
Faculty of Organization and Informatics, University of Zagreb
Courses delivered in English in the academic year 2018/19

Undergraduate study programmes

Undergraduate study programmes:

- **Information and Business Systems**
- **Economics of Entrepreneurship**

Business Communication

- Lecturers: Full Prof. Goran Bubaš, Ph. D., Assoc. Prof. Violeta Vidaček Hainš, Ph. D., Asst. Prof. Dijana Plantak Vukovac, Ph. D., Antonela Čižmešija, M. Inf.
- 3 ECTS
- Winter semester

Summary:

The main goal of the course is student adoption of basic knowledge required for successful interpersonal communication in business environment and efficient figuration of messages in public and written communication and during the presentation of information. Also, the students will gain required knowledge and skills in applied fields of business communication, such as execution of presentation, sales communication, negotiation, conduction of meeting, interviewing, electronic mediated communication etc.

Customer Relationships Management

- Lecturers: Assoc. Prof. Damir Dobrinić, Ph. D., Asst. Prof. Sandro Gerić, Ph. D., Iva Gregurec, Ph. D., Teaching Assistant
- 4 ECTS
- Winter semester

Summary:

The goals is to acquire core knowledge and methods to manage customer satisfaction and customer relationships. Upgrading on the basics of marketing and electronic business. Getting acquainted with organizational and business models, as well as technologies and tools for managing customer relationships.

Informatics Services Management

- Lecturers: Full. Prof. Vjeran Strahonja, Ph. D, Asst. Prof. Renata Mekovec, Ph. D., Katarina Pažur Aničić, Ph. D., Teaching Assistant
- 4 ECTS
- Winter semester

Summary:

The main goal of this course is to provide students with detailed overview of IT services, make them understand the rapidly growing service economy sector, understand and apply best practices and reference models for IT services and prepare them for professional service delivery within an service organization, including the definition of service strategy, service design, service management and service delivery. The practical part of this course enables students to meet all phases of service design while working on a team project.

Databases 1

- Lecturers: Full Prof. Mirko Maleković, Ph. D., Assoc. Prof. Kornelije Rabuzin, Ph. D., Martina Šestak, M. Inf.
- 6 ECTS
- Summer semester

Summary:

The aim of this course is straightforward: at the end of the course, students should be able to understand all the three components of Relational Database Management Systems (structural, operational, and integrity component). In addition, students should be able to realize and manage Relational Databases using SQL (creation, modification, queries, indexes, security and transactions). The text focuses on the use of relational database technology and SQL (the standard query language used to communicate with relational database management systems) as it is what students will encounter in businesses today.

Business English I and II

- Lecturer: Andreja Kovačić, lecturer
- 3 ECTS
- Winter and Summer semester

Summary:

The aim of the course is to introduce students with the terminology in the field of business English and morphological and syntactic peculiarities of business English. Students use acquired knowledge in language production and interaction in given communication situations in business context, in oral and written form. Students learn about basic stylistic and structural characteristics of representative texts in the fields of business English and adopt strategies for interpreting texts and reference texts. Students will master the communication skills needed for listening a foreign language conferences, discussions or presentation, including the basics of managing in a multicultural context. Students can also use information technology for the purpose of self-expanding vocabulary and reading skills (analysis, synthesis of information) and through teamwork, through the provision of written assignments or oral presentations.

Operations Management

- Lecturers: Asst. Prof. Martina Tomičić Furjan, Ph. D., Asst. Prof. Katarina Tomičić-Pupek, Ph. D., Asst. Prof. Igor Pihir, Ph. D.
- 5 ECTS
- Summer semester

Summary:

The course covers topics that introduce students to business operations principles in productive companies and other profit and non-profit organizations, presents the company as a system and

explains the role of modern ICT in company's management, systemizes processes in catalogue groups and systemizes informatics, material and other organization courses. Students also learn business logic and functioning algorithm of typical business processes.

Business Decision Making

- Lecturers: Prof. emer. Tihomir Hunjak, Ph. D., Assoc. Prof. Nina Begičević, Ph. D., Nikola Kadoić, M. Inf.
- 4 ECTS
- Summer semester

Summary:

The course introduces the students to basics of business decision making and theories of decision making. It analyses separate phases of the decision-making process and factors which influence the process of decision making. Also, it is very important to introduce the students to different methods of decision making, and to various circumstances in which decision making is needed. Special emphasis is placed upon role and meaning of information systems as a support to decision making, and upon methods and techniques of decision making which ease the decision-making process. Information systems serve as the foundation for management because they present continued process of gathering various information which are processed for the needs of decision making.

