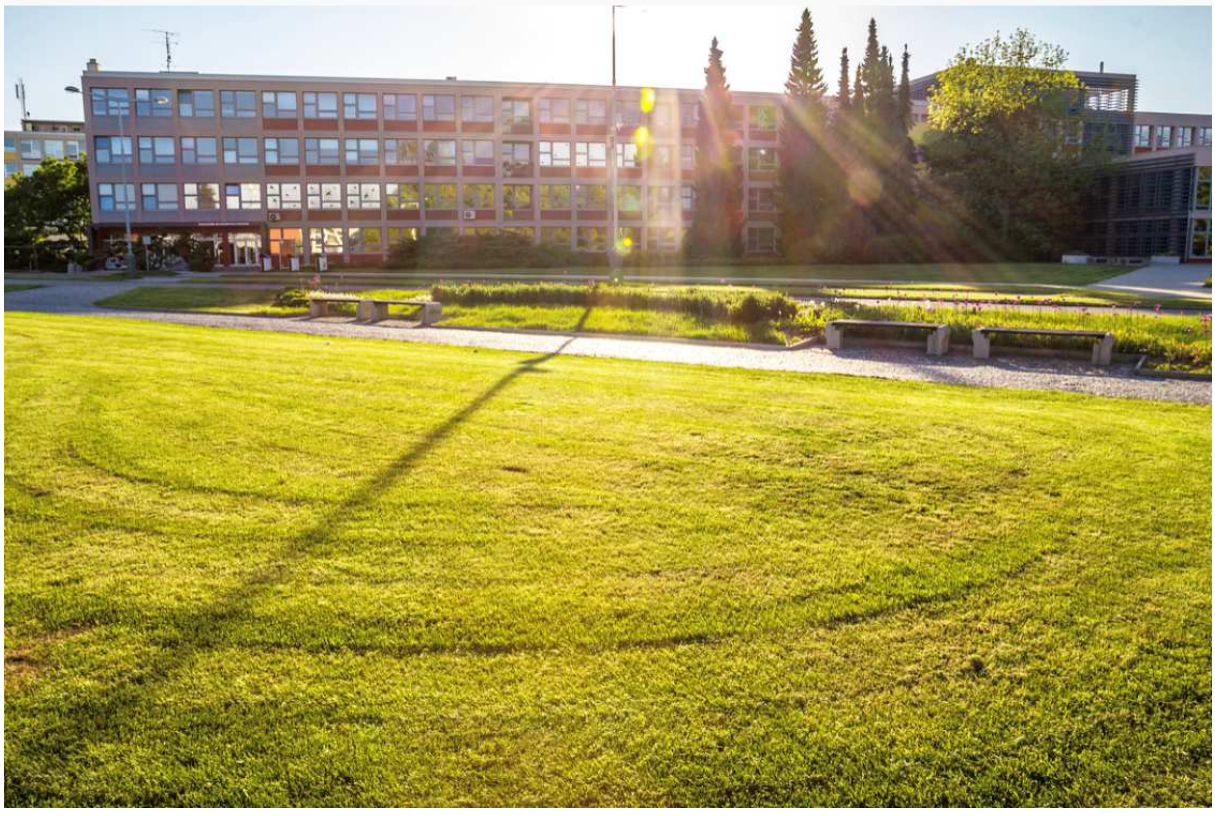
CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR COURSES TAUGHT IN ENGLISH

- Bachelor in Economics and Management
- Bachelor in Business Administration
- Bachelor in Informatics



www.StudyInEnglish.cz

Foreword

Dear International Students,

It is my pleasure to introduce to you our ***Courses taught in English***, which have been prepared by our International Relations Office. This brochure provides basic information and the syllabi of the Master study programmes taught in English at our faculty.

We offer four masters and three bachelor study programmes at our faculty. They would accommodate 400 new students who will be accepted to studies in the new academic year.

Masters in Business Administration
Masters in Economics and Management
Masters in Informatics
Masters in European Agrarian Diplomacy
Bachelor in Economics and Management
Bachelor in Informatics
Bachelor in Business Administration

I hope you will find this brochure useful and that it will help you in planning your study. I believe you will enjoy the educational as well as cultural heritage of Prague.

During the previous year our faculty hosted more than 200 incoming Erasmus students. You will find our academic staff and administrators well prepared for your educational stay and will be happy to answer your questions. We will do our best to make you feel welcome at our University.

I am looking forward to meeting you in Prague during the next academic year.

With my best wishes,

Ing. Martin Pelikán, Ph.D.

Dean

Faculty of Economics and Management

Czech University of Life Sciences Prague

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CONTENT

Bachelor in Economics and Management

Programme structure

Bachelor in Economics and Management

Programme Structure

FIRST YEAR

	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory		Obligatory
autumn semester	Mathematics 5 ECTS Credits	Fundamentals of Political Science 5 ECTS Credits	Agricultural Systems I 5 ECTS Credits	Psychology 5 ECTS Credits	Informatics 5 ECTS Credits	Introduction to study 1 ECTS Credits	English for Academic Purposes 2 ECTS Credits	Sport 2 ECTS Credits
spring semester	Mathematical Methods for Economics 5 ECTS Credits	Mathematical Methods for Statistics 5 ECTS Credits	Agricultural Systems II 5 ECTS Credits	Science, Philosophy and Society 5 ECTS Credits	Information Technologies 5 ECTS Credits	English for Business Purpose 3 ECTS Credits	Sport 2 ECTS Credits	

Final State Examination (FSE) courses that are obligatory and must always be passed/recognized at CULS in order to get Bachelor Diploma.
All other subjects are tradable for any other courses passed at host Universities during exchange studies (LLP/Erasmus…)

Bachelor in Economics and Management

Programme Structure

SECOND YEAR

	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory
autumn semester	Empirical Research in Economics 5 ECTS Credits	Microeconomics 5 ECTS Credits	Statistics I 5 ECTS Credits	Economics of Agrarian Sector 5 ECTS Credits	Introductory Social Research Methods 5 ECTS Credits	Foreign Language (non English) 2 ECTS Credits	
spring semester	Financial Economcis 5 ECTS Credits	Macroeconomics 5 ECTS Credits	Statistics II 5 ECTS Credits	Trade and Commerce 5 ECTS Credits	Theory of Management 5 ECTS Credits	Bachelor Thesis 5 ECTS Credits	Foreign Language (non English) 3 ECTS Credits

Final State Examination (FSE) courses that are obligatory and must always be passed/recognized at CULS in order to get Bachelor Diploma.
All other subjects are tradable for any other courses passed at host Universities during exchange studies (LLP/Erasmus…)

Bachelor in Economics and Management

Programme Structure

THIRD YEAR

	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory
autumn semester	Enterprise Economics 5 ECTS Credits	Information Systems 5 ECTS Credits	Human Resources Management 5 ECTS Credits	Marketing Management 5 ECTS Credits	Restricted Optional Subject[1)] 5 ECTS Credits		Bachelor thesis 5 ECTS Credits
spring semester	Rural Sociology 5 ECTS Credits	Theory of Accounting 5 ECTS Credits	Fundamentals of Law 5 ECTS Credits			Bachelor Practise 5 ECTS Credits	Bachelor thesis 10 ECTS Credits

Final State Examination (FSE) courses that are obligatory and must always be passed/recognized at CULS in order to get Bachelor Diploma.
All other subjects are tradable for any other courses passed at host Universities during exchange studies (LLP/Erasmus…)

1) **Natural Resources Management**
   Environmental Economics

Bachelor in Informatics

Programme structure

Bachelor in Informatics

Programme Structure

FIRST YEAR

	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory
autumn semester	Introduction to Principles of Computers 5 ECTS Credits	Algorithm Development 5 ECTS Credits	Theory of Managing Organisational Systems 5 ECTS Credits	Mathematical Logic and Graphs 5 ECTS Credits	Fundamentals of Juridical Sciences 5 ECTS Credits	Introduction to Studies 1 ECTS Credits	Foreign Language[1)] 2 ECTS Credits	Physical Education I. 2 ECTS Credits
spring semester	Computer Architecture 5 ECTS Credits	Programming 5 ECTS Credits	Object Modelling 5 ECTS Credits	Mathematics 5 ECTS Credits	Psychology of Person. and Soc. Psychology 5 ECTS Credits		Foreign Language[1)] 3 ECTS Credits	Physical Education II. 2 ECTS Credits

Final State Examination (FSE) courses that are obligatory and must always be passed/recognized at CULS in order to get Bachelor Diploma.
All other subjects are tradable for any other courses passed at host Universities during exchange studies (LLP/Erasmus…)

1) **English for IT**

Bachelor in Informatics

Programme Structure

SECOND YEAR

	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory		Obligatory	Obligatory
autumn semester	Database Systems 5 ECTS Credits	General Economics I. 5 ECTS Credits	Component Based SW Development 5 ECTS Credits	Applied Mathematics for IT 5 ECTS Credits	CULS Optional Course[1)] 5 ECTS Credits		Foreign Language[2)] 3 ECTS Credits	
spring semester	Operating Systems and Computer Networks 5 ECTS Credits	Markup Languages 5 ECTS Credits	Statistics 5 ECTS Credits	Operations Research and Systems Analysis 5 ECTS Credits	CULS Optional Course[3)] 5 ECTS Credits		Foreign Language[2)] 2 ECTS Credits	Bachelor Thesis Assignment I. 5 ECTS Credits

Final State Examination (FSE) courses that are obligatory and must always be passed/recognized at CULS in order to get Bachelor Diploma. All other subjects are tradable for any other courses passed at host Universities during exchange studies (LLP/Erasmus…)

1) **Human-computer Interaction** / Administration and Processing of Geographical Data

2) German / French / Spanish

3) **Information System – SAP** / Enterprise Information Systems

Bachelor in Informatics

Programme Structure

THIRD YEAR

	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory		Obligatory	Obligatory
autumn semester	Unix Operating Systems 5 ECTS Credits	Web design 5 ECTS Credits	Business Economics 5 ECTS Credits	Fundamentals of Accounting 5 ECTS Credits	CULS Optional Course[1)] 5 ECTS Credits			Bachelor Thesis Assignment II. 5 ECTS Credits
spring semester	Software Engineering 5 ECTS Credits	Project Management Methods 5 ECTS Credits	Statistical Software Systems 5 ECTS Credits				BSc Degree Practicals 5 ECTS Credits	Bachelor Thesis defend and Final State Examination 10 ECTS Credits

Final State Examination (FSE) courses that are obligatory and must always be passed/recognized at CULS in order to get Bachelor Diploma. All other subjects are tradable for any other courses passed at host Universities during exchange studies (LLP/Erasmus…)

1) **Interaction Design** / Data Security

Bachelor in Business Administration

Programme structure

Bachelor in Business Administration

Programme Structure

FIRST YEAR

	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory		Obligatory
autumn semester	Mathematics 5 ECTS Credits	Science, Philosophy and Society 5 ECTS Credits	Agricultural Systems I 5 ECTS Credits	Information and Communication Technologies 5 ECTS Credits	Essentials of Juridical Science 5 ECTS Credits	Introduction to study 1 ECTS Credits	English for Academic Purposes 2 ECTS Credits	Physical Education 2 ECTS Credits
spring semester	Mathematical Methods for Economics I 5 ECTS Credits	Psychology of Personality and Communication 5 ECTS Credits	Agricultural Systems II 5 ECTS Credits	Internet Technologies 5 ECTS Credits	Commercial and Civil Law 5 ECTS Credits		English for Business Purposes 3 ECTS Credits	Physical Education 2 ECTS Credits

Final State Examination (FSE) courses that are obligatory and must always be passed/recognized at CULS in order to get Bachelor Diploma. All other subjects are tradable for any other courses passed at host Universities during exchange studies (LLP/Erasmus…)

Bachelor in Business Administration

Programme Structure

SECOND YEAR

	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory		Obligatory
autumn semester	Mathematical Methods for Economics II 5 ECTS Credits	Economics I 5 ECTS Credits	Statistics I 5 ECTS Credits	Accounting Theory 5 ECTS Credits	Planning and Project Management 5 ECTS Credits		Foreign language[1)] 2 ECTS Credits	
spring semester	Political Science 5 ECTS Credits	Economics II 5 ECTS Credits	Statistics II 5 ECTS Credits	Accounting for Entrepreneurs 5 ECTS Credits	E-Commerce and Business 5 ECTS Credits		Foreign language[1)] 3 ECTS Credits	Bachelor Thesis 5 ECTS Credits

1) German / French / Spanish / Czech

Final State Examination (FSE) courses that are obligatory and must always be passed/recognized at CULS in order to get Bachelor Diploma. All other subjects are tradable for any other courses passed at host Universities during exchange studies (LLP/Erasmus…)

Bachelor in Business Administration

Programme Structure

THIRD YEAR

	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory	Obligatory		Obligatory
autumn semester	Psychology and Ethics in Business 5 ECTS Credits	Management Skills 5 ECTS Credits	Agrarian Sector Economics 5 ECTS Credits	Theory of Trade 5 ECTS Credits	Investment and Long Term Financing 5 ECTS Credits			Bachelor Thesis 2 5 ECTS Credits
spring semester	Business Economics 5 ECTS Credits	Management Theory 5 ECTS Credits	Information Systems 5 ECTS Credits				BSc Degree Practicals 5 ECTS Credits	Bachelor Thesis 3 Defence 10 ECTS Credits

Final State Examination (FSE) courses that are obligatory and must always be passed/recognized at CULS in order to get Bachelor Diploma. All other subjects are tradable for any other courses passed at host Universities during exchange studies (LLP/Erasmus…)

Bachelor in Economics and Management

Programme syllabi

Bachelor EM PROGRAMME SYLLABI

FIRST YEAR

AUTUMN SEMESTER

SPRING SEMESTER

SECOND YEAR

AUTUMN SEMESTER

SPRING SEMESTER

THIRD YEAR

AUTUMN SEMESTER

SPRING SEMESTER

Bachelor in Economics and Management

Programme syllabi – First year

MATHEMATICS (EAE59E)

Department of Systems Engineering
Faculty of Economics and Management

Lecturer: Ing. Robert Hlavatý, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Lectures are supported by LMS Moodle, which offer all basic study materials. The combination of lectures and seminars gives the students the opportunity to practically develop their knowledge from lecture in the seminars. The seminars are used to develop basic skills in the set theory, relations, graph theory, of the functions theory, limit of the function and process of differentiation, and finally of the linear algebra and theory of systems of linear equations. The preparation for the seminars is the part off-class activities of the student.

Lectures:

1. Introduction to the Set Theory
2. Relations, Ordering, Functions
3. Graph Theory
4. Basic Functions
5. Function of Single Variable
6. Limits and Derivatives of Function
7. Course of Function
8. Function in Economics
9. Linear Algebra and Vector Space
10. System of Linear Equations I
11. System of Linear Equations II
12. Practical application of SLE

Seminars:

1. Set Theory and Relations
2. Graph theory models
3. Limits and Derivatives of Function
4. Course of Function - Practical Applications
5. Matrix operations, Jordanian Elimination
6. System of Linear Equations

Study literature:

1. Hoffmann, L. D., Bradley, G. L.: Finite Mathematics with Calculus, McGraw Hill, Inc., New York, 1995, ISBN 0-07-029352-X
2. Eric W. Weisstein: MathWorld - A Wolfram Web Resource, http://mathworld.wolfram.com
3. http://en.wikipedia.org/wiki/Main_Page
4. http://www.pef.czu.cz/kosa/MathEcon
5. http//en.wikipedia.org/wiki/PortalMathematics
6. webpages moodle.czu.cz

FUNDAMENTAL OF POLITICAL SCIENCE (EHE06E)

Department of Humanities
Faculty of Economics and Management

Lecturer: Ing. Václav Bubeníček, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36
Prerequisites: Philosophy, Sociology

Objective and general description:

Graduates dispose of basic knowledge of political system functioning, function of political parties and institutions of the civic society. They are able to distinguish between types of states by form of government and regional administration division. They understand the issue of elections and electoral systems, of political legitimacy and representation of interests. They are familiar with the theory of democracy and have an overview of the basic political ideologies. They understand the issue of human rights. They have a basic knowledge of the basic tasks and contexts of foreign policy and international relations.

Education plan:

1. Politics, political power and political system.
2. Nations, states and nationalism.
3. Theory of democracy and democratic political regimes.
4. Separation of powers. Presidential and parliamentary form of government.
5. Elections and electoral systems I. Model of electoral system. Majority and plurality electoral systems.
6. Elections and electoral systems II. PR systems and mixed electoral systems.
7. Political parties and political party systems. Theory of coalitions.
8. Political ideologies I. Liberalism, Conservatism and Socialism.
9. Political ideologies II. Other political ideologies. Political orientation.
10. Non-democratic political regimes. Authoritarian and totalitarian regimes.
11. Political movements and interest groups. Resistance, Rebellion and Revolution.
12. International relations and international political system.

Study literature:

1. HEYWOOD, A. Politics. 3 vyd. Basingstoke: Palgrave Macmillan, 2007. 478 s. ISBN 9780230524972.
2. HEYWOOD, A. Political Ideologies. 4 vyd. London: Palgrave Macmillan, 2007. 366 s. ISBN 9780230521797.
3. ZAKARIA, F. The Post-American world. New York: W W Norton & Company Incorporated, 2008. ISBN 9780393062359.

