FULL-TIME STUDIES

SEMESTER 1

History and Culture of Japan, 30 hours of lectures

The goal of the course is to introduce students to the history and culture of Japan, including traditions, customs, norms and ethical standards that have evolved during the process of the civilizational development of society in East Asia. Students will also be introduced to information about Japanese art and technological achievements.

Foundations of Management and Organization 1, 30 hours of lectures, 30 hours of classes

The aim of the course is to familiarize students with basic concepts and issues in the field of management and organization. During the course, students develop the ability to take on various roles in the organization, including leadership skills, and also develop skills in analyzing problems occurring in the organization and developing and implementing their solutions.

Mathematics (1), 15 hours of lectures , 30 hours of classes

The aim of the course is to provide the students with a good understanding of the basic ideas of logic, set theory and mathematical analysis, including functions of one real variable, sequences, limits of a real function, continuity, its derivative and applications (as location of extrema, the L'Hospital's Rule, Taylor Polynomial). Also the connections of mathematical analysis with computer science, optimization and economics are presented.

Computer System Architecture, 30 hours of lectures, 30 hours of classes

The course aims to familiarize students with the basics of computer use on Windows and Linux operating systems. The goal of course is to acquaint students with selected software available for the above mentioned operating systems. The course will also cover installation, configuration and utilization of operating systems.

MS Office Suites, 15 hours of lectures, 30 hours of classes

The aim of this course is to familiarize students with desktop publishing rules, which are used in any form of written communication between people. Students learn how to use these rule in Microsoft Office Package. The specific issues of Word, PowerPoint and Excel are presented.

Foundations of IT and Programming in Management, 30 hours of lectures, 30 hours of classes

The aim of this course is to familiarize students with basic elements of Java language: variables, literals, variables, types, operators, expressions, instructions, iterations, tables, files, text decomposition, methods of sorting and searching. The broader goal of classes is to help students to develop skills of abstract thinking and resolving simple programming problems.

Microeconomics 30 hours of lectures, 30 hours of classes

The didactic goal of the subject is to: familiarize students with the basic concepts of microeconomics used to describe market processes and phenomena; present market behaviors of households and economic aspects of the functioning of enterprises in the economy. Emphasis will be placed on mastering the ability to understand and analyze market mechanisms that determine how consumers, producers and employees make decisions concerning the use of their resources .

SEMESTER 2

Mathematics (2), 15 hours of lectures, 30 hours of classes

The aim of the course is to provide the students with a good understanding of the basic ideas of Calculus, including integrals, visual data presentation, partial derivatives and their applications. Also the student is introduced to Linear Algebra i.e. algebra of matrices,

determinants and solutions of linear systems of equations and the Theory of Graphs. The connections with computer science, optimization and economics are presented.

Object-Oriented Programming, 15 hours of lectures, 30 hours of classes

The aim of this course is to familiarize students with basic elements of object oriented programing (Java): classes, objects, fields, setters-getters, static methods, constructors. The topics include also overloading methods, static attributes, methods with variable number of parameters, interfaces. Classes emphasize the power of object oriented programing while projecting and implementing own classes: inheritance, composition, aggregation and association.

Foundations of Marketing, 15 hours of lectures, 30 hours of classes

The aim of the course is to acquaint students with the basic concepts in the field of marketing. Particular emphasis will be put on the impact of marketing activities on the organization's environment and its relations with stakeholders.

Foundations of Management and Organization, 30 hours of lectures, 30 hours of classes

The aim of the course is to familiarize students with basic concepts and issues in the field of management and organization. During classes, students develop the ability to take on various roles in the organization, including leadership skills, and also develop skills to analyze problems occurring in the organization and develop and implement their solutions.

Multimedia Technologies, 30 hours of lectures, 30 hours of classes

Classes are aimed at acquainting students with the technologies used to create multimedia content and ways of presenting a given topic with their use. Familiarizing students with basic issues of two and three dimensional graphics. Emphasis will be placed on acquiring knowledge of software (PowerPoint, Google Docs, Prezi) used to prepare multimedia presentations and software used to create multimedia content, such as: Adobe Photoshop, Flash, Gimp.

