business Elective Course**

Semester 7

- [ECS3080] [6.0 ECTS] **Machine Learning**
- [C2872] [6.0 ECTS] **Data Engineering**
- [E2591] [6.0 ECTS] **Digital Business**
- [C2134] [6.0 ECTS] **Business Analytics and Modeling**
- [6.0 ECTS] **Avanced elective courses**

Semester 8

- [CBEE-603] [6.0 ECTS] **Econometrics**
- [C2866] [6.0 ECTS] **Intelligent Systems and Agentic AI**
- [C2322] [6.0 ECTS] **Cloud Infrastructure and Technologies**
- [C2867] [6.0 ECTS] **Capstone Project**
- [6.0 ECTS] **Avanced elective courses**

Description of courses

Core courses

- **Principles of Management**
  The subject aims to acquaint students with the essence of management and create a base which will be supplemented by other managerial and organizational subjects that students will listen to during their study. This subject has several main purposes, including: Students understand and clarify key management concepts and theories. - To initiate critical thinking in the classroom. - To enable students to use the information gained to give

assessments and construct arguments. - To develop students' communication skills. - To inform students about the management process and the tasks of the manager. - To inform students about the planning process. - To inform students with decision-making processes and models. - To acquaint students with the organization, including the division of labor and the breadth and depth of management. - Students should be able to apply in practice knowledge on individual-organizational relationships and various elements related to organizational behavior, including personality, behaviors and perceptions. - Students gain knowledge on motivation and motivation theories.

- **Fundamentals of Economics and Business**
  Objectives: ? To understand the fundamental concepts of economics and business. ? To develop the ability to analyze the relationship between economic factors and business decisions. ? To enable students to use basic economic and business terminology. ? To foster critical thinking and the ability to connect theory with real market practices. Upon completion of the course, the student will be able to: ? Explain the fundamental concepts of economics and business. ? Identify the factors influencing the functioning of markets and enterprises. ? Apply basic knowledge to analyze simple economic and business situations. ? Effectively communicate economic and business ideas.

- **Business Mathematics**
  Course Objectives: - Students will be encouraged to actively participate in discussions and solve various tasks and problems related to mathematics. - Students will become familiar with the basic concepts of linear algebra and apply their knowledge through linear models in the fields of Energy, Economy and Environment. - Students will gain a solid understanding of arithmetic and geometric progressions and apply them to solve various problems in Energy, Economy and Environment. - Students will acquire sufficient knowledge in financial mathematics and apply it to the fields of Energy, Economy and Environment.

- **Business, Government and Society**
  The subject aims to create, develop, and advance students' knowledge in the field of relations between business, government institutions, and society. Through this subject, students will acquire basic and practical knowledge regarding: • the importance of BGS for future managers and professionals; • corporations and their stakeholders; • public affairs management and stakeholder relations; • business operations in a globalized world; • organizational ethics and responsibility; • the business–government relationship; • the role of technology and its impact on social and economic relations; • contemporary challenges in the interaction between economic development, governance, and public interest.

- **Business Communication**
  The aim of this course is to introduce students to the fundamental principles of business communication and to develop their ability to communicate effectively in professional and organizational environments. The course focuses on improving verbal, non-verbal, written, and digital communication skills that are essential for collaboration, negotiation, and professional interaction in modern business organizations. After completing this course students will be able to: 1. Understand the principles and importance of business communication in organizations. 2. Apply verbal and non-verbal communication techniques in professional contexts. 3. Prepare clear and effective written business documents such as emails, reports, and memos. 4. Demonstrate effective communication skills in meetings, presentations, and negotiations. 5. Use digital communication tools appropriately in professional environments. 6. Communicate ideas clearly and professionally in multicultural and organizational settings.

- **Business Calculus**
  The Calculus course is designed to provide students with an understanding of the fundamental concepts and their practical applications in the fields of business, economics, and finance. Students should be able to apply calculus techniques to solve real-world problems involving optimization, marginal analysis, and economic modeling. Learning Outcomes: - Students will understand the main concepts of calculus including limits, derivatives, and integrals, as well as continuity, differentiability, and optimization. - Will be able to apply mathematical techniques to economic models to analyze cost functions, revenue models, and profit maximization. Understand the relationships between marginal cost, marginal revenue, and marginal profit. - Solve optimization problems and interpret mathematical results in the context of business and economic decisions.

- **Microeconomics**
  The subject aims to introduce students to the principles and concepts of Microeconomics, which will introducs and enable Business and Economics students with the necessary analytical tools and techniques to analyze and provide solutions to relevant and current issues in the field of Microeconomics. This subject will equip students with theoretical and practical knowledge as follows: 1. Demand and supply analysis and market equilibrium; 2. Elasticity

and its application, 3. Cost analysis and their application; 4. Analysis of profit maximization in all types of competition; 5. Full and incomplete competition; and 6. Government and microeconomics.

- **Principles of Marketing**
  This course offers students an overview of marketing functions, with an emphasis on creating value through marketing, market research, consumer behavior, pricing strategies, marketing channels and distribution, and promotion methods. Students will be able to: ? understand the role of marketing within society and within the economic system. ? learn the vital role of marketing within a firm and the necessary relationships between marketing and other functional areas of business. ? consider the various areas of decision-making within marketing and the tools and methods used by marketing managers in making decisions. ? learn key marketing principles, terminology, and concepts. ? appreciate how the marketing aspect is important in their personal and professional development.

- **Principles of Accounting**
  The aim of the subject is to help students understand the essence of accounting; to learn the basic concepts and principles of accounting. In this regard, the subject aims to provide students with knowledge and understanding of financial statements, their items, basic rules to record accounting data, generally accepted accounting principles, etc.

- **Business Law**
  Students should acquire knowledge and skills to: • Understand and interpret the fundamental concepts of business Law, including contracts and legal relationships between commercial entities; • Apply knowledge of civil law and law of legal persons in the commercial context; • Analyze and assess legal relationships and obligations in commercial activities and everyday business; • Solve specific legal problems related to commercial activity and the rule of law in this field.

- **Financial Accounting**
  The objective of this course is to provide knowledge and skills regarding the process of recording, summarizing, and reporting business transactions of commercial companies, in accordance with the Law on Accounting in the Republic of North Macedonia and the International Accounting Standards (IAS). Special emphasis is placed on the preparation and interpretation of financial statements, including: the Balance Sheet and the Income Statement, the Tax Balance – Corporate Income Tax and General Revenue Tax, as well as other reports in compliance with the Law on Accounting in the Republic of North Macedonia.

- **Macroeconomics**
  Students will gain knowledge of: - macroeconomic concepts and categories, which are a precondition for the functioning of a national economy that is part of a wider global economic system; - the importance of key macroeconomic indicators such as: gross national product, national income, economic growth, economic cycle, investment and public consumption, inflation, unemployment, money and banks, budget, balance of payments, etc .; - basic instruments of macroeconomic analysis (aggregate supply and demand) and macroeconomic policies (monetary and fiscal policy), etc .; - the efficient functioning of a national economy, comparing it with modern market economies, noting in that direction changes, similarities and opportunities for the future development of the respective economy; - Knowledge in the field of macroeconomics, which will enable easier access to other advanced macroeconomic courses.