AGRICULTURAL SYSTEMS I (AHA29E)

Department of Agroenvironmental Chemistry and Plant Nutrition

Faculty of Agrobiology, Food and Natural Resources

Lecturer: prof.Ing. Pavel Tlustoš, CSc.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The subject gives to students a general overview about different farming systems following specific conditions and about factors affecting crop production and its quality including nowadays perceptions of landscape countryside.

Topics:

1. Structure and functions of agroecosystems
2. Main agricultural systems around the world, their relation the climate and environment
3. Soil fertility, and their parameters
4. Factors affecting plant growth and yield formation
5. Importance of nutrients for plant development and food quality
6. Environmental factors affecting crop production, agricultural production areas
7. Crop rotations, crop sequences, and forecrop value of main crops
8. Soil tillage and basic equipment used in soil cultivation
9. Weeds, pests, diseases, crop protection methods and integrated pest management
10. Cereal crops - importance and position in crop production. Requirements for growing technology.
11. Root crops - importance and position in crop production. Requirements for growing technology
12. Oil crops - importance and position in crop production. Requirements for environment, growing technology
13. Madicinal, aromatic and spicy plants - dividing, importance, production, quality evaluation. Plant drugs.
14. Risks of contaminants spread in the environment for the quality of crops

Seminars:

1. Main soil parameters, their evaluation, principles of soil tests
2. Sources of organic matter in the soil, organic matter turnover
3. Estimation of nutrients rates applied into the soil, regulation of nutrient application
4. Agricultural regionalization (production areas, LFA, vulnerable areas), LPIS
5. Soil tillage (types, tools, conventional and minimalization practices), crop rotations
6. Plant protection - definitions, discriminating digits, qulaity evaluation
7. Cereal crops - dividing, discriminating digits, quality evaluation

8. Root crops and oil crops - dividing, discriminating digits, quality evaluation
9. Medicinal, aromatic and spicy plants - discriminating digits, degustation of choiced tea drinks
10. Individual project presentation, evaluation of speakers
11. Individual project presentation, evaluation of speakers
12. Individual project presentation, evaluation of speakers
13. Evaluation of semester activities, group discussion, creditation

Study literature:

1. Martin, J.H., Waldren, R.P., Stamp, D.L.(2006): Principles of Field Crop Production. Pearson Prentice Hall.
2. Lichtfouse E., Navarrete M., Debaeke, P., Souchére V., Alberola, C. (eds.): Sustainable Agriculture. Springer, 2009, 920 p.
3. Snapp, S., Pound B. (eds.): Agricultural Systems. Agroecology & Rural innovation for development. Elsevier, 2008, 386 p.
4. Subrahmanyam N. S., Samburty A. V. S. S. (eds.): Ecology (2nd Edition). Alpha Science, 2006, 670 p.
5. Gliessman S.R.: Agroecology: The ecology of sustainable food systems (2nd edition). CRC Press, 2006, 408 p.
6. Petr, J. et al. (1991): Weather and Yield. Elsevier, Amsterdam, 288 p.
7. Boote, K.J. et al. (1994) Physiology and Determination of Crop Yield. ASA, Madison, USA, 601 p.
8. Wild, A. (1988) Russell's soil conditions and plant growth. Longman Scientific Technical, XI. Ed. 991p.
9. Mengel K., Kirkby E.A. (2001) Principles of plant nutrition. Kluvier Academic Publisher, Dordrecht, 849p.
10. Kohout V., Hajná M. (2004) Worlds agricultural systems CUA Prague, 147p.

INFORMATION AND COMMUNICATION TECHNOLOGIES (ETE26E)

Department of Informatics
Faculty of Economics and Management

Lecturer: Ing. Miloš Ulman, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36
Prerequisites: Secondary school level informatics and mathematics

Objective and general description:

The course combines theoretical and practical introductions to the most important areas of the computer science - hardware, operating systems, programming languages, data structures, some application software with emphasis on spreadsheets, networks and network services. The practicals are held in the form of informal group work in PC classrooms on PC at local and network mode. There is one practical test at the end of semester. For particular seminars are prepared files and tasks on server to use them in individual work of students.

Lectures:

1. Information science,, information society and ICT development
2. Computer architecture and principles
3. Current standards of computer hardware
4. Software classification, operating systems
5. Current standards of software
6. Algorithmand s software development
7. Information systems
8. Global information world - computer networks
9. Global information world - Internet
10. Presentation on the Internet
11. Computer security (antivirus,firewall, etc.)
12. ICT in public administration, ICT and environment

Seminars:

1. Organisational, check-in, LMS Moodle
2. Microsoft Word - Styles
3. Microsoft Word - Styles, Figures, Sections
4. Microsoft Word - Tables
5. Microsoft Word test
6. Power Point presentation + speech
7. Microsoft Excel - Basics
8. Microsoft Excel - Advanced formulas
9. Microsoft Excel - Filters, Smmaries and Charts
10. Microsoft Excel - Pivot table
11. Microsoft Excel - test
12. Check-out

Core literature:

1. WILLIAMS, Brian K.; SAWYER, Stacey C. Using Information Technology. 10th ed. Complete. New York, NY: McGraw Hill. 2013. 576 p. ISBN 978-0-07-131800-6.
2. O´LEARY, Timothy J.; O´LEARY Linda I. Computing Essentials 2013. Making IT work for you. New York, NY: McGraw Hill. 2013. 533 p. ISBN 978-0-07-131753-5.
3. Studijní materiály kurzu Informatics dostupné z http://moodle.czu.cz
4. Wikipedia. [on-line]. URL http//www.wikipedia.org

PSYCHOLOGY (EPEC6E)

Department of Psychology
Faculty of Economics and Management

Lecturer: Mgr. Daniel Messele Balcha
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36
Prerequisites: Basics of general psychology from secondary school

Objective and general description:
Psychology as a basic subject is a prerequisite for further study of specialized subjects such as marketing and business control. It helps us to understand the factors affecting the development of human character in society, it conduces to self-knowledge and widens the knowledge in humanities. The aim of the subject is to provide knowledge of general psychological terms, regularities and theories, especially from cognitive and social psychology, interpersonal communication, motivation and personality. Students benefit from this knowledge in seminars in which they will develop practical skills for their future roles and positions thanks to active social learning.

Lectures:
1. Basic disciplines of psychology
2. Schools of psychology
3. Psychological methodology
4. Psychological dimensions of the development
5. Psychological processes
6. Personality traits
7. Abilities (creativity, intelligence)
8. Motivation
9. Stress
10. Social cognition
11. Social groups
12. Social behaviour

Seminars:
1. Interview
2. Self-perception
3. Personal growth
4. Training of individual creativity, Brainstorming
5. Bodily constitutions and quick assessment of temperaments
6. Social interaction

Core literature:
1. GROSS, RICHARD: Psychology: the science of mind and behaviour. London: Hodder Arnold, 2005. ISBN: 0340900989

ENGLISH FOR ACADEMIC PURPOSES (ELX67Z)

Department of Languages
Faculty of Economics and Management

Lecturer: BA Edmond Grady
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 2.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course is interactive. Lectures and seminars are based on specialised textbooks and articles from current English language periodicals which are used for further development of language skills including:

Expansion of academic vocabulary (40 words per week, with practical examples), Review of grammar, Discussion, Conversation, Debate, Formal writing format. All correction of written and oral presentations is done on a one-to-one basis with general explanations of common errors.

Seminars focus on mastering correct pronunciation in a mixed group of Erasmus students, reading and writing skills and discussing essay topics. Structuring of essays is also revised.

Students will learn the following skills:

Graduates will have **knowledge and understanding** of the background and history of the English language, its influence on other languages, and of its importance in academic and scientific communication.
They will also have increased knowledge of the common as well as specialised terms and phraseology used in English within the university environment, with emphasis on their subject areas. The initial purpose of the course was to assist them in following the lectures in other subjects presented in English.
Graduates will be able to apply their knowledge and understanding to writing structured essays at university level and reports at workplace level, and their English language **skills** to holding discussions on specialised topics at workplace.

Study literature:

1. Mounsey, Chris (2002). Essays and Dissertations, Oxford University Press, pp. 128.
2. Bryson, Bill (1990). Mother Tongue, Penguin Books, pp. 270.
3. Chilver, Joseph (1996). English for Business [for reading articles only], DP Publications, pp.304.
4. English language publications such as *The Economist*, *Prague Post* and other newspapers,

INTRODUCTION TO STUDY (EXE31Z)

Faculty of Economics and Management

Lecturer: Ing. Bohuslava Boučková, CSc.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 1.0
Assessment:
Marking scale:
Contact hours: 8

Objective and general description:

Introduction to Study introduces students to the basic rules and procedures for study at the Economic Faculty. In addition, students get familiar with the environment and practices of CULS. In this subject students are introduced to the Study and Examination Regulations, safety procedures, internal rules of the faculty, information systems and the key contact persons.

Lectures:

1. To acquaint students with the environment CUA and information systems, especially LMS Moodle, where students can find all other information required for completing the course.

Study literature:

Higher Education Act 111/1998 Coll.

MATHEMATICAL METHODS IN ECONOMICS (EAE60E)

Department of Systems Engineering
Faculty of Economics and Management

Lecturer: doc. Ing. Ludmila Dömeová, CSc.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Subject illustrates the basic methods and techniques of mathematical modelling for solving of complex problems in the practice. Using of linear programming and examples the subject illustrates: a) construction of a mathematical models of a practical problems, b) solutions of models by simplex method, or by similar derivate algorithms, c) analysis of the model and analysis of the results for their practical use. Basics knowledge of linear programming and relevant mathematical models makes possible the graduates to continue the study of other more complex models and use the model approach to solve complex problems in their future businesses.

Lectures:

1. Operations research. System approach to solving complex problems. Decision making support. Classification of the most implemented mathematical models
2. Linear programming. Graphical linear programming.
3. Linear programming. Foundations of simplex method. Problems with symmetric systems of restrictions. Pivot method.
4. Simplex method. Solution of non-symmetric models. Penalty costs. Artificial initial solution.
5. Search path followed by the simplex method. Shadow prices, opportunity costs.
6. Simplex method. Ranging and sensitivity.
7. Computer program outputs. Solutions in spreadsheet. Lindo/Lingo SW packages. LinKOSA SW.
8. Duality in linear programming. Symmetric and non-symmetric dual problems. Duality theorem.
9. Transportation problem. Shipping of n units to m destinations. MODI method.
10. Two dimensional transportation: shipping of goods through intermediate facilities.
11. Assignment models. Hungarian method.
12. Computer program outputs for linear programming problems.

Seminars:

1. Systems of linear equations and inequalities. Basic, non-basic and general solutions. Jordan method.
2. Graphical linear programming.
3. Linear programming. Symmetric models, pivot method.
4. Linear programming. Non-symmetric models, solutions wit the "big M costs".
5. Linear models - solution analysis.
6. Ranging and sensitivity analysis of linear models.
7. Solution of linear model in the spreadsheet. Application of LinKOSA SW.
8. Duality in lunear programming. Dual algorithmus for soulution of special LP problems.
9. Simple transportaton linear model. Approximative solutions.
10. MODI method in transportation problem.
11. Transportation model with the intermediate storages.
12. Assignment problems - examples of minimizing and maximizing probles.

Study literature:

1. Chase R.B., Aquilano N.J.: Production and Operations Management, IRWIN McGraw-Hill USA 1995
2. Bonini C.P., Hausman W.H., Bierman H.: Quantitative Analysis for Management, IRWIN McGraw USA 1997
3. DeLurgio S.A.: Forecasting Principles and Applications, IRWIN McGRAW-HILL BOOK COMPANY, USA 1986

MATHEMATICAL METHODS FOR STATISTICS (ESE51E)

Department of Statistics
Faculty of Economics and Management

Lecturer: Ing. Vladimír Štěpán, Ph. D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36
Prerequisites: Simple mathematical knowledge

Objective and general description:

This course deals with basic methods of linear algebra. All of them should be useful for other courses of statistics, informatics, economics, operating research etc. and in standard practice.

Lectures:

1. Linear algebra. Vector spaces.
2. Subspaces. Linearly independent vectors.
3. Set of generators, basis and dimension of a vector space.
4. Arithmetic vector spaces. Scalar multiplication. Orthogonality.
5. Introduction to matrix algebra. Basic notions and operations.
6. Introduction to systems of linear equations. Homogeneous linear systems.
7. Nonhomogeneous systems of linear equations. Gaussian elimination.
8. Matrix multiplication, inverse matrix.
9. Selected methods of solving of systems of linear equations.
10. Determinants. Evaluation and properties.
11. Theorem on expansion of a determinant in cofactors.
12. Solving systems of linear equations by use of determinants.

Seminars:

1. Introduction. Some basic notions of algebra. Vector spaces - examples and verification.
2. Linearly independent vectors. Basis and the dimension of a vector space.
3. Arithmetical vector spaces. Scalar product. Orthogonal vectors.
4. Rules of matrix arithmetics. Systems of homogeneous linear equations.
5. Solving of systems of nonhomogeneous linear equations. Gaussian elimination. Matrix multiplication, inverse matrix. Applications of the inverse matrix, solving of systems of linear equations.
6. Determinants. Evaluation and properties.

Study literature:

1. Anton, H.: Elementary Linear Algebra, Wiley, 1991
2. Johnson, R.A., Wichern, D.W.: Applied Multivariate Statistical Analysis, Prentice Hall, Upper Saddle River, 1998
3. Sachs, L.: Applied Statistics, Springer-Verlag, New York, 1984

AGRICULTURAL SYSTEMS II (ALE02E)

Department of Genetics and Breeding
Faculty of Agrobiology, Food and Natural Resources

Lecturer: Ing. Helena Chaloupková, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:
The aim of this subject is to give fundamental knowledge on animal keeping, ethology, welfare and animal production. Main part is based on a general overview followed by specialized section. Lectures contain following themes: general zootechny, introduction to ethology,anatomy and physiology. General part is followed by lectures on individual species and breeding of main farm animals.

Lectures:
1. Contribution of domestic animals, domestication
2. Zootechnical taxonomy, gene resources,pedigree and herdbook, body conformation, branding of animals..
3. Ecological aspects of animal breeding, ecological livestock farming..
4. Introduction to animal ethology.
5. Applied ethology of horses.
6. Applied ethology of cattle.
7. Applied ethology of pigs.
8. Animal welfare.
9. Physiology of animals - stress.
10. Physiology of animals - reproduction and lactation.
11. Dairy cattle and milk production.
12. Pig and poultry production.
13. Aquaculture - fishery management.
14. Zoorehabilitation.

Seminars:
1. Breeds of domestic animals, domestication changes, type traits in livestock and pets, body condition.
2. Animal ethology methods and animal welfare assessment
3. Excursion - Practical aspects of ethology in ZOO Prague
4. Excursion - Practical aspects of horse keeping
5. Practical aspects of cattle keeping and pig breeding - school stable
6. Applied ethology of cattle.
7. Applied ethology of pigs
8. Zoorehabilitation
9. Practical fishery

10.Presentation of students projects

Study literature:

1. Pond, W.G., Bell, A.W.: Encyklopedia of Animal Science. M.Dekker, New York,2005, ISBN 0-8247-5496-4.
2. Pond, K., Pond, W.G. : Intordoction to Animal Science. J.Wiley and Sons. Inc. New York, ISBN 0417-17094-1.
3. Kilgour R., Dalton C., 1984: Livestock Behaviour-a practical guide. Granada Publ. ISBN 0-246-11906-3.
4. Jensen, P.: The Ethology of Domestic Animals-An Introductory Text.CABI Publishing, 2002, ISBN 0 85199- 602-7.
5. Webster, J.: Animal Welfare-a cool eye towards eden. Blackwell Science Ltd. London, 1994,ISBN 0-632-03928 -0.
6. Kolektiv, 2002 Concepts in Animal Welfare, WSPA,London, University Of Bristol.

SCIENCE, PHILOSOPHY AND SOCIETY (EHEA7E)

Department of Humanities
Faculty of Economics and Management

Lecturer: Daniel Rosenhaft Swain, Ph.D., MA
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The students meet all the time with the scientific knowledge but they frequently do not know methods how to reach them. This course gives the students an overview of the basic concepts and methods in the field of knowledge, especially of scientific knowledge and helps them to understand how this concepts and methods are used in all the other special courses of university education.
The course has the form of lectures, and workshops with readings and explanations of the philosophical texts and discussions.

The course gives no overview of the history of philosophical or scientific ideas. Instead, it deals with selected philosophical problems, especially epistemological problems. Their expositions, explanations and discussions on possibilities of their solutions may help the students to understand traditional and modern problems of epistemology and theory of science.

Lectures:

1. Introduction and Overview of the Course
2. Knowledge and Skepticism
3. Plato and Aristotle on Wisdom in Politics
4. Fact and Value
5. Induction and Deduction
6. Natural and Social Science
7. Realism in Economics
8. Objectivity in Economics
9. Morality and the Market - Core concepts
10. Commodification
11. Exploitation

Seminars:

1. "The unexamined life is not worth living"
2. How do we know what we know?
3. Should we be ruled by experts?
4. Can we derive an ought from an is?
5. Can we trust inductive knowledge?