Operations Research 1

- Lecturers: Full Prof. Vesna Dušak, Ph. D., Nenad Perši, Ph. D., Asst. Prof. Nikolina Žajdela Hrustek, Ph. D.
- 5 ECTS
- Summer semester

Summary:

The main goal of the course is to introduce the students to the theoretical basement, methods and techniques of linear programming in operations research and management science, and to understand its application in purpose. According to this, purpose of the course is to help the students in developing sense for mathematical formalization of practice problems using information technology (tools from the shelf or homemade programme packages).

Software Engineering

- Lecturers: Full. Prof. Vjeran Strahonja, Ph. D, Asst. Prof. Zlatko Stapić, Ph. D., Marko Mijač, M. Inf., Ivan Švogor, Ph. D., Boris Tomaš, Ph. D., Mišo Džeko, M. Inf.
- 7 ECTS
- Summer semester

Summary:

Providing a detailed overview of software engineering and teaching the students methodological approach to software product development.

Graduate study programmes

- **Study programmes in informatics:**
 - *Information and Software Engineering*
 - *Business Systems Organization*
 - *Databases and Knowledge Bases*
 - *Informatics in Education*
- **Graduate study programme Economics of Entrepreneurship**

Software Analysis and Design

- Lecturers: Full Prof. Neven Vrčec, PhD, Zlatko Stapić, PhD
- 6 ECTS
- Winter semester

Summary:

The aim of the course Software Analysis and Design is to introduce students to the life cycle and stages of development of modern software products. Program development has become an important branch of industry that has its own laws and specific standards. The course goes through all stages of the life cycle: analysis of the domain name system, the specification of program requirements, methods and techniques program modelling, program development, program testing and debugging. In addition, students learn fundamental approaches that are used in development and engineering of complex software systems and modern tools and procedures that make this process easier.

Computer-Mediated Communication

- Lecturers: Full Prof. Goran Bubaš, Ph. D, Asst. Prof. Mario Konecki, Ph. D., Asst. Prof. Dijana Plantak Vukovac, Ph. D., Antonela Čižmešija, M. Inf)
- 4 ECTS
- Winter semester

Summary:

The Internet Communication is increasingly present in contemporary educational and business environment. The course provides the acquisition of knowledge, skills and specific competencies in various areas of Internet use for business and private communication at the individual level, group or team, as well as in mass communication via the Internet. It also provides knowledge of communication and psychology to effectively present information on the Internet and design products and services that are based on communication with customers via the Internet.

Discrete Structures and Graph Theory

- Lecturers: Full Prof. Blaženka Divjak, Ph. D, Damir Horvat, M.A., Marcel Maretić, Ph.D.
- 6 ECTS
- Winter semester

Summary:

The main goal of the course is to introduce the students to the mathematical theories necessary for information sciences (*discrete mathematics*, mostly). One of the goals of this course is to help the

students develop skills of rigorous mathematical thought, necessary for a successful career in ICT. Students should become familiar with different formalisms. Students should be able to observe connections between formal theory and real-world situation. This course aids development of mathematical strictness (to a certain degree) and teaches students how to adequately apply formalisms to specific problem situation. Additionally, the goal is to develop connections between discrete mathematics, informatics and algorithmic thinking.

Knowledge Bases and Semantic Web

- Lecturers: Assoc. Prof. Sandra Lovrenčić, PhD
- 5 ECTS
- Winter semester

Summary:

The aim of course Knowledge Bases and Semantic Web is to acquaint students with two important, intertwined areas, dealing with intelligent structuring and intelligent processing of data (information) in the environment of the Web. Structured data in dynamic interaction with each other, a combination of classic search and deductive statements, resulting in knowledge bases. In recent years, the notion of knowledge base is replaced by the notion of ontologies. Semantic Web is set in the context of the Web and provides intelligent access to heterogeneous, distributed IT facilities. Fields of application are constantly expanding and now include knowledge management (including business rules systems), electronic commerce (including systems of automated negotiation), natural language processing... The course will provide students with the necessary theoretical knowledge, acquaint them with modern programming languages and tools, and pass them through practical work on computers equipped for the use of Semantic Web systems and their development.