- **Statistics for Business**
  Aims of the course: • Understand and apply statistical methods to analyze economic indicators, energy consumption, and environmental parameters. • Use statistics for forecasting and decision-making in various sectors. • Master the use of statistical software such as SPSS, R, Python, and Excel. Learning outcomes: • Students will be able to analyze economic indicators (GDP, unemployment, inflation) and interpret data related to energy and the environment. • Students will apply statistical methods to forecast energy consumption and environmental impact. • Students will produce structured reports and interpretations based on statistical data.

- **Organizational Behavior**
  The aim of this course is to provide students with fundamental knowledge of organizational behavior, focusing on how individuals and groups behave within organizations. The course examines key concepts such as motivation, leadership, communication, group dynamics, and organizational culture, enabling students to understand and analyze behavior in organizational settings. Learning outcomes: • explain the fundamental concepts and theories of organizational behavior • analyze individual behavior in organizations, including personality, perception, and motivation • understand group dynamics and teamwork in organizational settings • evaluate leadership styles and

their impact on organizational performance • analyze communication processes within organizations • understand the influence of organizational culture and organizational structure on employee behavior • apply organizational behavior concepts to real organizational situations

- **International Business**
  The course aims to provide students with a solid understanding of the global business environment and the complex forces that drive globalization, including technological change, trade liberalization, and evolving consumer preferences. A central focus is placed on exploring the various strategies that firms employ when entering international markets, such as exporting, joint ventures, franchising, and foreign direct investment, while highlighting the advantages and limitations of each approach. In addition, students will critically analyze the political, economic, and cultural risks and opportunities that shape international business activities, enabling them to recognize both the challenges and benefits of cross-border operations. The course further seeks to equip students with the essential skills needed to make informed decisions related to international trade, investment, and finance, by integrating theoretical knowledge with practical case studies. Finally, special emphasis is given to understanding the broader impact of international business on local economies and cultures, encouraging students to evaluate how global business practices influence development, employment, sustainability, and cultural exchange in different regions of the world.

- **Business Information Systems**
  Aims: • Understand core concepts of business information systems. • Explain the role of IS in strategy, management, and decision-making. • Analyze issues of ethics, privacy, and information security. • Develop practical skills in using digital systems for business. Learning Outcomes: Students will be able to: • Define IS and explain their key functions. • Identify opportunities for competitive advantage through IS. • Apply knowledge of databases, networks, and business applications. Evaluate the impact of IS on society, organizations, and individuals.

- **Operations Management**
  Students get acquainted with the complex issues of production management understood as a process of planning and organization of production, but also as control of the functioning of production as a system, to achieve production goals in the most effective and efficient ways. Within this framework, special attention is paid to the following aspects of production management: production as a system, production system planning, product-product design, product-product quality, product production program, production location, capacity of production, production equipment, factory buildings, factory space planning, production processes, timely production planning and monitoring, inventory control, internal storage and transport system, equipment and building maintenance and production assurance energy, cost control and organizational structure of production.

- **Corporate Finance**
  The objectives of this course are to equip students with advanced knowledge and to broaden their existing competencies toward understanding contemporary theoretical and practical aspects of financial management and corporate finance. Special emphasis is placed on analyzing the condition and performance of businesses/corporations through financial statements and other relevant sources, as well as on the application of modern techniques of investment decision-making.

- **Introduction to Artificial Intelligence**
  The aim of this course is to introduce the fundamental concepts and methods of artificial intelligence, including intelligent agents, knowledge representation, search techniques, logical and probabilistic reasoning, and basic machine learning approaches. The course provides an overview of how artificial intelligence systems support problem solving and decision-making in modern digital and business environments. After completing this course, students will be able to: 1. Explain the fundamental concepts and terminology of artificial intelligence. 2. Describe the role of intelligent agents, knowledge representation, and search algorithms in AI systems. 3. Understand basic methods of logical and probabilistic reasoning used in artificial intelligence. 4. Identify key approaches to machine learning and neural networks. 5. Recognize the applications of artificial intelligence in modern digital and business environments. 6. Analyze the potential benefits and limitations of AI technologies.

- **Programming in Python**
  The aim of the course is to introduce students to the fundamentals of programming using the Python programming language. The course develops basic programming skills including data types, control structures, algorithm design, functions, and object-oriented programming. Students will learn how to use Python to solve practical problems and perform basic data analysis tasks relevant to business analytics and artificial intelligence applications. After completing the course, students will be able to: • Understand the basic principles of programming and algorithmic

thinking. • Write Python programs using variables, control structures, functions, and modules. • Apply object-oriented programming concepts in Python. • Use Python libraries for basic data manipulation and analysis. • Develop simple applications and scripts for solving business and analytical problems. Prepare datasets and perform preliminary data analysis for further analytics and AI courses.

- **AI Regulation, Governance and Ethics**
  Course aims: • Introduce students to the regulatory, governance, and ethical dimensions of artificial intelligence in modern organizations and society. • Provide knowledge about international and regional regulatory frameworks governing artificial intelligence technologies. • Develop understanding of responsible AI principles including fairness, transparency, accountability, and privacy. • Analyze ethical challenges related to algorithmic decision-making, data governance, and automated systems. • Equip students with analytical tools to evaluate the societal and business implications of AI adoption. • Encourage critical thinking regarding responsible innovation and sustainable digital transformation. After completing the course, students will be able to: • Define and explain key concepts related to artificial intelligence governance and regulation. • Identify the main ethical challenges related to the deployment of AI systems in business and society. • Analyze international regulatory frameworks including the European Union AI Act and global governance initiatives. • Evaluate risks related to algorithmic bias, discrimination, transparency, and accountability. • Apply principles of responsible AI in business decision-making and organizational governance. • Assess ethical implications of AI applications in finance, marketing, public administration, and digital platforms. • Develop policy or governance recommendations for responsible AI adoption in organizations. • Work collaboratively to analyze case studies related to AI ethics and regulation.

- **Supply Chain Management**
  Aims: Understand fundamental concepts of supply chain management. Develop skills for planning, organizing, and managing logistics processes. Enable students to use strategies and tools for optimizing supply and distribution. Learning Outcomes: Explain concepts and models of supply chain management. Analyze the role of logistics in organizational performance. Apply methods for managing resources, inventories, and transportation. Propose strategies to improve supply chain efficiency.