6. What is the difference between natural and social sciences?
7. Should economic theories aim to be realistic?
8. Is economics an objective science?
9. How do we decide what is good and bad?
10. What should we be allowed to buy and sell?
11. When is it acceptable to use someone to make a profit?
12. Essay advice and preparation

Study literature:

1. Brennan, J., and Jaworski, P., Markets Without Limits, Routledge, 2015.
2. Hausman, D., ed., The Philosophy of Economics: An Anthology, Cambridge University Press, 2012.
3. Irwin, W., ed., Philosophy and the Matrix, Open Court publishing, 2002.
4. Okasha, S., A Very Short Introduction to the Philosophy of Science, Oxford University Press, 2002.
5. Plato, The Apology
6. Sandel, M., What Money Can't Buy: The Moral Limits of Markets, Farrar, Straus and Giroux, 2013.
7. Satz, D., Why Some Things Should Not Be for Sale, Oxford University Press, 2010.
8. Sedláček, T., The Economics of Good and Evil, Oxford University Press, 2013.

INFORMATION TECHNOLOGIES (ETE4AE)

Department of Information Technologies
Faculty of Economics and Management

Lecturer: Ing. Miloš Ulman, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36
Prerequisites: Informatics

Objective and general description:

The aim of the course is to explain important principles of current information and communication technologies with focus on Internet technologies and to project anticipated trends in the field. Students will acquire broader overview and expertise in particular topics that will build theoretical foundations for their use in practice. After passing the course, learners will be able to effectively work with technologies that are subject of the course and moreover they will be able to select proper tool for specific case, system, sector, field etc. Students will elaborate a set of particular tasks. Further advancing professional topics on ICT are subject matter of the course Information systems.

Lectures:

1. Database systems
2. Data management
3. Information and communication technologies and IS
4. Projecting of IS
5. Information systems and application on the WWW platform
6. Graphics and multimedia
7. Search engines and searching of information
8. Security of IS and ICT
9. Mobile ICT
10. Communication and ICT
11. E-business
12. Social network and media

Seminars:

1. Databases
2. Databases
3. Databases
4. HTML
5. HTML
6. Control of study tasks, pass eligible

Study literature:

1. O´LEARY, Timothy J.; O´LEARY Linda I. Computing Essentials 2013. Making IT work for you. New York, NY: McGraw Hill. 2013. 533 p. ISBN 978-0-07-131753-5.
2. Study materials for Information Technologies course at http//moodle.czu.cz
3. Wikipedia. [on-line]. Dostupné z WWW: http://www.wikipedia.org
4. WATSON, R. T. Data Management Databases & Organizations. San Francisco, John Wiley & Sons, Inc., 2006. ISBN-13 9780471715368.
5. DATE, C. Database in Depth. Sebastopol, O'Reilly Media, 2005. ISBN 978-0-596-10012-4.
6. TURBAN, Efraim et al. Electronic commerce 2012: a managerial and social networks perspective. Pearson, 2011. 792 s. ISBN 978-027-3761-341.
7. Using Information Technology. Information center. [on-line]. Dostupné z WWW: http://www.mhhe.com/uit10e
8. Computing Essentials 2013. Companion Web site. [on-line]. Dostupné z WWW:http://www.computing2013.com/
9. CIO.com. CXO Media Inc. [on-line]. URL http//www.cio.com

ENGLISH FOR BUSINESS PURPOSES (ELX69E)

Department of Languages
Faculty of Economics and Management

Lecturer: BA Edmond Grady
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course is interactive and there are no lectures. Seminars are based on specialised textbooks and articles from current English language business periodicals which are used for further development of language skills including: expansion of business vocabulary (40 words per week, with practical examples), Review of grammar, Discussion, Conversation, Debate, Formal writing format. All correction of written and oral presentations is done on a one-to-one basis with general explanations of common errors. In Business English the students are familiarized with business settings in which they will be expected to use English. They will be taught the basic skills to enable them to operate effectively in these situations.

Lectures:

1. Comprehension and interpretation of written reports and other business documents
2. Discussion and verbal presentation of findings
3. The modification of business information for use in specific situations
4. Analysis of graphically and numerically displayed information
5. Summarizing and precise writing
6. Writing minutes of meeting
7. Composition of letters, memoranda, reports, etc.
8. Formal writing format
9. Creative writing
10. General explanation of common errors etc
11. Further development of language skills

Seminars:

1. The Administrative Function
2. Human Resource Management
3. Finance and Accounting
4. The Production Function
5. Decision Making
6. Marketing and the sales Function
7. Debate
8. International marketing
9. Formal writing format
10. Transport and distribution
11. Creative writing

12. Business meeetings
13. General explanation of common errors etc
14. Personnel management
15. Further development of language skills
16. Government and business
17. Modifying business informations.

Study literature:

1. CHILVER, J., English for business A functional approach. DP Publications, London, 1992. 304 p. ISBN 1-873981-10-4.
2. MACKENZIE, I. English for business A course for business studies and Economics students. Cambridge university press, Cambridge, 2010. 191 p. ISBN 978-0-521-74341-9.

SPORT (RTX16Z), (RTX17Z)

Department of Physical Education

Lecturer: PaedDr. Dušan Vavrla
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0
Assessment:
Marking scale:
Contact hours: 28

Objective and general description:

Compulsory physical education is taught as a non-credit course for first and second year at Faculty of Business and Economics. The scope of compulsory education is always once a week activity chosen by the students. At the beginning of the study, students have to take a performance test of swimming, and all non-swimmers and weak swimmers pass within hours of PE course of swimming. In addition to swimming, swimmers and advanced beginners can chose from the traditional (football, basketball, volleyball, hockey, TV fitness, strengthening, aerobic, in various forms). Exempt from physical education, students on medical grounds and top athletes at the Czech national team or the highest Czech competitions in various sports. Students with physical limitations are included to the teaching of physical education with an individual program, reflecting their state of health (health swimming or exercise)

Sports

1. indoor swimming pool 25 m
2. large gym for ball games
3. small gym for ball games and aerobics
4. fitness
5. grass football pitch
6. football pitch on the small football
7. clay volleyball courts
8. beach volleyball court
9. clay tennis court
10. 3 tennis courts with artificial turf
11. tennis hall
12. multipurpose field with artificial surface (basketball, volleyball)
13. sauna, whirlpool, solarium
14. ski
15. boat rental

Bachelor in Economics and Management

Programme syllabi – Second year

MICROECONOMICS (ENE45E)

Department of Economics
Faculty of Economics and Management

Lecturer: Ing. Petr Procházka, MSc, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36
Prerequisites: Mathematics

Objective and general description:

- to familiarize the student with the basic concepts and methods of microeconomics - the study of how consumers and producers make their decisions and interact in markets, under conditions of perfect and imperfect competition.
- to enable the student to apply these concepts and methods to policy issues. Policy issues such as whether, when and how markets may fail and whether government intervention may be needed to correct those failures.
- to lay the groundwork for future study: in the next term, for the study of macroeconomic issues such as unemployment, inflation and long-run economic growth; and more generally for such courses as managerial accounting and management decision-making, as well as economics courses in finance, labor, international economics and managerial economics, which require mastery of basic microeconomic concepts.

Lectures:

1. Introduction. Goal of the subjects. Fundamentals of Economic thinking.
2. Supply, Demand and Market Equilibrium.
3. Consumer Choice and the Demand Curve.
4. Indifference Curves and Budget Constraints, Consumers' Optimum.
5. Theory of the Firm.
6. Production and Cost functions.
7. Profit maximization.
8. Market Structure – Perfect Competition, Imperfect Competition.
9. Factors of production. Supply and Demand of Production Factors
10. Labor Market, Capital Market, Land Market.
11. General Equilibrium and Efficiency
12. Market Failures.

Seminars:

1. Supply and Demand – Search for the market equilibrium. Derivation of Supply and Demand Curve.
2. Consumer Choice – Cardinalistic Theory of Utility. Marginal utility. Consumer Price.
3. Production Function, Marginal and Average Product.
4. Cost Function. Marginal and Average Costs of Production.

5. Profit Maximization and Supply in Perfect Competition and Imperfect Competition.
6. Perfect and Imperfect Competition in Factor Markets.

Study literature:

1. Samuelson P. A. & Nordhaus W. D.: ECONOMIC. 18th edition. McGraw Hill. New York, 2005
2. Frank R. H.: MICROECONOMICS AND BEHAVIOR. McGraw Hill. New York. 1991
3. Pindick R. S. & Rubinfeld D. L.: MICROECONOMICS. Prentice Hall International. London. 2001
4. Mankiw N. G. PRINCIPLES OF MICROECONOMICS. Dryden Press, Fort Worth, Texas, USA, 1998

STATISTICS I (ESE49E)

Department of Statistics

Faculty of Economics and Management

Lecturer: Ing. Tomáš Hlavsa Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course is aimed at familiarizing the students with the elementary statistical methods. The instruction is consistently performed using applied approach. Selection of relevant methods for the situation assessed is underlined, as well as results interpretation in the end. The course is focused mainly on univariate analysis including statistical inference. The methods included are illustrated by means of meticulously solved examples of real data analyses.

Lectures:

1. Structure of the course. Elementary statistical concepts and symbols..
2. Basic statistical measures, statistical grouping.
3. Elements of probability. A random variable, its measures. Distributions of the discrete and continuous variables..
4. Introduction to statistical estimation theory
5. Point and interval estimates.
6. Introduction to hypothesis testing.
7. One-sample tests.
8. Testing of a difference between two means and two variances.
9. Testing of a difference between two proportions. Paired t-test
10. Introduction to analysis of variance. Principles, application of results. One-way ANOVA. Multiple comparison ANOVA methods..
11. Complex ANOVA models.
12. Non-parametric tests

Seminars:

1. Basic statistical measures, statistical grouping.
2. Elements of probability. A random variable, its measures. Distributions of the discrete and continuous variables..
3. Introduction to statistical estimation theory. Point and interval estimates..
4. Introduction to hypothesis testing. One-sample tests. Two-sample tests
5. Introduction to analysis of variance. Principles, application of results. One-way ANOVA. Multiple comparison ANOVA methods.
6. Non-parametric tests.

Study literature:

Required reading

1. TAYLOR, S. Business Statistics for Non-mathematicians, Palgrave MacMillan, 2007.368 p.ISBN 978-0-230-50646-6.
2. LMS Moodle [online]. Available from http://www.moodle.czu.cz.

Recommended reading

1. FIELD, A. Discovering Statistics Using SPSS. SAGE Publications, London, 2005. 779 s. ISBN 978-0-7619-4452-4.
2. SULLIVAN, M. Fundamentals of Statistics, Pearson Prentice Hall, 2008.606 p. ISBN 978-0-13-156987-2.
3. TRIOLA, M., F. Elementary Statistics using Excel. Pearson Addison Wesley, Boston, USA, 2007.915 s. ISBN 978-0-321-36513-5.

ECONOMICS OF AGRARIAN SECTOR (EEER2E)

Department of Economics
Faculty of Economics and Management

Lecturer: Ing. Jiří Mach Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course introduces students to basic economic characteristics of agrarian sector and using examples of agri-commodities highlights the market mechanism in the production and processing of agricultural commodities. The course focuses on methods of evaluation of various measures in agriculture (CAP, trade barriers, the impact of WTO) and on a deeper analysis of the factors affecting the economics of production of final products in vertical integration. It also emphasizes the market principles and traits of agricultural and food commodities. Students will become familiar with the specifics of the global, European and national agricultural markets

Lectures:

1. Definition and object of agrarian sector and agricultural economics. The role of agriculture in the national economy, specifics of agriculture
2. Trade agreements - GATT (WTO) – General system of preferences, EBA, CPA.t
3. European agricultural market, common market organisation and its implications in the Czech agriculture, the political-legal environment.
4. Liberalization vs. protectionism of agri-food markets.
5. Vertical and horizontal integration in agri-food chains
6. Economics of cereal production.
7. Economics of oil-plants vertical; biofuels production and their impact to world prices of food
8. Economics of sugar and starch production)
9. Other world traded crop plants and their economics.
10. Economics of milk production, processing and trade
11. Beef , pork and poultry production, trade and economics.
12. Mad cows, GMOs and the Biosafety protocol.

Seminars:

1. Current demand and supply conditions in world agriculture. Computing income elasticity of demand. Income inequality. Case study 1.
2. Cost levels of key commodities and comparison round the world. Gross margin and Break-even point. Case study 2.
3. Analysis of agricultural commodity prices - main methods.
4. Major tendencies in cereal and oilseed production with applications to the food processing and wholesaling industries

5. Major tendencies in livestock production with applications to the food processing and wholesaling industries.
6. Effeciency of investments into agrarian sector. Semestral project presentation and defenceB

Study literature:

Required reading:

1. Colander, D.C.: Microeconomics.Irwin International, 1995
2. Kay, R. D., Edwards, W. M.: Farm Management. McGraw-Hill, 1994.
3. Norton, G. W., Alwang, J.: Introduction to Economics of Agricultural Development. McGraw-Hill, 1993.
4. Brouwer, F., Straaten v. d. J.: Nature and Agriculture in the EU: New Perspectives on Policies that Shape the European Countryside. Edward Elgar Publishing, Cheltenham – Northampto
5. Tisdell, C.: Economics and Ecology in Agriculture and Marine Production. Edward Elgar Publishing, Cheltenham – Northampton, 2003.
6. Perman, R.,Ma,Y.:Natural resources and environment economics.Longman, London, 1996
7. Smutka, L. et al.: World Agricultural Production, Consumption and Trade Development – Selected Problems. PowerPrint, Prague, 2012.

EMPIRICAL RESEARCH IN ECONOMICS (EEEB5E)

Department of Economics
Faculty of Economics and Management

Lecturer: Ing. Lenka Rumánková, Ph.D.
Teaching period: Autumn semester
Type subject: bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36
Prerequisites: Micro- and Macro- economics

Objective and general description:

The course introduces research procedure - its main steps, tools and methods. Both lectures and seminars are focused on research methods which may be employed especially within the quantitative research. The main problems are introduced during the lectures. Main principles and methods are explained in depth and employed by solving specific problems during the seminars. An economic interpretation of the results is emphasised. Moreover, students process course projects. They employ selected quantitative method to analyse selected economic problem and explain the results. The students work in groups of two. The seminars are completed by presentation of the projects. To pass the course successfully it is necessary actively participated in seminars, to submit and present course project and to pass both written and oral part of exam.

Lectures:

1. Research process, basic research skills
2. Basic research methods – analysis, synthesis, comparison
3. Research - qualitative and quantitative
4. Data and databases in economic research - time series, cross-sectional data, panel data
5. Process of modelling – main steps, assumptions and rules
6. Writing of research project – main steps, assumptions and rules
7. Statistical software in quantitative research
8. Time series analysis – index numbers, time series decomposition
9. Regression and correlation analysis
10. Univariate time series analysis
11. Multivariate time series analysis
12. Prognosis, prognostic methods, forecasting

Seminars:

1. Writing of research project – introduction; mathematical methods
1. Specification of research task for students (teams); introduction and presentation of statistical software
2. Regression analysis – linear simple and multiple
3. Regression analysis – non-linear simple and multiple
4. Time series analysis – decomposition

5. Univariate time series analysis
6. Multivariate time series analysis
7. Forecasting
8. Processing of course projects
9. Processing of course projects
10. Projects presentation
11. Projects presentation

Study literature:

1. Bryman, A. – Bell., E. Business Research Methods. Oxford University Press, USA 2003. ISBN 019-925938-0.
2. Chatfield, Ch. The Analysis of Time Series – an Introduction. Chapman&Hall/CRC, USA 2004. ISBN 1-58488-317-0.
3. Koop, G. Analysis of Economic Data. John Wiley & Sons, Ltd., UK 2005. ISBN 0-470-02468-2.
4. Lind, D.A. – Marchal, W.G. – Wathen, S.A. Statistical Techniques in Business & Economics. McGraw-Hill/Irwin, USA 2005. ISBN 0-07-286824-4.
5. Lucey, T. Quantitative Techniques. DP Publications, UK 1996. ISBN 1-85805188-6.

Core literature:

1. Gujarati, D.N. Essentials of Econometrics. McGraw-Hill/Irwin, USA 1992. ISBN 0-07-025194-0.
2. Hoffmann, L.D. – Bradley, G.L. Applied Calculus for Business, Economics, and the Social and Life Sciences. McGraw-Hill, USA 2007. ISBN 978-0-07-110672-6.
3. Kočenda, E. – Černý, A. *Elements of Time Series Econometrics: An Applied Approach*. Karolinum Press, Prague 2007. ISBN 978-80-246-1370-3.
4. Renshaw, G. Math for Economics. Oxford University Press, USA 2005. ISBN 0-19-926746-4.
5. Samuelson, P.A. – Nordhaus, W.D. Economics. McGraw-Hill, USA 1992. ISBN 0-07-054879-X.

INTRODUCTORY SOCIAL RESEARCH METHODS (EHEA6E)

Department of Humanities
Faculty of Economics and Management

Lecturer: doc. Mgr. Ing. Lukáš Zagata, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

This course intends to introduce students to the major questions, issues and methods of qualitative research; present theoretical underpinnings of the qualitative research; enable students to understand what kinds of qualitative methods are useful for discovering certain kinds of information; enable students to read, write, reflect upon, and discuss key issues in field research methods; practice observation and interview skills; help student to practice a tentative field-based research project using qualitative research methods

Lectures:

1. Science and scientific interpretation of the human social world.
2. Theoretical background of the qualitative research
3. Qualitative measurement and sampling.
4. Interpretation and validity of the qualitative research findings.
5. Documents study.
6. Observation.
7. Interviewing and focus groups.
8. Qualitative analysis.
9. Case study methods.
10. Case study methods
11. Q methodology.
12. Research ethics.
13. Formalization of research findings (qualitative report).