Accounting of Business Entities, 30 hours of lectures, 30 hours of classes

The general objective of the course is to familiarize students with the principles of financial accounting used to reflect the economic phenomena and processes taking place in the business entity and their impact on the company's assets.

Detailed objectives:

Students will:

- acquire basic skills regarding recording of business transactions on company accounting records and the preparation of basic financial statements.
- have knowledge pertaining to the organization of accounting in an enterprise, e.g. accounting policies, data protection, control.
- possess basic skills in the field of budgeting.

Legal Foundations of Business, 15 hours of lectures, 15 hours of classes

The aim of the course is to familiarize students with various forms of running a business, such as: sole proprietorship, joint-stock company, limited partnership and limited liability company. The class will also cover such issues as fair competition, unlawful market practices, competition and consumer protection and legal issues connected with internet and online businesses.

SEMESTER 3

Databases (1) 30 hours of lectures, 30 hours of classes

After completing the course the student should be able to create a user-friendly database application in MS ACCESS that meets the client's expectations, correct from the point of view of the form of normal entities, equipped with technical documentation and instructions for the user.

Physics, 30 hours of lectures, 30 hours of classes

The aim of the course is to familiarize students with the basic concepts of physics of electricity and magnetism including their application in the theory of signals and electrical circuits. As part of the lecture, students learn about processing and transmitting information, methods of analysis of electrical circuits and the principle of operation of selected electronic circuits that facilitate processing of electronic signals.

WWW Pages and Portal Design, 15 hours of lectures, 30 hours of classes

The goal of the course is to familiarize students with the current basic Internet technologies used to describe the content and formatting of HTML and CSS languages, the principles of building websites and the basics of using content management systems.

Statistical Data Analysis, 30 hours of lectures, 30 hours of classes

Understanding the basics of statistical data analysis: graphical and numerical methods of presenting various types and forms of data, description of the dynamics of time series, description and examination of correlation and regression dependencies of features. Learning the basics of statistical inference on the basis of a random sample model used in regression and correlation analysis.

Market Research, 15 hours of lectures, 15 hours of classes

The aim of the course is to provide theoretical and practical knowledge regarding the goals, organization and methodology of market and marketing research. Students will gain knowledge about research methods and techniques adapted to the nature of decision-making problems of enterprises. The class will also cover the latest trends in research – e.g. the use of IT tools and systems, conducting research via the Internet, etc.

Organizational Behaviour, 15 hours of lectures, 15 hours of classes

The aim of the course is to present students with a general overview of organizational behavior and its impact on the functioning of the organization and management. The topics of the classes cover such issues as individual decision making, the basis of group behavior,

working in teams, communication in the organization, leadership and power, interpersonal conflicts, negotiating, organizational change and improvement; stress and change management.

Information Technologies in Management, 15 hours of lectures, 15 hours of classes

The course focuses on modern IT tools used to support management of enterprises. Students will learn about types of IT tools, their possible uses and benefits. The most important topics of the course include: implementing IT systems in an enterprise, CRM Systems; Work Process Management systems; Business Intelligence systems, OLAP systems; document management systems; business e-learning systems.

Information Systems Design, 30 hours of lectures, 30 hours of classes

The aim of the course is to introduce object-orientedness in the context of its use in the analysis and design of systems and presentation of the UML language (an industrial standard used to specify, visualize, construct and document artifacts generated in the software development process). Students will acquire knowledge about the life cycle of IT products, usage methodologies and the implementation and management of IT solutions in the workplace.

SEMESTER 4

Databases (2), 30 hours of lectures, 30 hours of classes

On completion of Databases 2, students should be able to independently design an application in PL / SQL, which will meet the client's expectations through appropriately created procedures and triggers including the use of cursors, exceptions and properly constructed queries.

They should possess well-grounded understanding of the need to construct proper entity diagrams and the skill to define the form of normal relations, as well as the skill to decompose them with the view to optimizing this form.