- **Strategy and Organization**
  The aim of this course is to provide students with knowledge of the concepts and processes of strategic management and organizational design. The course focuses on analyzing the internal and external environments of organizations, formulating and implementing competitive strategies, and understanding the role of organizational structure in strategy implementation. Learning outcomes: • understand key concepts of strategic management • analyze the internal and external environment of organizations • identify and evaluate competitive strategies • understand the relationship between strategy and organizational structure • develop analytical skills for strategic decision-making

- **Databases**
  This course covers an introduction to database design and use of databases, with a short introduction to the internals of relational database management systems. It includes extensive coverage of the relational model, relational algebra, and SQL. The course also features database design and relational design principles based on dependencies and normal forms. A student who successfully will complete this course will be able to use the models and concepts of designing databases. He / She will be able to use database, to design a simple and specific database based on the relational database model, to use MS SQL Server database management system (DBMS), SQL language and implementation of queries. After completing this course, students will be able to: 1. Explain the fundamental concepts of database management systems. 2. Understand the relational data model and principles of database design. 3. Design conceptual database models using E-R diagrams. 4. Apply normalization techniques in database design. 5. Use SQL to create, manipulate, and query databases. 6. Implement and manage simple relational databases in DBMS environments.

- **Data Mining**
  The aim of this course is to introduce the fundamental concepts and techniques of data mining and knowledge discovery from large datasets. Students will learn methods for data preprocessing, data warehousing, classification, prediction, clustering, association rule mining, and data visualization. The course also focuses on building and evaluating analytical models and interpreting results. In the practical part of the course, students implement data mining algorithms and models using Python and modern data analysis tools. After completing this course, students will be able to: 1. Understand the process of knowledge discovery in databases (KDD). 2. Apply data preprocessing and transformation techniques. 3. Use classification, prediction, and clustering methods. 4. Apply algorithms for association rule mining. 5. Build and evaluate analytical models using modern data analysis tools. 6. Interpret and visualize data mining results.

- **Machine Learning**
  The aim of this course is to introduce the fundamental concepts, techniques, and algorithms of machine learning. Students will learn how machines can learn patterns from data and use these patterns to make predictions and decisions. The course covers supervised and unsupervised learning methods, model evaluation, and practical implementation of machine learning algorithms. Students will apply machine learning techniques to real-world problems using modern data analysis tools. After completing this course students will be able to: 1. Understand the fundamental concepts of machine learning. 2. Distinguish between supervised and unsupervised learning methods. 3. Implement basic machine learning algorithms. 4. Build and evaluate predictive models. 5. Analyze and interpret machine learning results. 6. Apply machine learning techniques to real-world data problems.

- **Data Engineering**
  The aim of this course is to teach the fundamentals of data modelling, cleaning, transformation and storage. As such students will learn various means to model SQL and NoSQL data, organize them in different data stores, design and manage data pipelines. Students will also learn how to use state of the art tools implemented in premise or cloud. After completing this course, students will be able to: 1. Understand the architecture of modern data systems. 2. Design data models using SQL and NoSQL technologies. 3. Implement ETL processes for data integration and transformation. 4. Design and manage data pipelines. 5. Organize and manage data warehouses. 6. Use modern platforms for data processing and management in cloud or on-premise environments.

- **Digital Business**
  Course objectives: - Understanding the basic definition and hierarchy of knowledge for digital business and understanding the processes related to the operation, marketing techniques and technological issues of digital systems; - Analyzing data on user activity in order to make informed decisions regarding marketing and business management in the organization and product / service development; - Application of basic online positioning (SEO) techniques in creating the marketing image of the organization, as well as the product brand (branding); - Recognizing and understanding the importance of the Internet as an environment for creating social and business processes; - Demonstrate the tendency for active use of the Internet in economic and social activities and the creation of your career.

- **Business Analytics and Modeling**
  The subject focuses on the process of transforming data into information for solving business problems in the real world. The subject has a phased approach to knowledge generation: first, descriptive analytics is taught where visual analysis is used to characterize data; second, it teaches recommendatory analytics that focus on optimal strategies that "should" be undertaken in the future; third, predictive analytics is taught that focuses on the use of algorithms for predicting the future based on historical data. Topics include: data exploration, data preparation, nonlinear optimization, etc.

- **Econometrics**
  The aim of the course is to equip students with knowledge and skills to apply statistical and mathematical methods in the analysis of economic data. The course develops competencies in constructing and interpreting econometric models, testing hypotheses, and making forecasts. Learning outcomes: Students will understand the theoretical foundations of econometrics and its connection to economics. They will be able to construct and interpret linear regression models. They will gain practical skills in using statistical software for econometric analysis. They will be capable of applying econometric methods for analysis and decision-making in economics and finance.

- **Intelligent Systems and Agentic AI**
  The aim of this course is to introduce students to the fundamental concepts, architectures, and applications of intelligent systems, with particular emphasis on agent-based artificial intelligence and modern agentic AI systems. The course seeks to develop students' understanding of how intelligent systems perceive environments, process information, make decisions, and act autonomously. Through the study of theoretical models and practical applications, students will gain the ability to analyze and evaluate the use of intelligent systems and autonomous agents in various domains such as business, technology, data analytics, and decision-support systems. After completing this course students will be able to: 1. Explain the fundamental concepts of intelligent systems and agent architectures. 2. Analyze knowledge representation and reasoning mechanisms in intelligent systems. 3. Evaluate the role of machine learning in intelligent systems. 4. Design basic intelligent agents and multi-agent systems. 5. Analyze the concept of agentic AI and the use of large language models in autonomous systems. 6. Evaluate ethical and societal implications of intelligent systems.

- **Cloud Infrastructure and Technologies**
  This course introduces to students the foundational knowledge required for understanding cloud computing from different perspectives, both technological and the bussines one. Students will learn about the various cloud service models (IaaS, PaaS, SaaS), deployment models (Public, Private, Hybrid) and the key components of a cloud infrastructure (VMs, Networking, Storage - File, Block, Object, CDN). The course also cover emergent cloud trends and practices including - Hybrid Multicloud, Microservices, Serverless, DevOps, Cloud Native and so on. Finally some other important topics such as cloud security, monitoring, and different job roles in the cloud industry are explained. After completing this course, students will be able to: 1. Understand the architecture and concepts of cloud computing. 2. Distinguish between cloud service models (IaaS, PaaS, SaaS). 3. Analyze different cloud deployment models (public, private, hybrid). 4. Configure and manage key cloud infrastructure components. 5. Understand modern cloud technologies such as containers, serverless computing, and cloud-native architectures. 6. Evaluate security and management challenges in cloud environments.

- **Capstone Project**
  The Capstone Project in the study program Business Analytics and Artificial Intelligence represents a final project in which the student is expected to demonstrate the knowledge and skills acquired during their studies by addressing a real or simulated problem in the field of business analytics and/or artificial intelligence. The student is required to identify a research or applied topic, clearly define the problem, conduct a relevant literature review, collect and analyze data using statistical and analytical methods as well as artificial intelligence tools (such as Python, SQL, or BI platforms), and interpret the results in a business context. The Capstone Project should demonstrate critical thinking, problem-solving abilities, and data-driven decision-making, and conclude with clear and well-justified recommendations. In addition, the student must adhere to ethical principles in data use and to academic standards of writing and presenting the thesis.