Practicals:

1. Social phenomena as the research subject.
2. Rashomon effect.
3. Data collection: activity.
4. Qualitative data analysis.
5. Qualitative analysis and interpretation.

Study literature:

1. BERG, L. Bruce. Qualitative Research Methods for the Social Sciences (8th Edition). New York: Pearson, 2011. 448 s. ISBN 0205824617
2. NEUMAN, W. Lawrence. Social Research Methods: Qualitative and Quantitative Approaches (5th Edition). New York: Pearson, 2002. 640 s. ISBN 0205615961.

FOREIGN LANGUAGE - FRENCH (ELE34E_1), (ELE34E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: Mgr. PhDr. Milena Dvořáková, MBA
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The course is aimed at complete beginners and is taught in English and on the basis of the English linguistics. The students will learn everyday vocabulary and relevant grammatical/syntactical structures. At the same time, they will encounter the basics of economic terminology and lexical means relative to the university/faculty environment. The course integrates all four skills - listening, reading, writing and speaking. However, it is mainly focused on the communicative aspects of a foreign language.

A two-term subject is concluded at the end of both terms by a final test and in the summer term by an examination (written + oral).

Seminars – autumn semester:

1. Introduction, phonetics, pronunciation, internationalisms.
2. Unité 1 - At the reception I.
3. Unité 1 - At the reception II.
4. Unité 1 - Ways of greeting.
5. Unité 1 - Greetings and introduction
6. Unité 1 - A quick look at the European Union
7. Unité 1 - Test your self
8. Unité 2 - Who are they?
9. Unité 2 - What are they?
10. Unité 2 - A break
11. Unité 2 - Making judgements
12. Unité 2 - European institutions and stereotypes

Seminars – spring semester:

1. Revision, unité 3 - Hello - on the phone.
2. Unité 3 - Hold on - personal pronouns te/vous, expressing cause/result: pourquoi - parce que.
3. Unité 3 - Message - time prepositions and expressions, invitations,-DRE, -IR verbs.
4. Unité 3 - Social expressions - emails, invitations; pouvoir, vouloir, devoir verbs (CAN, WANT, HAVE TO).
5. Unité 4 - Departures, requesting, expressing wishes, booking/purchasing tickets.
6. Unité 4 - At the train station, at the airport, in the city; prepositions of place, asking for directions/giving directions.

7. Unité 4 - Passenger information, near future, expressing future and talking about future events.
8. Your key - hotel and hotel description.
9. Unité 5 - Bookings, check-in, past participle (participe passé), past simple (passé composé).
10. Unité 5 - Office lease - renting a flat, office; expressing opinions.
11. Unité 5 - Writing - simple formal letters and emails, COD (direct object).
12. Revision (review of grammar and vocabulary), revision test.

Study literature:

1. TAUZIN, B.; DUBOIS, A.-L. Objectif Express 1. Paris: Hachette Livre, 2006. 192 p. ISBN 978-2-01-155427-7.
2. KOZMOVÁ, J.; BROULAND, P. Francais commercial. Praha: Computer Press, 2006. 288 p. ISBN 80-251-1099-0.
3. LEGRAIN, M.; GARNIER, Y. Le Petit Larousse Illustré. Paris: Larousse, 2002. 1786 p. ISBN 2-03-530202-1.

FOREIGN LANGUAGE - GERMAN (ELE35E_1), (ELE35E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: Mgr. Michaela Peroutková, Ph.D.
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The course is aimed at complete beginners and is taught in English and on the basis of the English linguistics. The students will learn everyday vocabulary and relevant grammatical/syntactical structures. At the same time, they will encounter the basics of economic terminology and lexical means relative to the university/faculty environment. The course integrates all four skills - listening, reading, writing and speaking. However, it is mainly focused on the communicative aspects of a foreign language.

The classes are practical in terms of learning a foreign language. The classes are focused on developing and integrating all language skills (speaking, reading, writing and listening). Students work with various short foreign texts (e.g. recommended textbook, workbook, extra topic-related materials and presentations) according to the tasks assigned by the teacher. They also listen to foreign recordings, watch videos while trying to demonstrate the understanding of foreign language inputs. They also deliver short interactive exercises/presentations assigned by the teacher. All supplementary materials, including links to authentic materials, dictionaries and preliminary tests are available via LMS Moodle.

The course takes two semesters and is concluded at the end of both semesters by a final test and in the spring semester by an examination (written + oral).

Seminars – autumn semester:

1. Introduction.
2. International words.
3. In a restaurant.
4. In the language course.
5. Countries and Languages.
6. People - Contacts.
7. Living conditions.
8. Appointments.
9. Important information.
10. Getting around in the city.
11. Transportation.
12. Test.

Seminars – spring semester:

1. Every day life, free time.
2. Professions.
3. Excursion through Berlin.
4. Travelling.
5. Vacation and holiday.
6. Food and drinks.
7. Ordering food in a restaurant.
8. Shopping.
9. Clothing and weather.
10. Body and sport.
11. Seeing the doctor.
12. Test.

Study literature:

1. FUNK, Hermann; KUHN, Christine; DEMME, Silke. Studio d A1 : Deutsch als Fremdsprache. Cornelsen Verlag, 2011. 256s. ISBN 978-3-464-20707-9.
2. FUNK, Hermann; KUHN, Christine; DEMME, Silke. Studio d A1 : Deutsch als Fremdsprache. Sprachtraining mit eingelegten Lösungen. Cornelsen Verlag, 2011. 96s. ISBN 978-3-464-20708-6.
3. Langenscheidt Taschenwörterbuch Englisch - Buch mit Online-Anbindung, Berlin und München : Langenscheidt-Redaktion, 2013. 1632s. ISBN: 978-3-468-11138-9.
4. REIMANN, Monika. Grundstufen - Grammatik für Deutsch als Fremdsprache. Imaning : Max Hueber Verlag, 2007. 186s. ISBN 3-19-011575-3.

FOREIGN LANGUAGE - SPANISH (ELE36E_1), (ELE36E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: Mgr. Alena Drebitková Malá, Ph.D.
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The subject is taught on the basis of English. The language level is intended for the beginners with no language skills. The main goal of this level is to teach students to achieve simple communicative abilities in every-day situations, simple oral and written expressive skills, the ability to read and understand simple texts and finally to understand the spoken language. Through communicative exercises students gradually learn basic grammar and vocabulary.

Classes are practical in terms of learning the foreign language. The classes are focused on developing and integrating all language skills. Students work with foreign texts (e.g. in recommended textbooks) according to the tasks assigned by the teacher. They also listen to foreign texts and have to demonstrate the understanding of foreign language. They deliver presentations assigned by the teacher. The used method is communicative, based mainly on interaction.

The course takes two semesters and is concluded at the end of both semesters by a final test and in the spring semester by an examination (written + oral). Students are not allowed to enrol into the summer term unless they are credited for the winter term.

Seminars – autumn semester:

1. Greetings.
2. What is your name?
3. Natinalities and origin.
4. Phone calls.
5. My flat description.
6. How do I get to …?
7. Renting a flat.
8. What is the time?
9. I like and I do not like.
10. Eating in a restaurant.
11. Asking somebody to do something.
12. Credit test.

Seminars – spring semester:

1. Repaso de las unidades 1-4
2. Cómo voy a ..., la ciudad
3. Dónde está ..., las tiendas
4. Qué hora es?
5. Los números hasta 1000
6. Los hábitos, con qué frecuencia
7. El tiempo libre, el verbo gustar, mis aficiones
8. La comida, en un restaurante
9. Hacer la compra, recetas
10. La ropa, en una tienda de ropa
11. Los materiales, el diseňo y la moda
12. Repaso final de las unidades 5-8

Study literature:

1. CASTRO, Francisca; MARÍN, Fernando; MORALES, Reyes. Nuevo ven 1: Libro del estudiante. Madrid: Edelsa, 2005. 192 s. ISBN 84-7711-832-9.
2. CASTRO, Francisca; MARÍN, Fernando; MORALES, Reyes. Nuevo ven 1: Libro de ejercicios. Madrid: Edelsa, 2005. 64 s. ISBN 84-7711-833-7.
3. FENCLOVÁ, Jitka; FOUSKOVÁ, Kateřina. Nuevo ven 1: Studijní příručka. Plzeň: Fraus 2005. 88 s. ISBN 80-7238-481-3.
4. MARÍN, Fernando; MORALES, Reyes. VENTE1 Libro del estudiante. Madrid, Edelsa 2014. 184 s.ISBN 978-84-7711-796-4

FOREIGN LANGUAGE - CZECH (ELE37E_1), (ELE37E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: PhDr. Martina Jarkovská, Ph.D.
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The subject is created for students with zero knowledge of Czech but it takes into account that the students will live in the Czech environment and every day they will try to communicate in Czech language. The students will be introduced to the Czech language system and they will learn to express in Czech the information about themselves and their environment. They will be able to communicate in basic situations at university premises, in a shop, in a restaurant, in the town. They will learn vocabulary concerning the taught topics, forms of verbs in the present and past tense, forms of nouns and adjectives in appropriate cases and future verb forms. They will also get to know the Czech culture. The subject is A1 level according to the European Framework for Languages.

Seminars – autumn semester:

1. Lesson 1: What is it? Who is it? What is your name? Where are you from?
2. Lesson 1: What do you study? Verb conjugation. Numbers 0 - 10. Telephone conversations. Email.
3. Lesson 2: Oreintation. Can you tell me the way, please? Modal verbs.
4. Lesson 2: What is your address? Verb conjugation. Numbers 11 - 100.
5. Lesson 3: In the restaurant. Eating and drinking list.
6. Lesson 3: I like. Singular accusative. Hobbies.
7. Lesson 4: My family. Possessive pronouns. Adjectives.
8. Lesson 4: Describing family members. Verb conjugation. Singular and plural accusative.
9. Lesson 5: When do we meet? At what time? What is the date today?
10. Lesson 5: Modal verbs. Do you want to go to/for? I like doing.
11. Lesson 6: Famous people. Who was it? What did you do yesterday? Past tense.
12. Lesson 6: Where were you? Singular locative.

Seminars – spring semester:

1. Lesson 7: Where were you? Static verbs and prepositions "v/ve, na, u (in, on, at). Singular and plural locative.
2. Lesson 7: Where were you on holidays? Weather forecast.
3. Lesson 8: Planning the time. Where are we going? Expressing future. Prepositions "do, na, k" (to, for).

4. Lesson 8: Where? x Where to? Singular genitive. Writing email.
5. Lesson 9: House and flat. Renting and bying house/flat. Prepositions "pro, na, za"(for).
6. Lesson 9: Shops and claims. Singular and plural nominative and accusative.
7. Lesson 10: Travelling. "Long" and "short" verbs of movement.
8. Lesson 10: When will you come for a visit? Verbs with prefixes: "přijít, odejít" (come, leave).
9. Lesson 11: Human body. At the doctor's. Object constructions "Bolí mě..., Je mi..." (I have...ache).
10. Lesson 11: Can you help me? Short personal pronouns in accusative and dative.
11. Lesson 12: Greetings and wishes. Singular dative. Declination of "kdo, co" (who, what) (nominative, dative, accusative, ůocative).
12. Lesson 12: Telephone conversation. At the visit.

Study literature:

1. HOLÁ, Lída; BOŘILOVÁ, Pavla. Čeština Expres 1 (A1/1). 1. vyd. Praha: Akropolis, 2010. 96 s. ISBN 978-80-87310-13-7.
2. HOLÁ, Lída; BOŘILOVÁ, Pavla. Čeština Expres 2 (A1/2). 1. vyd. Praha: Akropolis, 2011. 96 s. ISBN 978-80-87481-26-4.
3. REMEDIOSOVÁ, Helena; ČECHOVÁ, Elga; PUTZ, Harry. Do you want to speak Czech? 1. 4. vyd. Liberec: Finidr, 2002. 414 s. ISBN 80-902165-8-7.
4. CONFORTIOVÁ, Helena; CVEJNOVÁ, Jitka; ČADSKÁ, Milada. Učebnice češtiny pro výuku v zahraničí. 1. část. 1. vyd. Praha: Karolinum, 2002. 252 s. ISBN 80-246-0530-9.
5. CONFORTIOVÁ, Helena; CVEJNOVÁ, Jitka; ČADSKÁ, Milada. Učebnice češtiny pro výuku v zahraničí. 2. část. 1. vyd. Praha: Karolinum, 2002. 499 s. ISBN 80-246-0560-0.

MACROECONOMICS (ENE46E)

Department of Economics
Faculty of Economics and Management

Lecturer: prof. doc. Ing. Mansoor Maitah, Ph.D. et Ph.D
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36
Prerequisites: Mathematics

Objective and general description:

The course will introduce student to basic concepts and methods of macroeconomics. After taking this course, student will be able to describe and analyze issues such as unemployment, inflation and economic growth in closed and open economy by applying tools of modern macroeconomics.

Lectures:

1. Introduction to the study of macroeconomics, a brief overview of the evolution of economic theory.
2. Efficiency indicators of national economy.
3. Equilibrium product in two-sector model (income – expenditures).
4. Equilibrium product in models with three and four-sector (income – expenditure
5. Money and money market, money supply, equilibrium in the money market.
6. Money market and deriving of LM curve and IS curve.
7. Market of goods and services and money market – IS-LM model in closed economy.
8. Aggregate demand and aggregate supply – AD-AS model.
9. Balance of payments and its determination. Exchange rate.
10. Inflation. Unemployment, Phillips curve.
11. Fiscal policy, monetary policy - direct and indirect tools of monetary policy.
12. Business cycle - types of cycles, their progress and recent developments.

Seminars:

1. Introduction to the course, requirements for credit, assignment of work, efficiency indicators of national economy (GDP).
2. Equilibrium product in two, three and four-sector economy (model income – expenditures).
3. Money market, IS-LM model, deriving of LM curve and IS curve.
4. Aggregate demand and aggregate supply, AD-AS model.
5. Inflation, unemployment, Phillips curve.
6. Evaluation, credits.

Study literature:

1. Samuelson P. A. & Nordhaus W. D.: ECONOMIC. 18th edition. McGraw Hill. New York, 2005
2. Mankiw N. G. PRINCIPLES OF MACROECONOMICS. Dryden Press, Fort Worth, Texas, USA, 1998.
3. MAITAH, Mansoor a kol. Essentials of International Trade. 1. vydání. Praha : ČZU PEF, 2009. 130 s. ISBN 978-80-213-1859-5.
4. MAITAH, Mansoor. Macroeconomics. 1. vydání. Praha : ČZU PEF, 2009. 180 s. ISBN 978-80-213-1904-2.
5. MAITAH, Mansoor. Macroeconomics: Issues and Exercises. 1. vydání. Praha : ČZU PEF, 2013. 209 s. ISBN 978-80-213-2051-2.

STATISTICS II (ESE50E)

Department of Statistics
Faculty of Economics and Management

Lecturer: Ing. Tomáš Hlavsa, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

This course is a continuation of the course Statistics I, it makes students familiar with the more advanced statistical methods. These are namely the regression and correlation analysis and time series analysis. The lectures are accompanied by demonstrations of the methods in practical applications. Selection of a relevant method and interpretation of its results are stressed. Statistical software is used in the practicals.

Lectures:

1. Introduction to regression and correlation. Computation algorithms and application of the results. Ordinary least squares. Simple linear regression.
2. Simple non-linear regression.
3. Multiple regression and correlation.
4. Inferential operations in the regression and correlation.
5. Time series analysis – introduction, elementary characteristics.
6. Time series analysis – trend analysis.
7. Time series analysis – periodical fluctuation; point and interval prediction.
8. Further time series analysis – exponential smoothing.
9. Introduction to categorical data analysis. Analysis of two way contingency tables, chances and risks.
10. Analysis of contingency tables, sign scheme.
11. Index numbers – homogenous data index analysis.
12. Index numbers – non-homogenous data index analysis.

Seminars:

1. Introduction to regression and correlation. Computation algorithms and application of the results. Ordinary least squares. Simple linear regression.
2. Simple non-linear regression. Multiple regressions. Inferential operations in the regression and correlation.
3. Time series analysis – elementary characteristics, trend analysis.s
4. Time series analysis – periodical fluctuation, point and interval prediction.
5. Analysis of contingency tables.
6. Index numbers.

Study literature:

1. TAYLOR, S. Business Statistics for Non-mathematicians, Palgrave MacMillan, 2007.368 p.ISBN 978-0-230-50646-6.
2. LMS Moodle [online]. Available from http://www.moodle.czu.cz.

TRADE AND COMMERCE (EUE50E)

Department of Trade and Finance
Faculty of Economics and Management

Lecturer: doc. Ing. Aleš Hes CSc.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course introduces students to the basic principles of business rules and internal trade in the subsystems. Prepares graduates for his own business, is familiar with both the internal business environment (business) and with the external environment (customers, business partners, competitors).