ERP systems

- Lecturers: Full Prof. Neven Vrčec, Ph. D., Assoc. Prof. Ruben Picek, Ph. D., Marko Mijač, M. Inf
- 5 ECTS
- Winter semester

Summary:

The aim of the course is to introduce students to the role of the ERP system in modern enterprises. The course describes how ERP systems are used for integration of business processes and shows the relationship between business processes and software modules that make such a complex information system. The structure of the ERP system is being analyzed at the theoretical and practical level. It also emphasizes out the importance of organizational preparations for the introduction of the ERP systems. The course analyzes the methods and tools for evaluation of the organization, implementation of ERP systems and maintenance of achieved results. It also analyzes the project structure and resources, roles and responsibilities necessary for effective implementation.

Quality and Measurement in Informatics

- Assoc. Prof. Valentina Kirinić, Ph. D., Mario Žgela, Ph. D., Assoc. Prof. Melita Kozina, Ph. D.
- 5 ECTS
- Winter semester

Summary:

The aim of the course is to familiarize students with a comprehensive approach to quality management in all aspects of information technology, as well as the necessary measurements which are an essential part of such systems. In doing so, quality is being analysed in details as modern business paradigm, it shows: ISO 9000 system quality model, application of standards in informatics, improvement methods in

the software production, support methods to the development of the IS, and the application of statistical methods and techniques in informatics. An integral part of such systems are the measurements (metrics). The course gives a taxonomy of modern areas of measurement in the information technology, and it shows certain parts, such as: measuring the quality of business systems, measurement of quality of business processes, measurements in structural and object development of IS, measurements of the investment effectiveness in information technology, measurements of some specific areas, such as readiness of a region for e-business, the level of security of IS, and so on. The course gives some theoretical foundations in this field, but also shows the practical application of related concepts, methods, techniques and tools. It is designed for professionals who want to gain knowledge of this field to lead such projects in practice and continue to deepen their knowledge.

Intelligent Systems

- Lecturers: Full Prof. Božidar Kliček, Asst. Prof. Dijana Oreški, Ph. D.
- 4 ECTS
- Winter semester

Summary:

The aim of this course is to create a firmly theoretical knowledge of intelligent systems technology and their most significant techniques, which should give a listener the competence to solve complex problems of practical implementation, as well as the research. In addition, the emphasis is on gaining competences for practical usage of theoretical knowledge to solve complex problems.

Modelling and Simulations

- Lectures: Full Prof. Vesna Dušak, Ph. D., Nenad Perši, Ph. D., Asst. Prof. Nikolina Žajdela Hrustek, Ph. D.)
- 5 ECTS
- Winter semester

Summary:

The aim of the course is to introduce the students with the theoretical backgrounds, methods and techniques of simulation modelling related to problems whose nature is not sufficiently explored or because of their specific behaviour and structure, it is necessary to model and solve them by methods and techniques that correspond to the legitimacy of their stochastic behaviour and areas of practice to which this knowledge can be applied.

Information Systems Security

- Lecturer: Asst. Prof. Tonimir Kišasondi, Ph. D.
- 5 ECTS
- Winter semester

Summary:

The aim of the course is to introduce the students to the area of Information Security. The course focuses on the area of organizational and technical aspects of information security: from people, policy and processes to the technical measures like application security, cryptography, security testing and security architecture, we will show the ecosystem of threats and attacks on information systems with the combination of best practices how to design secure systems and organizations.

Strategic Human Resources Management

- Lecturers: Assoc. Prof. Marina Klačmer Čalopa, Ph. D., Ivana Đunđek Kokotec, M. Econ.
- 4 ECTS
- Winter semester

Summary:

The goal is to provide knowledge and help develop skills for human resource management in business organizations. Through various topics and case studies, students can develop an understanding of the strategic importance of HR development and management of HR as well as gain insight in benefits of HRM in business organizations in a competitive environment. The aim is to show modern methods and techniques in the area of HRM through theories and current research results and discussion with experts.