Elective courses

- **English Language 1**
  By the end of each level of this course determined by the placement test taken at enrolment, students are expected to be at different levels as determined by the Common European Framework (CEF) and should be able to understand and use familiar expressions and phrases aimed at the satisfaction of needs of a concrete type; ask and answer questions about personal identification and personal relations; talk and write about their everyday lives, leisure, entertainment, finance, problems; ask and answer questions about university degrees, job skills and situations; invite and respond to invitations read and listen for gist, detail and comprehension; evaluate their own progress; participate in role plays and dialogues on familiar topics and produce a paragraph/ essay on topics related to the course material. By the end of this course students are expected to be at A1 level of the Common European Framework (CEF) and should be able to understand and use familiar expressions and very basic phrases aimed at the satisfaction of needs of a concrete type; ask and answer questions about personal identification and personal relations; students should be able to introduce themselves and others by using pronouns and possessives, use greetings, name things in the classroom, distinguish between singular and plural , recognize and use numbers from 1- 100. Students should be able to describe a typical day, recognize and use simple constructions in order to describe their daily routine; talk and write about their everyday lives, leisuree; ask and answer questions about food and drink. students should be able to give dates, use appropriately the vocabulary related to months in the year, make polite requests, describe places, travel and personal histories; choose a destination and give directions; discuss likes and dislikes.

- **English Language 2**
  By the end of each level of this course determined by the placement test taken at enrolment, students are expected to be at different levels as determined by the Common European Framework (CEF) and should be able to understand and use familiar expressions and phrases aimed at the satisfaction of needs of a concrete type; ask and answer questions about personal identification and personal relations; talk and write about their everyday lives, leisure, entertainment, finance, problems; ask and answer questions about university degrees, job skills and situations; invite and respond to invitations read and listen for gist, detail and comprehension; evaluate their own progress; participate in role plays and dialogues on familiar topics and produce a paragraph/ essay on topics related to the course material. By the end of this course students are expected to be at A1 level of the Common European Framework (CEF) and should be able to understand and use familiar expressions and very basic phrases aimed at the satisfaction of needs of a concrete type; ask and answer questions about personal identification and personal relations; students should be able to introduce themselves and others by using pronouns and possessives, use greetings, name things in the classroom, distinguish between singular and plural , recognize and use numbers from 1- 100. Students should be able to describe a typical day, recognize and use simple constructions in order to

describe their daily routine; talk and write about their everyday lives, leisuree; ask and answer questions about food and drink. students should be able to give dates, use appropriately the vocabulary related to months in the year, make polite requests, describe places, travel and personal histories; choose a destination and give directions; discuss likes and dislikes.

- **English Language 3**
  By the end of each level of this course determined by the placement test taken at enrolment, students are expected to be at different levels as determined by the Common European Framework (CEF) and should be able to understand and use familiar expressions and phrases aimed at the satisfaction of needs of a concrete type; ask and answer questions about personal identification and personal relations; talk and write about their everyday lives, leisure, entertainment, finance, problems; ask and answer questions about different phenomena including crime and natural disasters, invite and respond to invitations read and listen for gist, detail and comprehension; evaluate their own progress; participate in role plays and dialogues on familiar topics and produce a paragraph/ essay on topics related to the course material.By the end of this course students are expected to be at B1 level of the Common European Framework (CEF) . They should be able to ask and answer questions about university degrees, job skills and situations; invite and respond to invitations. Students should be able to ask about or describe family relationships and marital status and they should be able to recognize and use appropriately vocabulary related to degrees and university education, art, travelling and sport.

- **English Language 4**
  By the end of each level of this course determined by the placement test taken at enrolment, students are expected to be at different levels as determined by the Common European Framework (CEF) and should be able to understand and use familiar expressions and phrases aimed at the satisfaction of needs of a concrete type; ask and answer questions about personal identification and personal relations; talk and write about their everyday lives, leisure, entertainment, environment finance, problems; ask and answer questions about university degrees, job skills and situations.They should be able to evaluate their own progress; participate in role plays and dialogues on familiar topics and produce a paragraph/ essay on topics related to the course material. By the end of this course students are expected to be at B2 level of the Common European Framework (CEF); They are expected to be independent users of English language and to implement some of the following language functions: give advice; ask and answer questions about university degrees, job skills and situations; invite and respond to invitations, read and listen for gist, detail and comprehension.

- **English Language 5**
  Academic English is a one semester course which aims to enable the students with skills which can facilitate their language learning and their study progress in an academic teaching and learning environment. The course should enable them to use those skills in both foreign language classroom as well as academic progress in content areas. The course incorporates language skills, study skills and generally applicable skills (listening, delivering oral presentations, constructing arguments) in specific assignments. Therefore, upon successful completion of the course, the students' proficiency level should be at C1 according to Common European Framework. As a result, the students should be able to deliver successfully oral presentation, participate in an online debate/ discussion forum stating their opinion and arguments and give feedback to others in a constructive manner. In addition, the students should be able to listen and read for gist and detail and write an argumentative paragraph and essay stating their opinion. They should and write a problem solution paragraph and essay.They should be able to present visual information in a form of Power Point poster presentations. The students should be able to identify main ideas and supporting evidence in a text and to analyse and identify topic sentences in a paragraph. They should be able to identify a purpose of a text, patterns of organization in a text and apply them in their own writing.

- **Business English 1**
  Students will be introduced to the language elements that are needed to understand and process the principles and concepts used in communication in a business/commercial environment. Upon successful completion of this course, students will improve their communication and public speaking skills, will be able to use arguments to support attitudes, but also respect the opinions of others, such as and will improve their business communication skills along with future job search skills.

- **Business English 2**
  Students will be introduced to the language elements needed to understand and refine the principles and concepts used in communication in a business /commercial environment. Upon successful completion of this course, students will improve their communication and public speaking skills, will be able to use arguments to support attitudes, but also respect the opinions of others, as well as improve their business communication skills along with future job search skills.

- **Albanian Language for Beginners 1**
  Albanian Language subject for beginners 1 and 2 is prepared with the purpose to enable the students, who do not have basic knowledge of the Albanian language, to get to know the characteristics of this language, to gain knowledge of the linguistic structure of the Albanian language, and to extend and apply their knowledge in everyday situations. Correspondingly, they will gain knowledge of the structure of the Albanian language; They will also acquire a modest set of various lexical and grammatical categories which will enable them cary out simple conversations.

- **Albanian Language for Beginners 2**
  Albanian Language course for beginners 1, 2 is prepared with the purpose to enable the students, who do not have basic knowledge of the Albanian language, to get to know the characteristics of this language, to gain knowledge of the linguistic structure of the Albanian language, and to extend and apply their knowledge in everyday situations. Correspondingly, they will gain knowledge of the structure of the Albanian language; they will also acquire a modest set of various lexical and grammatical categories which will enable them carry out simple conversations.

- **Macedonian Language for Beginners 1**
  The programme Macedonian Language for beginners 1: reading, writing, listening and speaking. Through special exercises and lectures introduction to basic communication in Macedonian language is provided, i.e. introducing, greeting, presentation, enriching vocabulary and write and understand short texts. When we created this program we took into the consideration that students can apply the acquired knowledge further. The material is processed under the principle of combined lectures and exercises, and continuous tasks through which students are actively involved during class and participate with their questions and suggestions.