Digital Systems and Foundations of Electronics, 30 hours of lectures, 30 hours of classes

The aim of the subject is to provide knowledge on the construction and operation of digital systems at various levels of their functioning. The subject begins with an introduction to the basics of electronics, a discussion of passive and active elements used in electronics, methods of measuring electrical quantities and a discussion of the most elementary electronic systems. Logic gates are introduced with a description of their construction and standards. In the next stage, classical methods of analysis and synthesis of combinational systems (Karnaugh maps) and sequential systems such as counters, registers, state machines are presented. Basic processor and controller blocks and the use of controllers in practice will be discussed, including support for various types of inputs and outputs (e.g. ADC, PWM, ports), event handling techniques and communication standards.

Human Resources Management, 15 hours of lectures, 15 hours of classes

The aim of the education is to provide comprehensive knowledge on human resources management in an organization, taking into account both theoretical and practical aspects. Students acquire skills in planning, recruitment, motivation, assessment and development of employees. In addition, the subject aims to raise awareness of the importance of human capital as a key resource of the organization, as well as to develop the ability to analyze and solve problems related to HRM. An important element of the course is also the development of interpersonal skills and ethical aspects of personnel management.

Finance in Enterprises, 15 hours of lectures, 15 hours of classes

The course focuses on familiarizing students with the basic concepts and mechanisms of company finances, methods of financial analysis and managing basic resources of economic entities. Students will acquire the following skills: preparing a basic financial analysis of the company (including recommendations for changes), interpretation of the break-even point and the use of financial, operational and combined leverage.

Computer Networks and Information System Security, 30 hours of lectures, 30 hours of classes

The main goal of the course is to familiarize students with issues connected with security in IT systems, especially from the perspective of a specialist responsible for implementation of IT systems or an IT manager. Students will be provided with fundamental engineering knowledge necessary to build and maintain computer networks.

Business Process Modelling, 30 hours of lectures, 30 hours of classes

On completion of the course, students should understand the importance of business process modeling, know the methods, tools, notations and languages for business process modeling (especially the BPMN notation), understand the Workflow model and be familiar with the tools and programming languages of workflow processes. The student should also acquire the ability to identify and model a business process in appropriate notation with the use of a process modeling tools and conduct a simulation of the process. The participants of the course should be prepared to work in a project team and be able to assume various project roles.

Quality Management, 15 hours of lectures, 15 hours of classes

The course focuses on presenting the essence of quality and the basics of quality management, especially in the context of efficient functioning of a modern enterprise. On completion of the course students will be familiar with concepts, methods and tools used in quality improvement, various quality models and systems.

Physical Education, 30 hours of classes

The course focuses on developing physical fitness. Getting to know various individual and team sports. Improvement of motor skills. Acquiring the ability to deal with stress. Ability to cooperate in a team. Overcoming barriers and weaknesses.

SEMESTER 5

IT Project Management, 30 hours of lectures, 30 hours of classes

The aim of the course is to familiarize students with modern methods of project management with particular emphasis on the specificity of IT project management and understanding the complexity of running IT projects. Participants will learn about methods of conducting and supervising IT projects, practical project management tools and achieving project goals set by project sponsors. The course will also address issues pertaining to managing risk, quality, versions, teams, time and costs of projects. Students will be acquainted with modern project management methodologies (PMBOK, Prince 2, UP, XP, SCRUM), IT infrastructure management methods (ITIL) and commonly used IEEE standards. On completion of the course, students will be prepared to effectively participate in the work of project teams and possess skill needed to manage IT projects.

Human-Computer Interaction, 30 hours of lectures, 30 hours of classes

The aim of the course is to familiarize students with the basic issues of designing human-computer interaction, creating useful user interfaces and using the User-Centered Design (UCD) approach in designing, testing and improving the usability of software, applications, digital services and IT systems.

Intelligent Management Systems, 30 hours of lectures, 30 hours of classes

The course aims to introduce students to the web-based Business Intelligence platform - SAS Viya - operating in the analytics lifecycle, which is part of the SAS Institute. Students gain information on BI techniques and tools starting from data access, research and preparation, through exploration, analysis, reporting and sharing.