Lectures:

1. Definition of business, basic concepts, business as a system, business obligations
2. Business operations, contractual obligations, business agreements.
3. Infrastructure of internal trade, wholesale and retail.
4. Goods, classification, identification of goods.
5. Trade mark, industrial ownership, license.
6. Price in trade, construction of price, price movements.
7. Distribution, logistics bases, methods in logistic.
8. Electronic business and its role in business.
9. Principles of marketing, concept, strategy and forms of sale, ethics in business.
10. Promotion, public relations, advertising and media.
11. Advertising and media.
12. Consumer and his protection.

Seminars:

1. Introduction in subject. System conception of internal trade
2. Business subjects. Business operations.
3. Infrastructure of internal trade.
4. Goods case, Czech quality program, other symbols.
5. Logistics. Price construction in trade.
6. Marketing in business activities.

Study literature:

1. Hes, A., Regnerová, M., Šálková, D., Business doctrine CULS in Prague, 2007
2. Commercial Code, the Trade Licensing Act, the prices, Trademark Act, the Consumer Protection Act
3. Prague, L. Jindra, J., et al., Business, 2 Definition amended. ed, Management Press, 2002
4. Kotler, P., Trias de B., F., innovative marketing, GRADA Publishing, 2004
5. Hes, A., et al., Consumer behavior when buying food, publishing ALFA, Prague, 2010
6. Foret, M., Stávková, J., Marketing Research, GRADA Publishing, 2004
7. Morrison, Marketing hospitality and tourism, Victoria Publishing, Prague, 1995

THEORY OF MANAGEMENT (ERET7E)

Department of Management
Faculty of Economics and Management

Lecturer:	doc. Ing. Tomáš Macák, Ph.D.
Teaching period:	Spring semester
Type subject:	Bachelor
ECTS credit:	5.0
Assessment:	written and oral
Marking scale:	4-point scale
Contact hours:	36
Prerequisites:	general knowledge (history, economics)

Objective and general description:

Today, the techniques of management theory applications are known to busi-ness leader, urban planners, farmers, military strategists, space scientists, and public administrators in host of fields. Words such as systems, models, optimization, simulation, and cost-benefit are now common in the public voca-bulary. The objective is thus great for an introductory subject for university students that explains, with minimum of mathematics, how to formulate decision problems, how to solve them using management science concepts, and how to apply the solutions obtained.

Lectures:

1. Introduction to Management Theory. Theories of preferential choice, Managerial decisions in conditions of information uncertainty.
2. Reliability in a hierarchical management.
3. Methods of increasing system reliability, Calculation of number of standby units
4. Design of organization structure. Organization Equilibrium, Situation factors, Project parameters, contingency approach
5. Importance organizational hierarchy, Centralization and decentralization, Span of control.
6. Linear Programming in Management.
7. Logic Control in Management. Logical, continuous (analog) and discrete binding behavior in the organization
8. Approaches to Organization and Management.
9. Decision making approach
10. Forecasting and Planning Methods
11. Management of Human Resources.
12. The importance of control. Control as informative influence: Forward supervision, Feedback control. Control as activity

Seminars:

1. Managerial decisions in conditions of information certainty.
2. Methods of increasing system reliability, Calculation of number of standby units.
3. Centralization and decentralization, Span of control.
4. Linear Programming in Management.
5. Logic Control in Management
6. Forecasting and Planning Methods

Study literature:

1. Management Science: The Art of Modeling with Spreadsheets. Stephen G. Powell. 2010. ISBN 978-0-470-53067-2.
2. Introduction to Management Science. Bernard W. Taylor. 2009. ISBN-10: 0136064361.a
3. MACÁK, T. Vytváření spotřebitelské hodnoty - Prostřednictvím řízení kvality výrobku a unikátnosti návrhu produktu. 2010. Wolters Kluwert Publishing. ISBN 978-80-7357-570-0
4. HRON, J., LHOTSKÁ, B., MACÁK, T. Teorie řízení - podklady na cvičení. Reprografické studio PEF ČZU. Praha 2009.
5. HRON, J., LHOTSKÁ, B., MACÁK, T. Kybernetika v řízení - příklady a aplikace. Praha, vydavatelství ČZU. 2007. ISBN 978-80-213-1640-9.

FINANCIAL ECONOMICS (ENE38E)

Department of Economic Theories
Faculty of Economics and Management

Lecturer: PhDr. Ludwig Dittrich Ph.D
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course provides students with the conceptual understanding of the financial decision making in the firm operating in the market environment under different economic conditions, when the objective is shareholders wealth maximization.

Lectures:

1. Primary goals of the firm.
2. The financial management function..
3. Review of financial statement.
4. Evaluation of firm performance.
5. Time value of money I.
6. Time value of money II.
7. Bond valuation.
8. Common stock valuation.
9. Capital budgeting I.
10. Capital budgeting II.
11. Risk and return.
12. Concept of leverage.

Seminars:

1. Primary goals of the firm.
2. The financial management function.
3. Review of financial statement.
4. Evaluation of firm performance.
5. Time value of money I.
6. Time value of money I
7. Bond valuation.
8. Common stock valuation
9. Capital budgeting I
10. Capital budgeting II
11. Risk and return
12. Concept of leverage

Study literature:

1. GITMAN, L. J. Principles of Managerial Finance. 11. vyd. Boston: Pearson-Addison Wesley, 2005. 976 s. ISBN 978-0321267610
2. KEOWN, A.,Martin, J.D, PETTY, W. Foundations of Finance. 7. vyd. New Yersey: Pearson/Prentice Hall, 2010. 552 s. ISBN 978-0136113652

Bachelor in Economics and Management

Programme syllabi – Third year

ENTERPRISE ECONOMICS (EEED2E)

Department of Economics
Faculty of Economics and Management

Lecturer: doc. Ing. Karel Tomšík, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelor
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course describes, classifies and analyses processes in business entities. There are charcterized economic and legal assumptions to create and develop various forms of business in the international environment. The course deals also with company financing, costs, pricing and other aspects of a company management. An attention is also paid to the assessment of internal business economic results based on financial analysis. All chapters respect the international dimension and students thus acquire the knowledge and experience applicable in the international environment under different economic conditions.

Education Plan:

1. Introduction (Business Objectives, Business Environment)
2. Building up Business. Forms of Business Organizations (Starting-up Business Activities, Legal Forms of Business Organizations)
3. Co-operation and Integration in Business Organisations (Forms of Co-operation and Integration, Diversification)
4. Demand Analysis and Customers Behaviour. Elasticity of Demand and Supply
5. Financing a Business (Forms of Financing, Financial Consequences)
6. Costing (Introduction to Costing, Cost terms and Concepts)
7. Cost-Volume-Profit Analysis.
8. Pricing 1(Factors Affecting Pricing, Pricing Concepts)
9. Pricing 2 (Pricing Strategies, Pricing Tactics, Legal and Ethical Considerations)
10. Evaluation of Economic Information in a Business Enterprise (Analysis of Financial Statements)
11. Managerial Decision (Business information for managerial decision, Explicit and Implicit Costs

Study literature:

1. KEAT, P G. -- YOUNG, P K Y. Managerial economics : economic tools for today's decision makers Paul G. Keat, Philip K.Y. Young. Upper Saddle River: Prentice Hall, 2003. ISBN 0-13-110539-6.
2. WALL, S. -- GRIFFITHS, A. Applied economics. Harlow: Financial Times Prentice Hall, 2007. ISBN 978-0-273-70822-3.
3. SADKA, E. -- PINES, D. -- ZILCHA, I. Topics in public economics : theoretical and applied analysis. Cambridge: Cambridge University Press, 2010. ISBN 978-0521144865.
4. WALL, S. -- GRIFFITHS, A. Economics for business and management. Harlow: Financial Times Prentice Hall, 2011. ISBN 978-0-273-73524-3.

NATURAL RESOURCES MANAGEMENT (EREE1E)

Department of Management
Faculty of Economics and Management

Lecturer: Ing. Oldřich Výlupek, MSc, Ph.D.
Teaching period: Autumn Semester / available for Exchange students in Spring semester
Type subject: Bachelor
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

To develop an understanding of the natural resource issues. To develop an understanding of management of natural resources at organisational level. The module introduces understanding of economic issues in the area of natural resources. The course covers lectures, reading material, and assessment of case studies. Latest development as well as business opportunities in the area of natural resources is comprised in the course. Students will be acknowledged with issue of Environmental Impact Assessment.

Lectures:

1. Broad overview on Natural Resource Economics. Why study natural resource economics? The origin of natural resource economics
2. Theoretical frameworks, Efficiency and Choice – utility and social welfare
3. The Allocation of Depletable and Renewable Resources
4. Natural resource and environmental economics principles and process
5. Natural resource scarcity and Economics of recycled materials
6. Ecosystem Functions & Services and Land Management Introduction
7. Biodiversity and Valuation Techniques
8. Paying for ecosystem services
9. Natural resources, Long-Run Growth
10. Eenergy markets, with specific emphasis on oil, gas and coal

Seminars:

1. Monitoring the use of Natural Resources, Introduction to Environmental Impact Assessment, Screening and Scoping, Introduction to Semestral Assignment
2. Primary tools of economic analysis
3. Environmental Impact Identification and prediction, examples of used techniques
4. Environmental Impact Mitigation and Monitoring – techniques used to reduce the predicted impact
5. Guidelines for individual report and group presentation
6. Presentations of final projects

Study literature:

1. Perman, R., Ma, Y., Mcgilvray, J., Common, M. Natural Resource and Environmental Economics, 3rd dition, Prentice Hall, 2003
2. Tietenberg, T., Lewis, L. Environmental and Natural Resource Economics, 8th edition, Pearson Education, USA, 2009
3. de Groot, R., S., Wilson, M., A., Boumans, R., M., J. A typology for the classification, description and valuation of ecosystem functions, goods and services, Ecological Economics, vol. 41, 2002, pp. 393–408
4. Anderson, D., A. Environmental Economics and Natural resource management, 3rd Edition, Routledge, USA, 2010

INFORMATION SYSTEMS (ETE49E)

Department of Information Technologies
Faculty of Economics and Management

Lecturer:	Ing. Pavel Šimek, Ph.D.
Teaching period:	Autumn semester
Type subject:	Bachelor
ECTS credit:	5.0
Assessment:	written and oral
Marking scale:	4-point scale
Contact hours:	36

Objective and general description:

This learning is intended for not-informatics specializations. Schedule, syllabus and education objectives stem from Czech version of this course. Information has become one of very important enterprise source, working with information is being grasped to fundamental "computer literacy" of graduates. Leavers of learning "Information Systems" are being acquainted with basic conceptions from area of information, information systems and manage of information systems.

Lectures:

1. Opening Subject
2. Definition and classification of information systems
3. Selection Precedure and Life Cycle of Information System
4. Managing of Enterprise IS and Information Strategy
5. ERP Systems
6. System integration
7. Economics of Information Systems
8. Critical Factors of Building IS
9. Architectures of information systems
10. Net economy
11. EIS and MIS
12. Outsourcing IS

Seminars:

1. MS PowerPoint
2. MS PowerPoint
3. Using of Selected ERP Information System
4. WCA Framework, Case Study
5. Presentations of Team Projects
6. Presentations of Team Projects

Study literature:

1. P. Baltzan. Information Systems / Edition 2. McGraw-Hill Education, 2012. ISBN: 00733768686
2. L. Turner, A. Weickgenannt. Accounting Information Systems: The Processes and Controls. Wiley, John & Sons, Incorporated, 2013. 662 p. ISBN-13: 9781118162309
3. R. Stair Fundamentals of Information Systems. Cengage Learning 2013. 560 p. ISBN-13 9781133629627
4. R. K. Raine, H. J. Watson, B. Prince Management Information Systems. Wiley, John & Sons, Incorporated, 2013. 672 p. ISBN-13 9781118443590

HUMAN RESOURCES MANAGEMENT (ERET6E)

Department of Management
Faculty of Economics and Management

Lecturer: Richard Selby, Ph.D.
Teaching period: Autumn semester
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The goal of the course is to deepen and expand knowledge of personnel management and personnel activities of a manager and to obtain deeper knowledge and skills in areas like recruitment, adaptation, work performance motivation and stimulation, employee performance appraisal, training, development and career management. The basic forms of teaching include lectures and seminars oriented on practicing some of the skills as well as on cultivating opinions during case studies solution. A project on selected personnel management activity in a particular organization forms both a part of the seminars and a prerequisite for to be eligible for the exam.

Education Plan:

1. Concepts and objectives of human resource management
2. Labour market
3. Work potential and competencies
4. Work analysis and work conditions
5. Recruitment and selection of employees, managing of adaptation processes
6. Work behaviour motivation, rewarding employees, social policy
7. Employee performance appraisal, training and development
8. Labour mobility management, employee turnover, career management
9. Subjects of human resource management, personnel department, personnel information system
10. Personnel activities of managers
11. Organisation of human resources management in organisations, occupational relations and relations with trade unions
12. HR planning

Study literature:

1. Armstrong, M; Armstrong's Essential Human Resource Management Practice: A Guide to People Management; Kogan Page 2010; ISBN-13: 978-0749459895
2. CRAWLEY, E., SWAILES, S., WALSH, D. Introduction to international human resource management. Oxford, United Kingdom: Oxford University Press, 2013. ISBN 9780199563210.
3. LUSSIER, R. N., HENDON, J. R. Human resource management: functions, applications, & skill development. Second edition. Los Angeles: SAGE, 2016. ISBN 978-1452290638.
4. PINK, D. H. Drive: the surprising truth about what motivates us. New York: Riverhead Books, 2011. ISBN 1594484805.

MARKETING MANAGEMENT (ERET5E)

Department of Management
Faculty of Economics and Management

Lecturer: Ing. Stanislav Rojík, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Fundamental concepts of Marketing and marketing Management. The basic form of teaching are lectures and tutorials, complete with case studies, examples and independent and/or group-work.

Lectures:

1. Marketing theory: Concept of marketing versus sales; concept of a market; relationships; marketing process
2. Marketing theory: Enhanced STEP analysis, the 7-level marketing mix; value chain
3. Marketing theory: Segmentation
4. Marketing theory: SWOT analysis, and its application in marketing
5. Marketing theory: Marketing research, methods and techniques
6. Marketing theory: Product life-cycle; Marketing management: Managing the marketing cycle; defining marketing objectives
7. Marketing management: Marketing plan
8. Marketing Management: Customer communication; advertising
9. Marketing theory and management: Buyer behaviour; decision making unit
10. Marketing management: Customer care; quality
11. Marketing management: Marketing ethics
12. Marketing theory and management: Current trends in Marketing - Marketing 3.0

Seminars:

1. Consideration and discussion of the marketing process; STEP analysis for a fictitious company. Consideration of the components of a comprehensive Marketing mix
2. Segmentation exercise; SWOT analysis for the company
3. Marketing research exercise; Managing the Product life cycle
4. Produce a marketing plan (I); Advertising/promotion in context of the marketing plan
5. Quality and Customer care in the context of the marketing plan; Production of the marketing plan (II)
6. Presentation and defence of Marketing Plan

Study literature:

1. Kotler, P., Keller, K.L., Brady, M., Goodman, M., Hansen, T.; Marketing Management; Pearson 2009; ISBN-13: 978-0273718567
2. Kotler, P.; Kotler on marketing; Free Press (Simon & Schuster UK Ltd); ISBN 0-684-86047-3
3. Jay, R.; Successful marketing plans; Hodder & Stroughton (UK) 1999; ISBN 0-340-747579

ENVIRONMENTAL ECONOMICS (EEEB2E)

Department of Economics
Faculty of Economics and Management

Lecturer: Ing. Petr Procházka, Ph.D., M.Sc.
Teaching period: Spring semester
Type subject: Bachelor
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Aim of the subject is providing students with teoretical knowledge of economic approaches in area of sustainable development, pricing of natural sources and their use. Further pieces of knowledge in delimitation of specifics of expert activities in relation to environment of life. On base of theoretical knowledge possible ways and means will be discussed and to secure and maintain the environment of life. The course unit is organised in lectures and seminars. The students are required to prepare projects as a part of their out-of class educational activities.

Lectures:

1. Introduction, environmental economics goals, definitions and background
2. Application of environmental economics to renewable resources
3. Aplication of environmental economics to non-renewable resources, their depletion and conservation
4. Public goods
5. Externalities
6. Solutions for externalities (Coase theorem,…)
7. Basics of non-market goods valuation
8. Applications of environmental economics theory to the areas of sustainable agriculture
9. Applications of environmental economics theory to the areas of water
10. Applications of environmental economics theory to the areas of air
11. Applications of environmental economics theory to the areas of waste management
12. Applications of environmental economics theory to the areas of biosphere

Seminars:

1. Introduction to environemntal economics
2. Cost benefit analysis I.
3. Cost benefit analysis II.
4. Non-market evaluation
5. Environmental policies appraisal
6. Test

Study literature:

1. Norman J. Vig: Environmental Policy: New Directions for the Twenty-First Century, Fourth editon, 2002
2. Charles D. Kolstad: Environmental Economics, Oxford University Press, 1999
3. Robert N. Stavins: Economics of the Environment, W.W. Norton & Company. 2000
4. Tom Tietenberg: Environmental and Natural Rerousce Economics, Sixth edition, 2002
5. John Glasson et al: Introduction to Environmental Impact Assessment, Routledge, 1998
6. Roger Perman et al: Natural Resource and Environmental Economics, Prentice Hall, 2003

RURAL SOCIOLOGY (EHE01E)

Department of Humanities
Faculty of Economics and Management

Lecturer: prof. PhDr. Michal Lošťák, Ph.D.
Teaching period: Spring semester
Type subject: Bachelor
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:
Rural sociology gives the students the information about sociology as one of the social sciences and latter relates it to rural and farming issues. The course starts with outlining sociological concepts and approaches (incl. shor insights into history of sociology). During the course the students are required to use the practice of sociological imagination to look for clues. The students are also trained in sociological research. They are informed about rural and farming issues (e.g. impacts of urganizaitons on the ocuntryside, food, globalization of agriculture, institutions and organizations in agriculture, incl. ownership).