- **Macedonian Language for Beginners 2**
  The programme Macedonian Language for beginners includes: reading, writing, listening and speaking activities. In this course the following issues are covered: daily routines, planning activities for the next period, description of persons, places and objects. When we created this program we took into the consideration that students can apply the acquired knowledge further.

- **Macedonian Language Intermediate Level 1**
  The curriculum for Macedonian Language intermediate level 1 includes: reading, writing, listening and speaking through which the students: will enrich the vocabulary through appropriate texts for daily activities (in a bank, in a library, in a ministry, etc.) and will improve the skills for professional writing and speaking that are necessary for clear and effective communication in their further professional career. A special, continuous emphasis on the overall activity is placed on the linguistic elements, that is, on the spelling and grammar of the Macedonian standard language. Experts as one of the key elements for good written expression state the correct use of language.

- **Macedonian Language Intermediate Level 2**
  The curriculum for Macedonian Language intermediate level 2 includes: reading, writing, listening and speaking. Special emphasis is placed on the development of students' communication skills, or the use of language in daily activities and professional context, enriching the vocabulary and acquiring knowledge about the structure and types of professional texts. Different communication styles will be covered, with the goal being for students to establish good communication with the audience through their texts and to attract and retain their attention.

- **Macedonian Language for Professional Purposes 1**
  Upon completion of the course Macedonian for Professional Purposes 1, students are expected to broaden and strengthen their abilities for more advanced written and oral expression in Macedonian in the context of the different professional settings. Students are expected to be able to read, write and comprehend various professional texts in Macedonian. They are also expected to acquire knowledge and skills about the general terminology from the field of law, business and economy, administration, computer sciences, language and communication and to be able to use that terminology in the framework of their future professions. Besides accomplishing these professional aims, students are expected to become more autonomous language learners and be able to think critically about different topics in a multilingual and multicultural environment.

- **Macedonian Language for Professional Purposes 2**
  Upon completion of the course, Macedonian for professional purposes 2, students are expected to reconfirm and expand further their abilities for advanced written and oral expression in Macedonian, in the context of their future professions. They should be able to read, write and comprehend different kinds of professional texts in Macedonian, to analyse and discuss those texts, as well as to create their own documents, including professional biography in Macedonian (CV). They should also expand the knowledge of specific terminology from the field of law, business and

economy, administration, computer sciences, language and communication and be able to use that terminology in simulation of authentic situations from the professional environment, in debates and exchange of opinion regarding different aspects of these professions.

- **Digital Competencies**
  The aim of this course is to develop students' digital competencies in line with modern digital skills frameworks. The course equips students with knowledge and practical skills for the effective, critical, and safe use of digital technologies in academic and professional contexts. After completing the course students will be able to: • Understand the core concepts of digital competencies. • Use digital tools for information search, communication, and collaboration. • Manage and organize digital information and data. • Create digital content using different software tools. • Apply safe and ethical practices in digital environments. • Use digital technologies for problem solving and lifelong learning.

- **Digital Media Design**
  The aim of this course is to introduce the fundamental concepts and principles of digital media design while developing students' creative and technical skills for creating and managing digital content. After completing the course students will be able to: • Understand the basic principles of digital design and visual communication. • Analyze design elements such as color, typography, and composition. • Use digital tools and software to create multimedia content. • Develop creative projects in digital media design. • Apply usability and aesthetic principles in digital design. • Present and evaluate digital media design projects.

- **Introduction to Cybersecurity**
  The aim of this course is to introduce the fundamental concepts of cybersecurity and to develop students' awareness of threats and risks in digital environments. After completing the course students will be able to: • Explain the basic concepts of cybersecurity and its importance. • Identify common cyber threats and attacks. • Understand fundamental principles of protecting information systems and networks. • Analyze security risks and data protection practices. • Apply safe practices when using digital technologies. • Understand ethical and legal aspects of cybersecurity.

- **Artificial Intelligence: Tools and Applications**
  The aim of this course is to introduce the basic concepts of artificial intelligence and the practical use of AI tools for creating digital content and improving productivity in academic and professional contexts. After completing the course students will be able to: • Understand the basic concepts of artificial intelligence and generative AI. • Use AI tools for generating text, images, and presentations. • Apply AI tools to organize and analyze information. • Evaluate the benefits and limitations of AI technologies. • Apply ethical and responsible practices when using AI. • Develop practical projects using artificial intelligence applications.

- **Spreadsheet Modeling**
  The aim of this course is to introduce the concepts and techniques of data modeling and analysis using spreadsheet software such as Microsoft Excel and other similar tools. The course aims to develop students' practical skills in organizing, processing, analyzing, and visualizing data efficiently. After completing the course students will be able to: • Understand the structure and functionality of spreadsheet software. • Organize and manage data within spreadsheets. • Use formulas and functions for calculations and data analysis. • Apply data analysis techniques to solve practical problems. • Create charts and visualizations for interpreting and presenting data. • Develop simple analytical models using spreadsheet tools.

- **Public Leadership and Organizational Development**
  This course aims to provide students with an understanding of how leaders and managers develop and implement the mission and vision of organizations within the public sector. It explores how essential organizational values for long-term success are developed and applied through appropriate practices, activities, and professional behaviors. The course also focuses on the role of leaders in ensuring the development and implementation of effective management systems, as well as how organizations achieve their mission and vision through clear strategies based on stakeholders' perspectives and supported by relevant policies, plans, objectives, and processes.

- **Ethics in Public Institutions**
  The primary objective of this course is to provide students with a theoretical and practical framework for understanding moral dilemmas in the public sector. It aims to cultivate ethical reasoning skills, promote integrity in

administrative decision-making, and prepare future public servants to uphold the principles of transparency and public trust. This course examines the moral foundations of public service and the systemic challenges to ethical governance. Students will explore the tension between political loyalty (clientelism) and professional duty (meritocracy). Special focus is placed on the North Macedonian context, analyzing why high-profile corruption persists and how a "culture of impunity" undermines the rule of law. By the end of this course, students will be able to: • Evaluate public policies using core ethical theories (Utilitarianism, Deontology, and Virtue Ethics). • Identify and manage potential conflicts of interest and corruption risks within an organization. • Apply legal and ethical standards to administrative discretion and decision-making. • Develop organizational strategies to promote transparency and protect whistleblowers. • Analyze the ethical implications of emerging technologies (AI and Big Data) in governance.

- **IT Professional Ethics**
  The subject provides a comprehensive approach to current ethical issues in the use of information technology (IT). It evaluates a range of issues raised in the past and present years faced by IT users, ranging from freedom of expression, privacy, intellectual property, hacking, and continuing with the new era, the ethical use of social networks and online communities. Ethical dilemmas and ethical responsibilities of IT professionals are addressed, and critical appraisal and responsible use of IT is promoted.