Enterprise Resource Planning System, 30 hours of lectures, 30 hours of classes

The aim of the subject is to familiarize students with the principles of functioning of integrated ERP (Enterprise Resource Planning) IT systems, which support the management of enterprise resources. The subject aims to present the key functions and modules of these

systems, their role in the business strategy of the enterprise and the importance of integrating various areas of activity, which enables effective planning, management and control of business processes. In particular, the subject aims to familiarize students with the SAP S/4HANA IT system, its operation, functionalities and application in the enterprise.

Technical Subject Elective 1 and 2, 30 hours of lectures, 30 hours of classes

For details refer to the Elective Subjects description.

Physical Education, 30 hours of classes

SEMESTER 6

Information Systems Creation, Integration and Testing, 30 hours of lectures, 30 hours of classes

The goal of the course is to familiarize students with basic issues of software engineering, including stages of software development and methods of increasing software quality. After the course the student should be able to select methods and tools for project engineering and use them in a team-based IT project.

Protection of Intellectual Property, 30 hours of lectures

Familiarizing students with basic intellectual property law acts, with the interpretation of regulations. Issues of copyright, property rights and personal rights will be discussed. Issues of copyright protection will be presented, also in the context of the use of works by AI (AI ACT); protection of the image, addressee and confidentiality of information sources. Other examples of issues include: copyright to computer programs; industrial property law; utility models, industrial designs, trademarks; protection of industrial property rights; protection of personal data/GDPR; provision of services by electronic means, electronic signature.

Speciality Lecture 1 and Speciality Lecture 2, 30 hours of lectures, 30 hours of classes

Courses depending on the chosen speciality area.

Technical Subject Elective 3, 30 hours of lectures, 30 hours of classes

For details refer to the Elective Subjects description.

Humanities Subject – Elective, 15 hours of lectures, 15 hours of classes

For details refer to the Elective Subjects description.

Final Project 1, 30 hours of classes

The aim of the seminar is to familiarize students with the principles of preparing diploma theses and with the methodological apparatus and tools typical for this type of work. The seminar is to prepare students to present the results of the diploma thesis to the examination board. During the seminar, students should present the thematic areas of their diploma theses, define its purpose and scope of work, present engineering problems that require solutions and present preliminary research results and schedules of work on the diploma thesis.

VII SEMESTER

Business Plan and Assessment of Investment Effectiveness, 15 hours of lectures, 15 hours of classes

The aim of the course is to present theoretically and methodologically important issues related to the principles of preparing a business plan and entrepreneurship. The classes will present the use of a business plan when making decisions related to: starting a business, obtaining a loan and obtaining EU funding. The thematic scope of the lectures includes: analysis of the business plan structure, analysis of the company, product, market, demand and competition, principles of preparing an economic-financial plan. Students (in groups of three) will prepare a business plan, financial plan and solve practical tasks related to tax issues.

Monographic Lecture, 30 hours of lectures, 30 hours of classes

For details refer to the Elective Subjects description.

Speciality Lecture 3, 30 hours of lectures, 30 hours of classes

Courses depending on the chosen speciality area.

Final Project Seminar 2, 30 hours of classes

The aim of the seminar is to develop students' skills in preparing diploma theses. The seminar is to prepare students to present the results of the diploma theses to the examination board. During the seminar, students should present the results of partial and final results of the diploma theses.

6-month Internship (720 h)

The general objective of the internship is to verify, develop and practically apply the skills acquired by the student during his/her studies, as well as to expand the knowledge he/she has acquired. The student learns to be independent and to search for solutions to the problems he/she encounters. He/she can gain experience, knowledge about the labor market and the required skills, and also self-assess his/her own qualifications. All this increases his/her chances of being competitive and finding good employment in the future. The internship allows the student to familiarize himself/herself with the functioning of companies and new information technologies from a practical perspective and often proves helpful in completing his/her diploma thesis. At the Faculty of Information Management, the internships include using modern information systems and using IT tools in management. They can include a wide range of verification of knowledge in the field of management and computer science.