Organisational Performance Management

- Professors: Assoc. Prof. Robert Fabac, PhD, Asst. Prof. Martina Tomičić Furjan, PhD
- ECTS: 5
- Winter semester

Summary:

The development of an organizational performance measurement model and its corresponding measurement system is a process covered by the continuum of strategic planning of an organization. Each model is, like any organization, unique and specific, but it is possible to define procedural guidelines and steps, which organizations can apply in order to make the development process easier and more successful. This course is aimed for students in graduate level to learn how to develop a strategic plan for an organization, that includes performance measurement as it's main focus, using Balanced Scorecard as the most common performance measurement method.

Entrepreneurial strategies

- Lecturers: Asst. Prof. Kristina Detelj, Ph.D., Assoc. Prof. Ksenija Vuković, Ph.D., Marijana Bubanić, M. Econ.
- ECTS: 4
- Study level: Graduate level
- Winter semester

Summary:

The aim of the course is to enable students to identify and evaluate entrepreneurial opportunities. We try to present students with potential entrepreneurial strategies (mostly by introducing numerous business cases) and develop their ability to analyze and select a suitable entrepreneurial strategy. We want to encourage students to take a strategic approach to entrepreneurship that will enable an innovative approach to entrepreneurial venture of any size. To do so they have to gain knowledge of theoretical and practical foundations of entrepreneurship. They have to know different skills of organizing and managing entrepreneurial ventures, be familiar with marketing techniques and be able to create an operating business plan.

Internet Security

- Lecturers: Full Prof. Miroslav Bača, Ph. D., Petra Grd, Ph. D.
- 4 ECTS
- Summer semester

Summary:

Acquisition of basic knowledge and skills necessary to operate with internet and networked systems security, especially in everyday network environment and their implementation in everyday life is the

basis of the course. Students will study the basic mistakes, weaknesses, security risks, countermeasures and protection, ways of collecting, processing, storing and comparing information and their use in security systems, and students will be informed about the latest developments in the field of Internet security. The course is structured to provide a complete overview of the most important internet security features. At the present time it is impossible to imagine any form of work activities without a computer network. The development of computer networks is limited by the development and connectivity within the Internet. Internet Security has implications for the safety of computer networks that are within the Internet or are connected through it or over it. The course is oriented to the end user in a networked environment. The course deals with major threats, security risks, weaknesses, preventive measures and protection of networked computers.

Electronic and Mobile Business

- Lecturers: Full Prof. Neven Vrčec, Ph. D. Assoc. Prof. Sandro Gerić, Ph.D.
- 5 ECTS
- Summer semester

Summary:

The main goal of the Electronic and mobile business course is to introduce students to electronic and mobile business at an implementation, management and strategic level. The course outlines the relationship between internal business processes in the company and the environment in the conditions of global connectivity and business.

The course analyzes modern technology on which electronic business solutions are based. The role of the Internet and mobile telecommunications networks is also presented, as an important infrastructure that imposes new business models and concepts of market survival. The course analyzes the most successful examples of electronic and mobile business, as well as the big problems the company faces when trying to establish a new business concept.

Special emphasis is placed on internationally accepted standards relevant to this topic. The course focuses on young, practically-oriented implementation and management experts who should creatively introduce systems to support e-business and incorporate them into contemporary business models. They should become experts who create software solutions for e-business support and managers who base their decisions on consistent and quantitative business performance measures.

Negotiation in International Environment

- Lecturers: Assoc. Prof. Violeta Vidaček Hainš, Ph. D., Asst. Prof. Dijana Plantak Vukovac, Ph. D., Antonela Čižmešija, M. Inf.
- 4 ECTS
- Summer semester

Summary:

Main goals of the Course are familiarizing with the specific characteristic of the negotiation in the international context, negotiation techniques and communication skills that leads to international agreements; Efficacy applying negotiation techniques and communication skills in face to face interpersonal communication and computer mediated communication.

Remark: This list is subject to change. In general, we have 3 types of English taught courses:

- 1) Courses offered as individual consultations with lecturers, literature in English and exam;
- 2) Courses offered as individual consultations with lecturers + laboratory work, literature in English and exam.
- 3) Courses that are completely English based: full teaching hours (lectures, seminars, laboratory work), exam and literature in English.

Most of the courses are also offered as blended learning courses. Therefore, students can use LMS to study some of the course materials. It is also possible to make a study plan with courses mixed from different study programmes and study levels.

For more information about the courses please contact:

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