- **Internet Technologies**
  The purpose of this course is to provide you with a comprehensive understanding of the tools and problem-solving methodologies related to client side internet programming. Our primary focus will be on the tools and skills used by web developers in today's industry. The lecture will discuss general concepts and syntax, whereas the lab will focus upon implementation and practice. The main focus will be around client side technologies such as: Basic Concepts of the origin of the Internet and Networking, web markup languages like HTML5, create web page styles with Cascading Style Sheets (CSS), Utilize JavaScript to create interactive web pages together with proprietary libraries (JQuery, JQuery Mobile, AppML, AngularJS and HTML5 API’s)

- **Control of Nosocomial infections**
  The aim of this course is to provide students with theoretical and practical knowledge regarding the control and prevention of hospital-acquired infections. Students will develop competencies in identifying risk factors, implementing preventive measures, and managing infectious situations in healthcare settings. After completing the course, students will be able to: • Understand the basic concepts of hospital-acquired infections and their transmission • Apply standards and protocols for infection control • Identify and assess risks in hospital environments • Use appropriate hygiene and disinfection techniques • Work effectively in teams to manage infection-related situations

- **Basics of Design Studio**
  The aim of the course Basics of Design Studio is to develop students’ fundamental conceptual and practical abilities in shaping architectural space. Through individual and group work, students acquire competencies in analysis, visual communication, and critical thinking within the process of architectural design and project development. Upon completion of the course, students are expected to be able to: ● understand and apply the basic principles of architectural project design; ● translate programmatic requirements into functional spatial solutions; ● produce accurate drawings and physical models; ● use both analog and digital methods to represent ideas; ● justify design decisions through visual and oral presentation.

- **International law on human rights**
  Qëllimi i lëndës Bazat e Dizajn Studios është zhvillimi i aftësive themelore konceptuale dhe praktike në formësimin e hapësirës arkitektonike. Përmes punës individuale dhe në grup, studentët fitojnë kompetenca në analizë, komunikim vizual dhe mendim kritik në kuadër të procesit të projektimit arkitektonik. Pas përfundimit të lëndës, studentët pritet të jenë në gjendje: ● të kuptojnë dhe zbatojnë parimet bazë të projektimit arkitektonik; ● të përkthejnë kërkesat programuese në zgjidhje funksionale hapësinore; ● të realizojnë vizatime dhe modele fizike korrekte; ● të përdorin metoda analoge dhe digjitale për përfaqësimin e ideve; ● të argumentojnë zgjedhjet projektuese përmes prezantimit vizual dhe verbal.

- **New Reproductive Technologies and Law**
  The aim of the course is to enable students to acquire advanced knowledge and competencies regarding the legal, bioethical, medical, and social aspects of contemporary reproductive technologies, as well as their impact on the concepts of family, parenthood, and human rights. The specific objectives of the course are: to provide knowledge on the emergence, development, and application of new reproductive technologies and their impact on modern society; to ensure understanding of the fundamental legal concepts related to reproduction, parenthood, and family relationships; to analyze the national and international legal framework governing medically assisted reproduction; to

develop the ability to identify and address complex legal issues related to: (the legal status of children born through these technologies, the rights and obligations of parents and donors, the conflict between the child's right to know their origin and the donor's right to anonymity); to enhance understanding of bioethical dilemmas related to the creation of life, scientific research, and the limits of medical intervention;to foster critical thinking regarding the balance between reproductive autonomy and the protection of the public interest and the best interests of the child; to promote an interdisciplinary approach in the analysis of legal issues related to biotechnology and reproductive medicine; to develop the capacity for critical evaluation of legislation and judicial practice.

- **Public Relations and New Media**
  Course objectives: ? To understand the basic concepts of public relations (PR) and their role in organizational communication. ? To know the characteristics and functioning of new media and digital platforms in the field of PR. ? To develop practical skills in the use of digital tools for effective communication with the public. ? To analyze and evaluate communication strategies in real contexts. ? To integrate theoretical knowledge with professional practice in planning PR campaigns. After completing the course, students will be able to: ? Describe and explain the role of PR and the impact of new media in modern communication. ? Analyze case studies and identify effective communication strategies. ? Develop simple communication plans using digital tools and social media. ? Evaluate the effectiveness of PR campaigns and their impact on the public. ? Apply ethical and professional principles in communicating with the public and the media.

- **Albanian Language and Writing Culture**
  The course aim is to develop students' linguistic and communicative competencies, including the correct use of the standard language, mastery of orthographic and grammatical rules, as well as the ability to analyze and interpret different types of texts. Students will also learn the principles and techniques of academic writing, including the structure of scientific papers, citation practices, and the use of academic sources. Upon completion of the course, students are expected to be able to produce clear, well-structured, and coherent texts, apply language norms accurately, and demonstrate critical reading and writing skills.

- **Personal Finances**
  The aim of the course is to provide students with knowledge and practical skills for effective personal financial management throughout life. The course focuses on developing competencies related to personal financial planning, managing income and expenses, understanding financial products and services, and making informed decisions regarding saving, investing, and debt management. Through the analysis of real-life financial situations and practical financial tools, students will develop the ability to manage financial resources responsibly and sustainably. After completing the course students will be able to: • understand the fundamental concepts and principles of personal financial management; • prepare personal budgets and short-term and long-term financial plans; • analyze different saving and investment options to achieve financial goals; • manage credit, debt, and the use of banking and financial products; • evaluate financial risks and understand the role of insurance in risk management; • plan long-term financial goals such as investment and retirement planning; • make informed and responsible financial decisions in personal and professional contexts.

- **Project Management**
  This course aims to introduce students to the world of modern projects and prepare them to face the opportunities and real-life economic challenges involved in designing and implementing projects that meet actual needs. It focuses on understanding the phases of project development, as well as the essential role of the project manager in defining needs, scope, implementation activities, and the complexity of modern project design. In addition, the course aims to equip students with the skills to use contemporary project management tools and techniques, transforming an idea or need into a real, structured, and documented project. In this way, students develop creativity, innovation, and greater competitiveness in the labour market

- **Business Plan**
  This course aims to provide students with theoretical and practical knowledge on developing and preparing a business plan. It focuses on analyzing business ideas, market evaluation, financial and operational planning, as well as strategies for implementing and developing a sustainable business.

- **Common Sense Economics**
  This course aims to provide students with a practical understanding of fundamental economic principles, helping them apply economic reasoning in everyday decision-making at both personal and professional levels. The course emphasizes the importance of individual responsibility, market processes, sound economic policies, and the role of institutions in improving economic well-being.

- **Digital and Online Literacy**
  The Digital and Online Literacy subject is a one-semester course with 3 hours per week, which is offered in undergraduate studies. The course is tailored to the needs of students and incorporates various 21st century skills, which are related to the effective use of technology. The course contains three categories of 21st century skills. Upon completion of the subject, students will be able to search for and access online information, using a variety of digital tools, critically evaluate the authenticity of online materials and make distinguish between true and false sources, show understanding of ethical issues in the academic context, understand how quotes are used fairly, learn how to communicate professionally efficiently, understand the basics of cybersecurity, as well as the positive and negative aspects of creating an online identity, investigate cyberbullying and identify possible choices to reduce online concerns.