Lectures:
1. What is sociology about
2. Development of sociological theory
3. Main concepts in sociology
4. Doing sociological research
5. Defining the countryside
6. Development of rural sociology (main issues)
7. Urbanization and the countryside
8. Sociology of agriculture – its predecessors and reasons for its origin (what can we learn from)
9. Agriculture as social activity. Main focus in the sociology of agriculture .
10. Globalization and the agriculture
11. Food as social and cultural phenomenon
12. Social aspects of rural development

Seminars:

1. The importance of sociology in everyday life
2. Culture and our everdy life
3. Research in sociology - practical examples
4. Evaluating rural and urban (values of these settings) - team work
5. Why do we need agriculture - the participative game
6. Mc Donalds restaurant in CULS campus? - discussion

Study literature:

1. Bailey, K.D. 1987: Methods of Social Research (third edition). New York: The Free Press, A Division of Macmillan Publishing Co., Inc.
2. Giddens, A. 1989. Sociology. Cambridge: Polity Press.
3. Nelson, L. 1969. Rural Sociology. Minneapolis: University of Minnesota Press.
4. The Rural Sociology of the Advanced Societies /Critical perspectives/ (edited by Frederick H. Buttel and Howard Newby). 1982. Montclair: Allanheld, Osumn Co Publishers, Inc.

THEORY OF ACCOUNTING (EUE51E)

Department of Trade and Accounting

Faculty of Economics and Management

Lecturer: Ing. Marta Stárová, Ph.D.
Teaching period: Spring semester
Type subject: Bachelor
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The subject focuses fundamental principals of financial accounting. An accounting cycle is introduced. Students are guided to record elementary transactions regarding long term assets, current assets, equity and liabilities and they are leads to prepare financial statements. Revenues and expenses are accented.

Lectures:

1. Financial accounting, users of accounting information, legal framework, accounting harmonization. Financial statements.
2. Balance sheet, transaction effects. Accounting cycle, accounting documents, accounts.
3. Income statement, profit/loss, expenses, revenues. Operating expenses and revenues.
4. Inventories - characteristics, purchased inventories method A (perpetual method), finished products, work in progress, animals.
5. Intangible and tangible long term assets - characteristics, acquisition, depreciation and liquidation.
6. Taxes - direct taxes and excise duty. Value added tax.
7. Employees payroll, personal income tax.
8. Financial expenses and revenues, extraordinary expenses and revenues. Accrual principle, accruals and deferrals.
9. Equity. Profit distribution, loss coverage.
10. Corporation income tax. Income statement structure.

Seminars:

1. Classification of balance sheet items. Balance sheet construction, transaction effects. Accounting documents, journalizing, accounts, posting.
2. Expenses and revenues recording. Operating expenses and revenues. Purchased inventories.
3. Finished products, work in progress, animals recording. Intangible and tangible long term assets acquisition, depreciation and liquidation recording.
4. Taxes - direct taxes and excise duty recoding. Value added tax recording and reporting to state authorities. Employees payroll transactions recording, personal income tax calculation.

5. Accruals and deferrals recording. Financial expenses and revenues, extraordinary expenses and revenues recording. Profit distribution, loss coverage. Corporation income tax calculation and recording.

Study literature:

1. STÁROVÁ, Marta. Fundamentals of Accounting - Theory, Exercises and Dictionary. Prague: CULS Prague, 2010. 135 str. ISBN 978-80-213-2110-6
2. ESKEV Robert K.; JENSEN Daniel L. Financial Accounting. USA: McGraw-Hill Companies, 1996. 896 str. ISBN: 0-07-021355-0
3. EPSTEIN, Barry J., JERMAKOWICZ, Eva K. Interpretation and Application of International Financial Reporting Standards. Canada: John Wiley & Sons, Inc., 2007. 1 344 str. ISBN: 978-0471-79823-1
4. LÖRINCZOVÁ, Enike. Accounting. Prague: CZU Prague, 2006. 220 str. ISBN 80-213-1471-0

FUNDAMENTALS OF LAW (EJE33E)

Department of Law
Faculty of Economics and Management

Lecturer: Mgr. Bc. Sylva Řezníková, Ph.D., MA
Teaching period: Spring semester
Type subject: Bachelor
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of this course is to give a broad and general introduction to the concept of law and legal methods as well as to present some of the most critical and/or practical legal issues. The lectures will be followed by seminars (study groups) where some of the pertinent aspects will be discussed and a few examples will be dealt with in detail. At the end of the course there will be a closed book written exam (a multi-choice test) and a short oral exam for which both credit and a grade will be awarded. In order to be allowed to sit for the exam, the students must attend seminars (study Groups) and successfully complete the assignment – a small research project regarding the definition of law or of the legal system.

Lectures:

1. Introduction.
2. The definition, nature, objectives and functions of law, legal systems.
3. Family of legal systems.
4. Types and categories of law.
5. International law.
6. EU law and institutions.
7. Court of Justice of EU and the Case-law.
8. Public law – Constitutional law, Administrative law. Criminal law and Labour law.
9. Private law I. – Civil law, Commercial law, Intellectual property law.
10. Private law II. – Common-law perspective (property, contracts, torts)
11. Procedural law I. – Adjudication. Procedural law II. – Mediation, Arbitration.
12. ProcLaw in the globalized society – Cross-border transactions, Business Forms, Global competition (Antitrust, Unfair Competition), AML, Bribery, Embargos. Review.edural law II. – Mediation, Arbitration.

Seminars:

1. The definition, nature, objectives and functions of law, legal systems.
2. Family of legal systems 1/2
3. Family of legal systems 2/2
4. Types and categories of law.
5. International law.
6. EU law - sources.
7. EU law institutions.
8. Substantive law. Procedural law.
9. Public law.
10. Private law.
11. Arbitration.
12. Projects presentation.

Study literature:

1. MacGregor Pelikánová, Radka. Introduction to law for business. 1st Edition. Ostrava, CZ: Key Publishing, 2012, ISBN 978-80-7418-137-5 .. MacGregor Pelikánová, Radka. Introduction to law for business. 1st Edition. Ostrava, CZ: Key Publishing, 2012, ISBN
2. Craig, Paul and de Búrca, Craínne. EU Law: Text, Cases, and Materials, Oxford University Press, Oxford, UK, 4th edition, 2008, ISBN 978-0-19-927389-8.
3. Cini, Michelle, Borragán, Nieves Pérez-Solórzano. European Union Politics. 3rd edition. Oxford, UK : Oxford University Press, 2010. ISBN 978-0-19-9548637.
4. Honoré, Tony. About law: a short introduction. Oxford, UK : Oxford University Press, 2005, ISBN 0-19-876387-5.

Bachelor in Informatics

Programme syllabi

Bachelor INFOA PROGRAMME SYLLABI

FIRST YEAR

AUTUMN SEMESTER

SPRING SEMESTER

SECOND YEAR

AUTUMN SEMESTER

SPRING SEMESTER

THIRD YEAR

AUTUMN SEMESTER

SPRING SEMESTER

Bachelor in Informatics

Programme syllabi – First year

INTRODUCTION TO PRINCIPLES OF COMPUTERS (EIE55E)

Department of Information Engineering
Faculty of Economics and Management

Lecturer: Ing. Jiří Brožek, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The goal of the subject is to acquaint students with architecture of current software applications. It's mean methods of working with static data structures (array, record, object) and dynamic data structures (pointer, list, file, ...), the principles of structured oriented programming (SOP) and methods of data searching (value search, lookup table, binary search trees, ...) and data sorting.

Lectures:

1. Information and data in computers, data encoding. Computer software, machine instructions, machine code, operand addressing, logical instructions.
2. Operating system and its role and interfaces. Processes, process states, process determinism and cooperation. Resource asigment. Problem of eating philosophers.
3. Algoritm, algoritm representation, algoritm complexity. Structured oriented programming (SOP).
4. Program, programming language. Modular program architecture. Software living cycle. Virtual machine.
5. Static data structures - basic data types, compound types (array, record, object). Compound types hierarchy. Entities and entity relationship. Matrix as a data structure.
6. Recursion, recursive programming and methods which use a recursion ("Divide and conquer" and "Cut and search" methods).
7. Dynamic data structures - pointer, linked list, tree, graph. Methods of work with dynamic data structures.
8. Special data structures - queue, stack, methods of implementation and using. File as a data structure, data consistence and integrity in files. Files and databases.
9. Methods of data search - value search, lookup tables, data in relation databases.
10. Methods of data search - (binary) searching trees, B-trees, ... Construction and methods of using.
11. Methods of data sorting - principles, properties and selection of optimal sorting method.
12. Software systems architectures - methods of design, properties, using. Objected oriented design. Priciples and properties of agile design.

Seminars:

1. Data encoding. Operand addressing. Logical instructions.
2. Algorithm and structured oriented programming. Case tool Microsoft Visual Studio.
3. Static data structures - basic data types, array, record, object, compound data types, matrix.
4. Recursive programming. Dynamic data structures - pointer, linked list. Data structures queue and stack.
5. Methods of data search - value search, lookup tables, binary search trees.
6. Methods of data sorting - implementation and properties of selected methods.

Study literature:

1. PERGL,R.,BUCHTELA,D.. Software Architecture. [online]. [cit. 2013-03-27]. Available at https//moodle.czu.cz/course/view.php?id=7735
2. MALIK, D. C Programming program design including data structures. 6th Ed. Boston, MA Course Technology, Cengage Learning, 2012, p. cm. ISBN 978-113-3526-322.

ALGORITHM DEVELOPMENT (ETEA1E)

Department of Information Technologies
Faculty of Economics and Management

Lecturer: Ing. Havránek Martin, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course develops skills algorithms. Not used a specific programming language. Students are motivated by means of logical tasks, puzzles, etc. The aim of this subject is to learn basic if algoritmization, programming language is used for testing of programs.

Lectures:

1. Basis of Algorithms
2. Basis of Algorithms
3. Creating a Program
4. Data Types - Scalar Types
5. Program control statement
6. Program control statement
7. Operators, expresions
8. Functions and Procedures,
9. Recursion
10. Array, pointer
11. Files, input, output
12. Files, input, output

Lectures

1. Basis of Algorithms
2. Data Types - Scalar Types
3. Program control statement
4. Operators, expresions, Array, string
5. class exam, Functions and Procedures, Recursion
6. Files, input, output

Study literature:

1. Kruse R., Tondo C. L., Leunig B. 1996, Data structures and program design in C, prentice Hall, ISBN 0-13-288366-X
2. Darnell, P.E. - Margolis, P C A Software Engineering Approach. Springer 1996. 50s. - ISBN 0-387-94675-6
3. Weiss M.,A. Data structures and Algorithm Analysisi in C, Addison Wesley, 1997, ISBN 0-201-49840-5

THEORY OF MANAGING ORGANISATIONAL SYSTEMS (EREP8E)

Department of Management
Faculty of Economics and Management

Lecturer: Doc. Tomáš Macák, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Today, the techniques of management theory applications are known to business leader, urban planners, farmers, military strategists, space scientists, and public administrators in host of fields. Words such as systems, models, optimization, simulation, and cost-benefit are now common in the public vocabulary. The objective is thus great for an introductory subject for university students that explains, with minimum of mathematics, how to formulate decision problems, how to solve them using management science concepts, and how to apply the solutions obtained.

Lectures:

1. Introduction to Management Theory. Theories of preferential choice, Managerial decisions in conditions of information uncertainty
2. Reliability in a hierarchical management
3. Methods of increasing system reliability, Calculation of number of standby units
4. Design of organization structure. Organization Equilibrium, Situation factors, Project parameters, contingency approach
5. Importance organizational hierarchy, Centralization and decentralization, Span of control
6. Linear Programming in Management
7. Logic Control in Management. Logical, continuous (analog) and discrete binding behavior in the organization
8. Approaches to Organization and Management
9. Decision making approach
10. Forecasting and Planning Methods
11. Management of Human Resources
12. The importance of control. Control as informative influence: Forward supervision, Feedback control. Control as activity

Seminars:

1. Managerial decisions in conditions of information certainty
2. Methods of increasing system reliability, Calculation of number of standby units
3. Centralization and decentralization, Span of control
4. Linear Programming in Management
5. Logic Control in Management
6. Forecasting and Planning Methods

Study literature:

1. Donnely, J. H., Gibson, J. L., Ivanicevich, J. M. (1997). Management. Praha: Grada.
2. Koontz, H., Weihrich, H. (1993). Management. Praha: Victoria Publishing.

MATHEMATICAL LOGIC AND GRAPHS THEORY (EAE55E)

Department of Systems Engineering
Faculty of Economics and Management

Lecturer: prof. RNDr. Jaroslav Havlíček, CSc.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Explanation of basic mathematical concepts, terms and procedures of basic higher calculus. Theoretical and practical knowledge of the differentiation of the functions in creating solutions to other similar single well-defined mathematical problems. Knowledge base for the use of mathematics in other subjects involved in the HE curriculums.

Lectures:

1. Equations, inequalities, radicals, binomial expressions, polynomials, fractions, complex numbers.
2. Functions, algebraic functions, transformation, inverse, plotting.
3. Non-algebraic functions, transformation, inverse, plotting.
4. Analytic geometry in V2, lines, conic sections.
5. Limits and continuity 1: Definition, one/two-sides limits, calculating using limit laws, direct substitution property.
6. Limits and continuity 2: Indefinite limits, indeterminate forms of limits, vertical/oblique asymptotes.
7. Limits and continuity 3: Special limits, continuity of function.
8. Derivatives 1: Tangent/normal lines, slopes, position and velocity, acceleration, definition of derivative.
9. Derivatives 2: Differentiation rules for algebraic and non-algebraic functions, chain rule.
10. Differentiability and continuity, implicit derivation, l´Hospital rule. Higher derivatives, differentials.
11. Application of the Derivative 1: Maximum and minimum values, local and global maxima and minima. Local and absolute extrems of functions of several variables. Course of the function.
12. Local and absolute extrema of functions of several variables. Course of function. Practical application of graphs: The shortest and most probable path in the graph. Optimal arrangement in the charts, implementgation in ICT.

Seminars:

1. Higher algebraic operations. Basic functions.
2. Transformation of algebraic functions, inverse function, plotting.
3. Transformation of non-algebraic functions, inverse function, plotting.
4. Lines, conic sections.
5. Limits, limit laws, limits and continuity of the function. Composite functions.
6. Domain of the function. Easy points of the function. Asymptotes.
7. Slope of the function. Geometrical and physical applications of the limit.
8. Differentiation of functions. Basic rules.
9. Differentiation of functions. Composite functions. Chain rule.
10. Derivatives of implicit functions. Logarithmic derivation. l´Hospital rule. Higher derivatives, differentials.
11. Maximum and minimum values, local and global maximums and minimums. Curves sketching, graphing of functions.
12. Graphs. Types and properties of representative types of graphs. Practical application of graphs, use of graphs in ICT.

Study literature:

1. Hoffmann, L. D., Bradley, G. L.: Finite Mathematics with Calculus, McGraw-Hill, 1995, ISBN 0-07-029325-X
2. On-line: http://en.wikipedia.org/wiki/Portal:Mathematics
3. On-line: Eric W. Weisstein: MathWorld - A Wolfram Web Resource, http://mathworld.wolfram.com

FUNDAMENTALS OF JURIDICAL SCIENCES (EJE37E)

Department of Law
Faculty of Economics and Management

Lecturer: Mgr. Michal Reichert, DiS.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of the course is to give a broad and general introduction to the concept and especially the terminology of law as a meta-language in relation to common Czech language. The course deals with the development of law as a normative system and it clarifies the conception of law, major legal systems including the changes brought about by the EU legislation, it discusses the problems such as damage, liability, property law, debenture etc. Within the frame of the dichotomy of private and public law, it introduces the particular disciplines of the valid legal system of the Czech Republic.

Lectures:

1. Introduction.
2. The definition, nature, objectives and functions of law, legal systems.
3. Family of legal systems.
4. Types and categories of law.
5. International law.
6. EU law and institutions.
7. Court of Justice of EU and the Case-law.
8. Public law - Constitutional law, Administrative law. Criminal law and Labour law.
9. Private law I. - Civil law, Commercial law, Intellectual property law.
10. Private law II. - Common-law perspective (property, contracts, torts).
11. Procedural law I. - Adjudication. Procedural law II. - Mediation, Arbitration.
12. Law in the globalized society - Cross-border transactions, Business Forms, Global competition (Antitrust, Unfair Competition), AML, Bribery, Embargos. Review.

Seminars:

1. The definition, nature, objectives and functions of law, legal systems.
2. Family of legal systems.
3. Types and categories of law.
4. International law.
5. EU law and institutions. Court of Justice of EU and the Case-law.
6. Substantive law - Public law, Private law. Procedural law.

