



Learning outcomes

Learning outcomes especially when we take into account that part of curriculum of the study programs and internships and practical work, is to master some of the possible combinations of the following knowledge and skills:

- Collection, analysis and specification of user requirements in different applicative domains and modeling software that should support these requirements;
- Design, operation and administration of databases;
- Independent and team work in the development, administration and maintenance of information systems;
- The use of modern software environments and tools for the development of modern information systems;
- The protection of data in information systems from unauthorized use and attacks from the network, viruses, etc.;
- Work in multi-disciplinary teams in which the technical support of the engineer for information systems and technology is necessary;
- Mastery of concepts and theoretical principles of computer science, which will allow to work independently, as well as participation in the information and interdisciplinary teams;
- Essential knowledge for the selection, creation, application, integration and administration of information technologies.
- Application of business intelligence tools for supporting the decision making process in business and organizational systems using selected software tools.
- Application of data mining algorithms for supporting the decision making process in business and organizational systems using selected software tools.
- Implementation of machine learning methods for supporting the decision making process in business and organizational systems using popular machine learning program languages.
- Setting essential theoretical and practical foundation in the field of electronic commerce/business management.
- Full-stack web development
- Developing web applications and services on cloud computing infrastructure
- Establishing and ensuring the quality of software (quality assurance); Collection, analysis and specification of user requirements in different applicative domains; Work in multi-disciplinary teams in which the technical support of the engineer for information systems and technology is necessary
- Fundamental knowledge required for the analysis and application of modern information and communication technologies in the field of computer architecture and organization, as well as an understanding of the basic concepts of modern operating systems for their effective use. In addition, students acquire basic practical skills to work under Linux.
- Developing computer networks as well as programming network applications for Internet and local computer networks.
- Utilization of tools and multimedia technologies. Skills with computer tools to work with images, perform audio and video production or to create a website.
- Implementation of advanced distributed systems (such as blockchain, P2P and CDN) and Internet application protocols development.
- Designing and evaluating user interfaces for both desktop systems and mobile platforms.
- To produce multimedia projects with adequate methodological approach.
- Programming applications for mobile devices, native and hybrid applications, Android and iOS platform.
- Knowledge in the field of computer systems security required for security architect, security analyst, security auditor, penetration tester, security engineer, source code auditor, vulnerability assessor, incident responder, cryptographer.

- Knowledge and skills of strategic and operational technology management areas, i.e. forecasting, planning, organising and managing the dynamics of change of technologies, technology systems, processes and operations in practice; to implement the theoretical and practical activities in development of small and medium-sized enterprises; for applying methods and techniques of technology management in decision-making relating to technology transfer, introduction and diffusion of technological innovations.
- Understanding overall concept and significance of organizational systems.
- Comprehension of organizational theory development through history.
- Applying principles and models of business system organization.
- Implementation of productivity, capacity and cost calculations in business system organization.
- Designing modern software solutions in accordance with the legal framework (privacy by design, authentication and authorization, cyber security).
- Conceptual knowledge to understand basic problems of design, implementation, measurement, and improvement of business and work processes, and to apply engineering and management methods and techniques for solving them by using specific design and analysis rules and principles, modeling techniques, and measurement methods in organizational systems.
- Application of current psychological principles while resolving issues concerning psychological aspects of work life.
- Apply and connects sociological knowledge to solve practical problems and make socially responsible business decisions.
- Recognize the social interests and goals of different participants in the work process and uses them to prevent and resolve working conflicts.
- Respecting ethical business principles is based on a professional assessment of the social situation.
- Understanding fundamental human resource management activities, policies and practices in organizations.
- Understanding the possibilities of technology use for learning process implementation.
- Acquiring speaking, writing, listening and reading English and French language skills and competencies related to subject-fields.
- Understanding the process and principles of successful learning as a part of tutoring practice in business or education.
- Development of economic logic and thinking about contemporary economic trends.
- Application of modern and key concepts and tools of financial management and accounting, in organizational and business decisions making.
- Appropriate financial systems modelling and simulation, financial instruments' pricing and building intelligent systems for forecasting and automated trading.
- Independently initiate, plan, execute, monitor, control and close projects, programs and portfolios, through project integration, scope, schedule, cost, quality, resource, communications, risk, procurement and stakeholder management.
- Understanding and application of multiattribute decision-making methods for ranking of alternatives in business and organizational systems using software tools in business and organizational systems.
- Application of system control and computational intelligence techniques for solving practical problems
- The use of specialized software tools for quantitative modeling and system analysis
- Using specific statistical and mathematical modeling software packages in solving various problems, inferencing, and decision making for business and organizational systems..
- Applying quantitative techniques of dynamic programming, project planning, inventory management and queuing theory in managerial decision making.
- Implementing of data envelopment analysis for efficiency evaluation and comparative analysis of decision-making units in the presence of multiple inputs and outputs using modern software packages.
- Identification, modeling, solving and analyzing strategic situations using game theory approach.

- Application of reliability and risk analysis methods to real problems using software packages.