- **English Literature and Film**
  This subject is dedicated to English language students as well as students who want to read, enjoy watching movies and analyzing them. The aims of the course are as follows: - To help students develop critical thinking skills through film analysis - To discuss, evaluate and compile critical comments - critical analysis of literary and informative texts - discussion and analysis of student work and evaluation by colleagues / peers - To present different perspectives, supporting claims, use of sensory language.

- **Business Ethics and Corporate Responsibility**
  Aims: 1. Introduce core ethical theories and frameworks relevant to business decisions. 2. Explain the historical evolution and contemporary scope of corporate social responsibility (CSR). 3. Develop skills for identifying ethical issues in diverse business contexts. 4. Analyze stakeholder interests and the ethical implications of managerial choices. 5. Evaluate corporate governance structures and their role in ethical oversight. 6. Examine legal, regulatory, and voluntary mechanisms that shape responsible business conduct. 7. Explore sustainability, environmental ethics, and the business responses to climate change. 8. Foster effective ethical reasoning, argumentation, and decision-making skills. 9. Encourage awareness of cross-cultural and global dimensions of business ethics. 10. Prepare students to design and assess CSR strategies and ethical policies for organizations.

- **Business Consulting and Problem Solving**
  Aims: • Understand the role and process of business consulting. • Develop skills for identifying and analyzing organizational problems. • Apply structured methods and tools for problem solving. • Improve teamwork and professional presentation skills. After completing the course, students will be able to: • Analyze complex organizational problems. • Apply structured problem-solving methods. • Develop strategic recommendations for businesses. • Present and justify professional solutions.

- **Labor Market**
  The main purpose of the subject is to provide students with basic knowledge and in-depth knowledge in the field of labor market theory, then with the mechanism of its functioning in the market economy. The purpose of the Labor Market is to offer and teach students the categories, laws and main principles by which the labor market operates. The subject provides a detailed analysis of the behavior and role played by key labor market agents: individuals, firms and government. The analysis is based on two basic categories: job demand and job supply, which find application in almost all topics covered in this course. The knowledge gained by students in this subject serves as a basic theoretical basis necessary to understand and master the various theories and policies applied in the labor market. The course aims for students to understand how labor markets efficiently distribute and use the rare factor of production, labor. Lectures include knowledge of job demand and job supply concepts and their practical application; bringing individuals into the labor market to maximize their usefulness; bringing firms to the labor market that aim to maximize profit; the role of government in the labor market, different structures of labor markets: labor market in full competition, monopoly in the labor market, monopsony in the labor market, the role of trade unions in the labor market, bilateral monopoly in the labor market. Lectures and discussions in the classroom cover materials that may not be in the book and some aspects of the materials included in the basic textbook will not be discussed in class, but are left to the student's active study. Therefore, in order to guarantee success in the best possible acquisition of the subject, the student must be present in lectures and seminars, and to actively participate in the discussion of various problems related to the labor market.

- **Environmental Economics**
  Environmental economics aims for students to gain knowledge about: - main sources and types of environmental agents; - steps in the regulatory process towards risk assessment and risk management, as well as knowledge to identify current legislation and regulations related to environmental issues; - filling in the gaps related to the health effects of environmental agents and identifying areas of uncertainty in the risk assessment process, and - identifying and defining steps in the risk assessment and management process.

- **Local Economic Development**
  Through the subject it is intended that students achieve: - comprehensively understand the complexity of local economic development, as well as the aspects that constitute the local economic development portfolio; - to critically evaluate the advantages and disadvantages arising from alternative ways of achieving local economic development; - assess the importance of networks established between stakeholders in the public sector, business sector and local government, respectively municipalities; - to choose scientific instruments for the evaluation of acceptable strategies for local economic development, etc.

- **E-Commerce**
  Course Objectives: To introduce students to the fundamentals of e-commerce as an intersection of business, technology, and society. To provide knowledge of digital business models, e-commerce infrastructure, and online platforms. To analyze the economic, social, and regulatory implications of e-commerce. To develop skills for evaluating e-commerce market strategies, technologies, and trends. To encourage critical thinking about issues of trust, security, privacy, and ethics in the digital economy. To provide students with practical tools for designing and implementing e-commerce solutions. Upon completion of the course, students will be able to: Define and explain key concepts and theories of e-commerce. ? Identify and evaluate different e-commerce business models and revenue generation strategies. ? Analyze the role of internet, web, and mobile infrastructure in enabling e-commerce. ? Assess marketing strategies, advertising, and consumer behavior in e-commerce. ? Apply knowledge of payment systems, security, and regulatory frameworks in practice. ? Conduct case study analyses of real-world e-commerce companies. ? Design and present an e-commerce project or business plan. ? Work collaboratively to propose solutions to digital transformation challenges.

- **Data Analysis with Python/R**
  Aims of the course program: • To understand the fundamental methodologies of data analysis. • To use tools and libraries for data analysis in Python/R. • To practically apply knowledge from statistics and data analysis. • To interpret and present analytical results through reporting and data analysis techniques. After completing this course, students will be able to: 1. Use Python/R for data preparation and analysis. 2. Apply basic statistical and analytical techniques to real datasets. 3. Clean, transform, and organize data for further analysis. 4. Interpret data analysis results in a business context. 5. Prepare analytical reports using appropriate tools. 6. Apply data analysis methods as a foundation for more advanced courses in the program.

- **Financial Modeling**
  The aim of the course is to equip students with practical skills to build and analyze financial models for economic decision-making. Upon completion of the course, students will be able to construct simple and complex financial models, analyze financial data, forecast financial performance, and provide recommendations based on quantitative analysis.

- **Entrepreneurial Finance**
  The aim of this course is to focus on the financial challenges faced by startups and high-growth ventures. It examines sources of entrepreneurial financing, including venture capital, angel investment, crowdfunding, and private equity. Upon successful completion of this course students will be able to: - Understand the financial lifecycle of entrepreneurial ventures. - Analyze startup financial statements and funding requirements. - Apply data analytics tools to evaluate startup performance and risk. - Build financial projections and valuation models for startups. - Understand venture capital structures and investment decisions. - Use AI and predictive analytics to assess startup growth potential. - Design funding strategies for innovative businesses.

- **Negotiation and Conflict Management**
  The aim of this course is to provide students with theoretical and practical knowledge about negotiation processes and conflict management in organizational and business environments. The course focuses on developing analytical and practical skills for planning and conducting effective negotiations and managing conflicts constructively. After completing the course students will be able to: • understand key concepts and processes of negotiations • analyze negotiation situations in business contexts • apply effective negotiation strategies and tactics • identify and manage conflicts in organizations • develop communication and decision-making skills in negotiation situations

- **Sales Management and Customer Relationships**
  The aim of this course: • To understand the role and importance of sales management within the organizational structure of a company. • To analyze sales strategies and market opportunities, taking into account product characteristics and customer needs. • To evaluate sales opportunities in alignment with the strategic goals and objectives of the organization. • To develop professional sales skills and effective practices in managing customer relationships that enhance the long-term value of the customer. • To utilize Customer Relationship Management

(CRM) tools and technologies to improve sales processes, customer communication, and post-sales relationship management.