Study literature:

1. Barnes, A. James, Dworkin, Terry Morehead, Richards, Eric L. Law for Business. 11th edition. New York, USA McGraw-Hill Irwin, 2012. ISBN 978-0-07-131457-2.
2. Craig, Paul and de Búrca, Craínne. EU Law Text, Cases, and Materials, Oxford University Press, Oxford, UK, 4th edition, 2008, ISBN 978-0-19-927389-8.
3. Cini, Michelle, Borragán, Nieves Pérez-Solórzano. European Union Politics. 3rd edition. Oxford, UK Oxford University Press, 2010. ISBN 978-0-19-9548637.
4. Honoré, Tony. About law a short introduction. Oxford, UK Oxford University Press, 2005, ISBN 0-19-876387-5.
5. MacGregor Pelikánová, Radka. European Commercial Jurisprudence and Case-law - LL.M. Study Manual, B.I.B.S., Key Publishing, 2nd significantly amended and extended edition, August 2011, Brno, ISBN 978-807418-118-4 [published in Czech with a substantial English summary]
6. Partington, Martin Introduction to the English Legal System - Law and Society the Purposes and Functions of Law. 3rd edition. Oxford, UK Oxford University Press, 2006. ISBN 978-0199278299.

PHYSICAL TRAINING (RTX06Z), (RTX07Z) (RTX08Z) (RTX09Z)

Department of Physical Education

Lecturer: PhDr. Dušan Vavrla
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0
Assessment:
Marking scale:
Contact hours: 28

Objective and general description:

Compulsory physical education is taught as a non-credit course for first and second year at Faculty of Business and Economics. The scope of compulsory education is always once a week activity chosen by the students. At the beginning of the study, students have to take a performance test of swimming, and all non-swimmers and weak swimmers pass within hours of PE course of swimming. In addition to swimming, swimmers and advanced beginners can chose from the traditional (football, basketball, volleyball, hockey, TV fitness, strengthening, aerobic, in various forms). Exempt from physical education, students on medical grounds and top athletes at the Czech national team or the highest Czech competitions in various sports. Students with physical limitations are included to the teaching of physical education with an individual program, reflecting their state of health (health swimming or exercise)

Sports:

1. Swimming
2. Volleyball
3. Finess
4. Aerobics
5. Football
6. Basketball
7. Floorball
8. The rest will be announced at the first course

ENGLISH FOR IT (ELE33E_1)

Department of Languages
Faculty of Economics and Management

Lecturer: Ing. Alan M. Westcott
Teaching period: Autumn + Spring semester
Type subject: Masters
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 24

Objective and general description:
The course is interactive and consists of seminars, which are based on advanced English textbooks and include: Expansion of IT vocabulary, Review of grammar, Discussion, Conversation, Debate, Formal writing format. All correction of written and oral presentations is done on a one-to-one basis with general explanations of common errors. Seminars focus on practising advanced English grammar topics presented in mixed groups of Czech and foreign (including Erasmus) students, expanding the students' IT vocabulary. English grammar and vocabulary are discussed using practical examples from the world of information technologies.

Study literature:

1. Computers today.
2. Computer applications.
3. Input/output devices.
4. Input/output devices for the disabled.
5. Storage devices.
6. Basic software.
7. Operating systems.
8. Graphical user interface.
9. Spreadsheets.
10. Databases.
11. Faces of the Internet.
12. Graphics and Design.

Study literature:

1. ESTERAS, S.R. Infotech English for computer users. 3rd edition, Cambridge University Press, Cambridge, 2003. 160 p. ISBN 0-521-75428-3.
2. MCCARTHY, M. and O'DELL, F. Academic Vocabulary in Use. Cambridge University Press, Cambridge, 2008. 176 p. ISBN 3-125-39177-6.

INTRODUCTION TO STUDY (EXE31Z)

Economic Faculty

Lecturer: Ing. Bohuslava Boučková, CSc.
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 1.0
Assessment:
Marking scale:
Contact hours: 8

Objective and general description:

Introduction to Study introduces students to the basic rules and procedures for study at the Economic Faculty. In addition, students get familiar with the environment and practices of CULS. In this subject students are introduced to the Study and Examination Regulations, safety procedures, internal rules of the faculty, information systems and the key contact persons.

Lectures:

1. To acquaint students with the environment CUA and information systems, especially LMS Moodle, where students can find all other information required for completing the course.

Study literature:

Higher Education Act 111/1998 Coll.

COMPUTER ARCHITECTURE (EIE56E)

Department of Information Engineering
Faculty of Economics and Management

Lecturer: Ing. Jiří Brožek, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Students will learn foundations of computer systems architecture with respect to different levels of using. Students will learn how to represent information using data, what are the basic commands in computer systems. The classic von Neumann architecture and the corresponding processing model is taught. Other computer systems parts are discussed, as well, including peripheral devices. Students get acquainted with structured algorithms and their graphical representation. Foundations of software engineering and programming languages are presented, as well as foundations of operating systems of contemporary computers.

Topics:

1. Numeric systems, basics of logic
2. Numeric systems - decadic, binary, hexadecimal, conversions.
3. Logical circuit, combinational and sequential logical circuits, analyses and synthesis logical curcuits
4. Representation of numbers in computer.
5. Semiconductor elements, realisation of logical circuits by transistors
6. Logic introduction - propositional logic and boolean algebra, disjunctive and conjunctive normal forms (DNF, CNF).
7. Combinational logic circuits - COD, DEC, MUX, DMUX
8. Karnaugh maps.
9. Sequential logic circuits - S-R circuit, D-circuit J-K circuit
10. Logic circuits - analysis and synthesis, implementations of logic circuits using semiconductor elements.
11. Combinational logic circuits - main types of logic circuits and their utilisation (COD, DEC, MUX).
12. Von Neumann computer architecture, schema of actual type of computer, CPU principle
13. Sequentional logic circuits - main types of logic circuits and their utilisation (S-R circuit, D circuit, J-K circuit).
14. Realisation of computer components - CPU, ALU, interupting system, memories
15. Realisation of computer components - cache memories, addressing system, bus management system
16. Von Neuman's architecture - principles of contemporary computer systems.

17. Implementation of main computers parts - processor, memory, addressing, I/O modules, buses, ...
18. Integratet cirucuits, current and future technologies of integrated circuits construction
19. Micro and nano technologies - CMOS technologies, nanotechnologies.
20. Computer components - mainboard, operating memory, magnetic and optic memory medias
21. Computer components - imaging units, other peripherals devices
22. Computer components - motherboard, operational memory, media, displays, ...
23. Nontraditional architectures of computing systems - paralel systems, neurocomputers, quantal computers
24. Special computer architectures - neurocomputers, quantum computers, ...

Seminars:

1. Course introduction, numeric systems
2. Propositional Logic and Boolean Algebra
3. Disjunctive and conjunctive normal form
4. Analysis and Synthesis of Logic Circuits
5. Semiconductor and integrated circuits
6. Combinational logic circuits
7. Sequential Logic Circuits
8. CPU principles, basic ALU design
9. ROM and PROM memories design
10. Cache memories design
11. PC components - CPU, HDD, graphic card
12. PC components - peripheral devices

PROGRAMMING (ETEA2E)

Department of Information Technologies

Faculty of Economics and Management

Lecturer: Ing. Martin Havránek, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim is to further deepen the already acquired practical knowledge of algorithms and programming using the language C#. Students will gain knowledge and practical experience of dealing with extensive examples. Lectures: theory and formal foundations of the subject. Exercises are in the computer lab. Requirement for the credit is to develop their work and tests.

Lectures:

1. Programming Language introduction
2. Basic properties of language C#, variable declarations, selection
3. Data types and iterations in C#
4. Data types continue
5. Functons, structures
6. Debugging
7. Text files
8. XML files
9. Implementation of user inputs
10. Selected functions and libraries in .NET
11. Sorting algorithms
12. Summary

Seminars:

1. Introduction to programming in C#, declaration of variables, selection
2. String, Array, Iteration
3. Structures, Functions, Debugging
4. Text, CSV and XML files
5. Implementation of user inputs
6. Selected functions and libraries in .NET, Sorting algorithms, Summary

Study literature:

1. Weiss, M.,A. Data structures and algoritmm analysis in C. ADDISON WESLEY 1999. 100s. - ISBN 0-201-49840-5
2. JOHNSON, Bruce. rofessional Visual Studio 2017. Indianapolis, Indiana: Wrox, a Wiley brand, 2017. ISBN: 9781119404583
3. Microsoft Visual C# 2017: an introduction to object-oriented programming. Australia: Cengage, 2018. ISBN 1337102105;978133710210
4. MUELLER, John Paul. C# 7.0 all-in-one for dummies. Indianapolis, IN: John Wiley and Sons., 2017. ISBN 9781119428114.
5. NAGEL, Christian. Professional C# 6 and .Net Core 1.0. Indianapolis, Indiana: Wrox, a Wiley brand, 2016. ISBN 9781119096603

OBJECT MODELLING (EIE95E)

Department of Information Engineering
Faculty of Economics and Management

Lecturer: doc. Ing. Vojtěch Merunka, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

object-oriented programming, object-oriented modelling, UML. A student is able to objectively evaluate the suitability of deploying a particular software system into practice. He/she is able to apply their new knowledge to future versions of database and knowledge systems. Generally, this matter contributes to the skills of critical thinking as to the precise and less dependence on individual products, specific software companies.

Lectures:

1. course intro
2. basic concepts of OOP
3. obect-oriented computational model
4. UML
5. object protocol, polymorphism
6. object set querying
7. normalization
8. design patterns
9. refactoring
10. good structure design issues, scheme changes
11. BORM method
12. OOP support in various programming languages

Seminars:

1. Introduction to the course, student projects assignment
2. Modeling tools introduction
3. Daskalos tool training, semestral projects consulting
4. Projects consulting
5. Semestral projects consulting
6. Student projects presentations

Study literature:

1. Development enironments documentation of VisualWorks/Smalltalk and Apple XCode
2. Merunka V. Database Systems Course, textbook CULS, 2004
3. WWW dokumentation of system Gemstone/S and VisualWorks

MATHEMATICS (EAE57E)

Department of Systems Engineering
Faculty of Economics and Management

Lecturer: Prof. RNDr. Jaroslav Havlíček, CSc.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:
After completing the course, students should have developed a clear understanding of the fundamental concepts of single variable calculus and a range of skills allowing them to work effectively with the concepts. Graduates will understand the basic mathematical concepts, terms and procedures used for solutions of various technical, economical and societal problems. The subject is also a prerequisite for other subjects in the curriculum.

Lectures:
1. Logarithmic derivatives. Parametric Curves. Examples Using Parameterized Curves. Polar Coordinates and Graphing. More about polynoms: Evariste Galloise.
2. Antiderivatives. Easy integrals.
3. Primitive function (antiderivatives), indefinite integral. Integration rules, integration of simple functions. Integration methods, integration by substitution. Integration by Parts.
4. Integration methods, integration of rational functions, use of tables. Integration by Partial Fractions. Trig Substitution. Completing the Square.
5. Definite integral. The Fundamental Theorem of Calculus (Fubini theorem). Basic rules for evaluation of proper integrals.
6. Applications of definite integral. Geometric Interpretation of Definite Integrals. Volume of a Wine Glass.
7. Applications of definite integral. Volume of a Sphere, Revolving About x-axis. Volume of a Parabaloid, Revolving About y-axis.
8. Special functions. Integration of parametric functions, functions in polart coordinates. Computing the Length of a Curve. Surface Area. Adding Areas of Rectangles. Lenth of the curve.
9. Functions of sevral variables. Diferentiation and integration. Volumes.
10. Introduction to Differential Equations. Separation of VariablesOrdinary differential equations of the first order. Introduction to the integral of function of several variables.
11. Linear ordinary differential equations of the second order with constant coefficients. Applications of differential equations.
12. Infinite Series. Series Comparison. Power Series. Taylor's Series. Operations on Power Series.

Seminars:

1. Parametric and polar coordinates.
2. Evaluation of easy primitive functions, basic antiderivatives.
3. Integration of the functions: rules.
4. Integration of the functions: rules, substitution, integration by parts.
5. Integration by partial Fractions. Trig substitution and completing the square methods.
6. Definite Integrals. Simple examples: areas between curves.
7. Volumes by cylindrical shells. A|verage value of function.
8. Integration using tables and computers.
9. Improper integrals. Examples of s-curves, probability distribution.
10. Differential equations with separable variables. Homogeneous differential equations.
11. Linear differential equations.
12. Infinite sequences and series. Comparison tests. Absolute convergence, ratio and root tests.

Study literature:

1. Stewart, James (2012) Single Variable Calculus.
2. 7ed., International Edition, Brooks/Cole, ISBN 13 978-0-538-49885-2.
3. Hoffmann, L. D., Bradley, G. L. Finite Mathematics with Calculus, McGraw-Hill, 1995, ISBN 0-07-029325-X.
4. Eric W. Weisstein MathWorld - A Wolfram Web Resource, http//mathworld.wolfram.com.

PSYCHOLOGY OF PERSONALITY AND SOCIAL PSYCHOLOGY (EPEC3E)

Department of Psychology
Faculty of Economics and Management

Lecturer: Mgr. Daniel Messele Balcha
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Psychology as a basic subject is a prerequisite for further study of specialized subjects such as marketing and business control. It helps us to understand the factors affecting the development of human character in society; it conduces to self-knowledge and widens the knowledge in humanities. The aim of the subject is to provide knowledge of general psychological terms, regularities and theories, especially from cognitive and social psychology, interpersonal communication, motivation and personality. Students benefit from this knowledge in seminars in which they will develop practical skills for their future roles and positions thanks to active social learning.

Lectures:

1. Basic disciplines of psychology
2. School of psychology
3. Psychological methodology
4. Psychological dimensions of the development
5. Psychological processes
6. Personality traits
7. Abilities (creativity, intelligence)
8. Motivation
9. Stress
10. Social cognition.
11. Social groups
12. Social behaviour

Seminars:

1. Interview
2. Self-perception
3. Personal growth
4. Training of individual creativity; Brainstorming
5. Bodily constitutions and quick assessment of temperaments
6. Social interaction

Study literature:

1. GROSS, R. Psychology. Oxon Hodder Arnold, 2009. 1007 s. ISBN 0-340-90098-9.
2. HAYES, N. Principles of Social Psychology. Hove Psychology Press, 2005. 168 s. ISBN 0-86377-259-5.

Bachelor in Informatics

Programme syllabi – Second year

DATABASE SYSTEMS (EIE36E)

Department of Information Engineering
Faculty of Economics and Management

Lecturer: Ing. Petr Hanzlík, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The main objective of the course is to acquire knowledge and practical skills in the use of relational database technology in the creation of database-based information systems of business subjects. Upon completion of this course, the learners will have the knowledge and skills necessary to create database-based information systems, including their maintenance and practical operation.

Lectures:

1. Basic concepts of relational database technology
2. Relational datamodel RDM
3. Formal resources of RDM: relational algebra and calculus
4. Priciples of query languages
5. Introduction to query language SQL
6. Creating queries in SQL
7. Standardzation and critique of SQL
8. Principles of data modelling, E-R model
9. Methodics of data model creation
10. Data normalization
11. Conceptual and logical data model
12. Data protection and constraints in database systems

Seminars:

1. Basics of ORACLE, project work
2. Basics of ORACLE, project work
3. ORACLE - commands DDL, project work
4. ORACLE - commands DDL, project work
5. ORACLE - commands DML, project work
6. ORACLE - commands DML, project work
7. ORACLE - commands DML, project work
8. ORACLE - commands DCL, project work
9. ORACLE - commands DCL, project work
10. ORACLE - PL/SQL, project work
11. ORACLE - PL/SQL, project work

Study literature:

1. Feurlicht G., Pokorný J. Can Relational DBMS Scale-up to the Cloud?, in Information Systems Development - Reflections, Challenges and New Directions., Springer Science+Business Media, ISBN 978-1-4614-4950-8
2. Pokorný J. Dealing with dimensions in data warehousing, in Knowledge Discovery for Bussiness Information Systems, Kluwer Academic Publishers 2000, ISBN 0-7923-7243-3
3. Pokorný J. Database Architectures Current Trends and their Relationships to Requirements of Practice , in Advances in Information Systems Development New Methods and Practice for the Networked Society , Springer Science+Business Media 2007, ISBN 978-0-387-70760-0
4. Mishra, S., Beaulieu, A. Mastering Oracle SQL, 2. vyd.,O'Reilly Media, Inc., 2009. Počet stran 496. ISBN0596552475
5. Kyte, T.Expert Oracle Database Architecture 9i and 10g Programming Techniques and Solutions. 768 pages. Apress 2005. 2005ISBN1430200677

GENERAL ECONOMICS I. (ENE41E)

Department of System Engineering
Faculty of Economics and Management

Lecturer: prof. doc. Ing. Mansoor Maitah, Ph.D. et Ph.D
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course gives students information on contemporary theories of market economy as a basis of economic thinking and decision-making carried out by economic subjects. It enables students to understand both microeconomic and macroeconomic grounds provoking economic transformations.

lectures:

1. Introduction to the basic concepts of general economy. Characteristic of market economy and the role of competition.
2. Offer, demand and the creation of market balance on commodity market.
3. Optimization of consumer behaviour.
4. Theory of a firm – firm goal. Theory of production, production function of a firm.
5. Theory of costs and profits of a firm.
6. Behaviour of a firm under perfect competition.
7. Behaviour of a firm under monopoly.
8. Behaviour of a firm under oligopoly and monopolistic competition.
9. Indicators of the performance of a national economy.
10. Models analysing economic development.
11. Fiscal and monetary policy.
12. Inflation and unemployment.