- **Human Resource Management**
  The aim of this course is to provide students with knowledge of the main concepts and practices of human resource management in organizations. The course focuses on recruitment, selection, motivation, employee development, and performance management, as well as the role of human resources in improving organizational effectiveness. After completing the course students will be able to: • understand key concepts and functions of human resource management • analyze recruitment and employee selection processes • understand the importance of motivation and employee development • analyze performance management systems • develop skills for managing interpersonal relationships in organizations

- **Behavioral Economics**
  The aim of the course is to study the social, cognitive and emotional factors of individual and institutional economic decisions, as well as the consequences of changes in market price, profits and resource allocation. The behavioral model is integrated by economic theory and includes a range of concepts, methods, and research areas.

- **FinTech and Digital Finance**
  The aim of this course is to provide students with theoretical and practical knowledge about the development of financial technologies, the digital transformation of financial services, new payment models, digital banking, digital lending, blockchain, crypto-assets, decentralized finance, and the regulatory, security, and consumer protection challenges of the modern financial ecosystem. Upon successful completion of the course, students will be able to: • explain the fundamental concepts of FinTech and digital finance; • analyze the impact of digital transformation on banks, financial institutions, and financial markets; • distinguish major models of digital payments, digital banking, crowdfunding, peer-to-peer lending, and insurtech; • evaluate the potential and limitations of blockchain, smart contracts, crypto-assets, and DeFi; • identify risks related to cybersecurity, privacy, digital fraud, and data protection; • interpret key regulatory, ethical, and compliance issues in digital finance; • use case studies and practical analysis to assess FinTech solutions in real business and financial contexts.

- **Data Visualization**
  The aim of this course is to equip students with knowledge and practical skills for effective data visualization and interpretation of analytical results. Students will learn principles of visual design, methods for presenting complex datasets, and the use of modern tools for creating charts, dashboards, and interactive visualizations. After completing the course students will be able to: • understand key principles of data visualization • analyze and interpret data using graphical representations • use modern tools for creating data visualizations • design effective visualizations for presenting analytical results • communicate complex information through visual formats

- **Game Theory and Business Strategy**
  This subject focuses on analytical methods derived from game theory, which provides a rigorous analytical framework for structuring competitive situations, identifying alternatives, and choosing between them. The basic approach will be to break down the complexity of the pieces, continue to use the tools provided by game theory to analyze these pieces, and then assemble the pieces into a coherent logical understanding. The goal is to become better strategic decision makers when faced with competitive challenges. The main objectives will be to use the concepts and tools of game theory to identify, diagnose and analyze the competitive challenges faced by companies in the dynamic environment and to apply the concepts and tools of game theory to develop strategies that will give them a competitive advantage.

- **Business Process Management**
  To maximize value creation, organizations must carefully analyze, document, and continuously assess the efficiency and effectiveness of their business processes. With a focus on the fundamentals of business process management, the objective of this subject is to learn how information technology is used to enable and manage business processes. The three main topic areas of the subject are enterprise data exchange, enterprise systems, and process management and analysis.

- **Emerging topics in Business and AI**
  The aim of this course is to introduce students to emerging developments in artificial intelligence and their impact on business. The course explores AI applications in decision-making, marketing, finance, operations, and the digital transformation of organizations Upon successful completion of the course, students will be able to: • explain the

fundamental concepts of artificial intelligence in business; • analyze the impact of AI on business models and organizational strategies; • identify applications of AI in marketing, finance, and operations; • evaluate ethical and regulatory challenges related to the use of AI; • analyze emerging AI technologies and their impact on business and the economy.

- **Financial Data Analysis**
  The aim of this course is to provide students with knowledge and practical skills in analyzing financial data using statistical methods, econometric models, and modern data analytics techniques. The course focuses on applying programming tools and analytical techniques to analyze financial markets, model financial risk, and support financial decision-making. After completing the course students will be able to: • understand key concepts of financial data analytics • apply statistical and econometric methods to financial data • analyze financial time series and forecast trends • use programming tools for financial data analysis • interpret analytical results for financial decision-making

- **Applied Accounting**
  The aim of this course is to provide students with practical knowledge of accounting applications in organizations using accounting software and standard financial documentation. Students will learn how financial transactions are recorded and how financial reports are prepared. Learning outcomes: After completing the course students will be able to: • understand basic accounting processes in organizations • record financial transactions in accounting systems • use accounting software for financial data processing • prepare basic financial reports • interpret financial information for decision-making

- **International Marketing**
  The course aims to provide students with a comprehensive understanding of marketing in a global context. Upon completion of the course, students will be able to analyze the global marketing environment, including cultural, political, economic, and legal factors that influence international business. They will develop strategies for entering and competing in international markets, apply marketing concepts to global branding, product adaptation, pricing, distribution, and promotion, and evaluate consumer behavior across different countries and cultures. Furthermore, students will learn to use metrics and analytical tools to assess the effectiveness of international marketing strategies and apply theoretical concepts to real-world global marketing challenges through case studies.

- **Real Estate Finance and Investment Analysis**
  The aim of the course is to provide students with knowledge and analytical skills for evaluating real estate as an important asset class. The course focuses on real estate market analysis, property valuation, financing structures, and investment decision-making. After completing the course students will be able to: • analyze real estate markets and investment opportunities • apply valuation techniques to determine property value • evaluate financing and mortgage structures • conduct investment analysis using NPV, IRR, and cash flow models • assess risk and return in real estate investments • make informed investment decisions based on financial analysis

- **Environmental Data Analysis and Carbon Accounting**
  The aim of this course is to provide students with theoretical and practical knowledge on environmental data analysis and the key principles of carbon accounting. The course aims to develop students' abilities to collect, analyze, and interpret environmental data, as well as to assess greenhouse gas emissions at institutional, local, and national levels. Through the application of statistical methods and analytical tools, students will understand the role of data in shaping environmental policies and sustainability strategies. Learning outcomes:

- **Auditing**
  This course aims to provide students with in-depth knowledge of the conceptual, theoretical, and practical aspects of auditing. It builds upon students' prior knowledge in accounting and prepares them to understand the professional role and function of auditing in practice. The main objective of the course is to address key issues faced by the auditing profession at both local and international levels, while analyzing the environment in which it operates. The course focuses on professional standards, ethical principles, and the legal framework governing auditing activities. Students will be guided through a structured approach that follows all stages of the auditing process, from engagement acceptance to the preparation and presentation of the final audit report, developing practical and professional skills for the auditing profession.

- **Logistics and Automation**
  The course aims: - Introduce students to the technical and automation aspects of logistics systems. - Strengthen understanding of how information and automation technologies enhance modern logistics. - Provide practical insight into the role of digitalization and Industry 4.0 in optimizing value chains. - Develop analytical and problem-solving skills in logistics automation.