Seminars:

1. Introduction to the basic concepts of general economy. Characteristic of market economy and the role of competition.
2. Optimization of consumer behaviour.
3. Theory of costs and profits of a firm.
4. Indicators of the performance of a national economy.
5. Fiscal and monetary policy.
6. Inflation and unemployment.

Study literature:

1. MANKIW, N.G. Principles of Macroeconomics. 4.vyd. Texas Dryden Press, 2011. ISBN 978-0538453066
2. MANKIW, N.G. Principles of Microeconomics. 6.vyd. Texas Dryden Press, 2011. ISBN 978-0538453042
3. SAMUELSON, P.A., NORDHAUS, W. Economic. 19. vyd. New York McGraw-Hill, 2009. ISBN 978-0073511290
4. FRANK R.H. Microeconomics and Behavior. 8.vyd. New York McGraw-Hill, 2009. ISBN 978-0070166745
5. HUSTED, S, MELVIN, M. International Economics, 7. vyd. New Yersey Pearson/Prentice Hall, 2007. Pearson. ISBN 978-8958322559
6. PINDYCK, R.S., RUBINFELD, D.L. Microekonomics. 6. vyd. London Prentice Hall International, 2004. ISBN 978-0130084613

COMPONENT-BASED SW DEVELOPMENT (EIE67E)

Department of Information Engineering
Faculty of Economics and Management

Lecturer: Ing. Jiří Brožek, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of the course is to introduce students to the principles of the application design using modern programming languages and development tools. Main focus is on code reusability and using component libraries. Students also learns basics of user interface creation, using of databases in their applications etc. The course also provides introduction to advanced programming techniques like design patterns, refactoring and unit testing. Main programming language for the course is C# language in .NET Framework environment.

Lectures:

1. Introduction to the course, terminology
2. The C# language – objects and classes in C#, syntax
3. The C# language –syntax, comparison with other languages
4. Events control programming
5. .NET Framework and its libraries
6. Collections of objects and work with them, query language LINQ
7. Collections and external data resources – query via LINQ
8. Basic rules of user interface creation
9. Application tuning and profile
10. Refactoring, application of design patterns
11. .NET and the work with network, distributed objects, .NET and multimedia
12. Other technologies, three-layer applications

Seminars:

1. Working with MS Visual Studio, creating console and GUI applications
2. GUI applications, creating GUI using component library, events and their handling
3. Database application using LINQ to Objects
4. Working with graphics
5. Semestral test and project consultations
6. Recatoring and testing, checking of projects, credits

Study literature:

1. Sharp, J. Microsoft Visual C# 2010 - Step by step. 1. vyd. [s.l.] Microsoft Press, 2010. ISBN 978-0735626706
2. Archer, T. Inside C#. 1. vyd. [s.l.] Microsoft Press, 2001. ISBN 978-0735612884
3. Pialorsi, P.; Russo, M. Programming Microsoft LINQ. 1. vyd. [s.l.]]Microsoft Press, 2008. ISBN 978-0735624009
4. Gamma, E.; Helm, R.; Johnson, R.; Vlissides, J. Design Patterns Elements of Reusable Object-Oriented Software. 1. vyd. Boston Addison-Wesley, 1994. ISBN 978-0201633610

APPLIED MATHEMATICS FOR IT (EAE56E)

Department of System Engineering
Faculty of Economics and Management

Lecturer: prof. RNDr. Helena Brožová, CSc.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Overview of linear algebra and operation research methods, their mathematical background and applications, classification of the decision problems making in AI and solving algorithms. Theoretical base of mathematical methods used in economy for analysis and optimal control of systems in AFC. Examples of simple applications.

Lectures:

1. Vector spaces, vectors
2. Matrix, elimination procedures
3. System of linear equations
4. Linear optimisation model
5. Post-optimisation result analysis of linear model
6. Duality theory
7. Simple transportation systems
8. Distribution models
9. Multiple objectives optimisation model
10. Multiple attributes decision model
11. Game theory
12. Decision making model

Seminars:

1. Vectors and matrices operations
2. System of linear equations - Jordanien elimination methods
3. Linear optimization model - simplex algorithm, postoptimization analysis
4. Transportation model, Vogels method, MODI method
5. Multiple criteria decisiom models, the AHP method
6. Matrix game, decision model

Study literature:

1. Dantzig, G. B. Linear Programming and Extensions, Princeton, 1998,648 pp., ISBN 9780691059136.
2. Turban, E., Meredith, J.R. Fundamentals of Management Science. IRWIN 1991. ISBN 0-256-08373-8.
3. Lawrence, J. A., Pasternack, B. A. Applied Management Science Modeling, Spreadsheet Analysis, and Communication for Decision Making, 2. vyd. New York Wiley & Sons, 2002. 649 s. ISBN 0-471-39190-5.
4. Stevenson, W. J. Management science, Irwin, Boston, 1989
5. Anderson, D. R. at all Management Science Quantitative Approaches to Decision Making, West Publ., New York, 1994
6. Bonini, C.P., Hausman, W.H., Bierman, H. Quantitative Analysis for Management. USA IRWIN Mc Grav, 1997.

HUMAN-COMPUTER INTERACTION (EIE70E)

Department of Information Engineering
Faculty of Economics and Management

Lecturer: Ing. Josef Pavlíček, Ph.D
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

This subject takes deep focus at GUI development process problem. For common software products is necessary to be able defining smart user interface according to user requirements and user Mind Model. Graduate student gain deep skills at Human Interface Designing process according to ability using Ergonomics technics. Student will be practicing ASCI ART, Paper Prototyping, and using graphical tools like GIMP, FLASH, and VISIO etc.

Topics:

1. Introduction to the problem of user interface (UI)
2. User interface and ergonomics
3. Techniques of UI requirements gathering and its modelling
4. Graphical user-friendly interface – location of active elements (buttons, lists, control panels)
5. Graphical-friendly UI – use of colours, graphical transitions, line variants, letter fonts, background colours
6. Pattern methods of UI requirements gathering (modelling via ASCI ART, UseCase, Scenario)
7. Flash Prototyping, Graphical model in comparison with ASCI ART
8. Application of OpenSource technologies for modelling – GIMP
9. Introduction to sample project – E-shop
10. E-shop – elaboration by means of UseCase, Scenario and screen modelling
11. Completion of sample application
12. User interface quality testing

Seminars:

1. Exercise:Team game:

   prepare team logo must talk:
   place of company businesses (town where is company placed)
   name of company
   motto company
   origin reason
   20 minutes, don't use characters or words, if numbers only 2
2. Paper prototyping

3. UI Specification training
4. UI Design for civil aircraft navigation
5. Finish student work from last exerciser
6. Custom UI Specification semester work

Study literature:

1. Jakob Nielsen's Alertbox, April 14, 2003 Paper Prototyping
2. The Inmates Are Running the Asylum Why High Tech Products Drive Us Crazy and How to Restore the Sanity by Alan Cooper (Feb 24, 2004)

ADMINISTRATION AND PROCESSING OF GEOGRAPHICAL DATA (NOT OPEN) (EAE62E)

Department of Information Engineering
Faculty of Economics and Management

Lecturer: doc. RNDr. Dana Klimešová, CSc.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course develops the knowledge and the skills of the students in the field of georaphic IS which are now widely used and gives the good overview in image processing and image analysis with special accent to the possibilities and needs of GIS. The digital processing of satellite and aerial data for GIS and the use of multispectral data for the purposes of agriculture, forestry and state administration, landscape planing, marketing and commonly for spatial data modelling. The course consists of lectures and seminars. The lectures form the background for the seminars which are used to develop and to train the knowledge for the lecture and recommended literature. During the seminars the students are required to develop projects showing various dimensions of GIS.

Lectures:

1. primary sources of data for GIS. Remote sensing.
2. Information layers, analytical functions, context.
3. Spatial data models.
4. Geographical DB, satellite and aerial data.
5. Mobile localization. Cartographic representation.
6. Multispectral data, state administration, cadastre, ...
7. Legislation and manage geodata. ZABAGED.
   Analytical functions.
8. GPS, Galileo. Mapping, basic requirements.
9. Project INSPIRE and European colaboration.
10. Landscape management. Digital terrain models.
11. Regional development, line constructions,network management.
12. 3D presentation and modelling.

Seminars:

1. Projects and documents of ArcGIS.
2. Views and theme. Basic operations.
3. Data implementation - images, CAD layouts, event theme.

4. Type of the legend and classification procedure.
5. SQL window. Shapefiles creation and editing.
6. Layout creation and complex presentation of studies.
   Course project.

Study literature:

1. Klimešová D. Geografické informační systémy a zpracování obrazů, skripta PEF ČZU Praha, 2008.
2. Rigaux P., Scholl M., Voisard A. Spatial Databases With Application to GIS, Elsevier Science (USA), 2002.
3. Ott T., Swiaczny F. Time-Integrative GIS, Springer-Verlag Heidelberg, 2001.
4. Landgrebe D. A. Signal Tudory Methods in Multispectral Repote Sensing, Wiley & Sons,

FOREIGN LANGUAGE - FRENCH (ELE34E_1), (ELE34E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: Mgr. PhDr. Milena Dvořáková, MBA
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The course is aimed at complete beginners and is taught in English and on the basis of the English linguistics. The students will learn everyday vocabulary and relevant grammatical/syntactical structures. At the same time, they will encounter the basics of economic terminology and lexical means relative to the university/faculty environment. The course integrates all four skills - listening, reading, writing and speaking. However, it is mainly focused on the communicative aspects of a foreign language.

A two-term subject is concluded at the end of both terms by a final test and in the summer term by an examination (written + oral).

Seminars – autumn semester:

1. Introduction, phonetics, pronunciation, internationalisms.
2. Unité 1 - At the reception I.
3. Unité 1 - At the reception II.
4. Unité 1 - Ways of greeting.
5. Unité 1 - Greetings and introduction
6. Unité 1 - A quick look at the European Union
7. Unité 1 - Test your self
8. Unité 2 - Who are they?
9. Unité 2 - What are they?
10. Unité 2 - A break
11. Unité 2 - Making judgements
12. Unité 2 - European institutions and stereotypes

Seminars – spring semester:

1. Revision, unité 3 - Hello - on the phone.
2. Unité 3 - Hold on - personal pronouns te/vous, expressing cause/result: pourquoi - parce que.
3. Unité 3 - Message - time prepositions and expressions, invitations,-DRE, -IR verbs.
4. Unité 3 - Social expressions - emails, invitations; pouvoir, vouloir, devoir verbs (CAN, WANT, HAVE TO).
5. Unité 4 - Departures, requesting, expressing wishes, booking/purchasing tickets.

6. Unité 4 - At the train station, at the airport, in the city; prepositions of place, asking for directions/giving directions.
7. Unité 4 - Passenger information, near future, expressing future and talking about future events.
8. Your key - hotel and hotel description.
9. Unité 5 - Bookings, check-in, past participle (participe passé), past simple (passé composé).
10. Unité 5 - Office lease - renting a flat, office; expressing opinions.
11. Unité 5 - Writing - simple formal letters and emails, COD (direct object).
12. Revision (review of grammar and vocabulary), revision test.

Study literature:

1. TAUZIN, B.; DUBOIS, A.-L. Objectif Express 1. Paris: Hachette Livre, 2006. 192 p. ISBN 978-2-01-155427-7.
2. KOZMOVÁ, J.; BROULAND, P. Francais commercial. Praha: Computer Press, 2006. 288 p. ISBN 80-251-1099-0.
3. LEGRAIN, M.; GARNIER, Y. Le Petit Larousse Illustré. Paris: Larousse, 2002. 1786 p. ISBN 2-03-530202-1.

FOREIGN LANGUAGE - GERMAN (ELE35E_1), (ELE35E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: Mgr. Michaela Peroutková, Ph.D.
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The course is aimed at complete beginners and is taught in English and on the basis of the English linguistics. The students will learn everyday vocabulary and relevant grammatical/syntactical structures. At the same time, they will encounter the basics of economic terminology and lexical means relative to the university/faculty environment. The course integrates all four skills - listening, reading, writing and speaking. However, it is mainly focused on the communicative aspects of a foreign language.

The classes are practical in terms of learning a foreign language. The classes are focused on developing and integrating all language skills (speaking, reading, writing and listening). Students work with various short foreign texts (e.g. recommended textbook, workbook, extra topic-related materials and presentations) according to the tasks assigned by the teacher. They also listen to foreign recordings, watch videos while trying to demonstrate the understanding of foreign language inputs. They also deliver short interactive exercises/presentations assigned by the teacher. All supplementary materials, including links to authentic materials, dictionaries and preliminary tests are available via LMS Moodle.

The course takes two semesters and is concluded at the end of both semesters by a final test and in the spring semester by an examination (written + oral).

Seminars – autumn semester:

13. Introduction.
14. International words.
15. In a restaurant.
16. In the language course.
17. Countries and Languages.
18. People - Contacts.
19. Living conditions.
20. Appointments.
21. Important information.
22. Getting around in the city.
23. Transportation.
24. Test.

Seminars – spring semester:

13. Every day life, free time.
14. Professions.
15. Excursion through Berlin.
16. Travelling.
17. Vacation and holiday.
18. Food and drinks.
19. Ordering food in a restaurant.
20. Shopping.
21. Clothing and weather.
22. Body and sport.
23. Seeing the doctor.
24. Test.

Study literature:

5. FUNK, Hermann; KUHN, Christine; DEMME, Silke. Studio d A1 : Deutsch als Fremdsprache. Cornelsen Verlag, 2011. 256s. ISBN 978-3-464-20707-9.
6. FUNK, Hermann; KUHN, Christine; DEMME, Silke. Studio d A1 : Deutsch als Fremdsprache. Sprachtraining mit eingelegten Lösungen. Cornelsen Verlag, 2011. 96s. ISBN 978-3-464-20708-6.
7. Langenscheidt Taschenwörterbuch Englisch - Buch mit Online-Anbindung, Berlin und München : Langenscheidt-Redaktion, 2013. 1632s. ISBN: 978-3-468-11138-9.
1. REIMANN, Monika. Grundstufen - Grammatik für Deutsch als Fremdsprache. Imaning : Max Hueber Verlag, 2007. 186s. ISBN 3-19-011575-3.

FOREIGN LANGUAGE - SPANISH (ELE36E_1), (ELE36E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: Mgr. Alena Drebitková Malá, Ph.D.
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The subject is taught on the basis of English. The language level is intended for the beginners with no language skills. The main goal of this level is to teach students to achieve simple communicative abilities in every-day situations, simple oral and written expressive skills, the ability to read and understand simple texts and finally to understand the spoken language. Through communicative exercises students gradually learn basic grammar and vocabulary.

Classes are practical in terms of learning the foreign language. The classes are focused on developing and integrating all language skills. Students work with foreign texts (e.g. in recommended textbooks) according to the tasks assigned by the teacher. They also listen to foreign texts and have to demonstrate the understanding of foreign language. They deliver presentations assigned by the teacher. The used method is communicative, based mainly on interaction.

The course takes two semesters and is concluded at the end of both semesters by a final test and in the spring semester by an examination (written + oral). Students are not allowed to enrol into the summer term unless they are credited for the winter term.

Seminars – autumn semester:

1. Greetings.
2. What is your name?
3. Natinalities and origin.
4. Phone calls.
5. My flat description.
6. How do I get to …?
7. Renting a flat.
8. What is the time?
9. I like and I do not like.
10. Eating in a restaurant.
11. Asking somebody to do something.
12. Credit test.

Seminars – spring semester:

1. Repaso de las unidades 1-4
2. Cómo voy a ..., la ciudad
3. Dónde está ..., las tiendas
4. Qué hora es?
5. Los números hasta 1000
6. Los hábitos, con qué frecuencia
7. El tiempo libre, el verbo gustar, mis aficiones
8. La comida, en un restaurante
9. Hacer la compra, recetas
10. La ropa, en una tienda de ropa
11. Los materiales, el diseño y la moda
12. Repaso final de las unidades 5-8

Study literature:

1. CASTRO, Francisca; MARÍN, Fernando; MORALES, Reyes. Nuevo ven 1: Libro del estudiante. Madrid: Edelsa, 2005. 192 s. ISBN 84-7711-832-9.
2. CASTRO, Francisca; MARÍN, Fernando; MORALES, Reyes. Nuevo ven 1: Libro de ejercicios. Madrid: Edelsa, 2005. 64 s. ISBN 84-7711-833-7.
3. FENCLOVÁ, Jitka; FOUSKOVÁ, Kateřina. Nuevo ven 1: Studijní příručka. Plzeň: Fraus 2005. 88 s. ISBN 80-7238-481-3.

FOREIGN LANGUAGE - CZECH (ELE37E_1), (ELE37E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: PhDr. Martina Jarkovská, Ph.D.
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The subject is created for students with zero knowledge of Czech but it takes into account that the students will live in the Czech environment and every day they will try to communicate in Czech language. The students will be introduced to the Czech language system and they will learn to express in Czech the information about themselves and their environment. They will be able to communicate in basic situations at university premises, in a shop, in a restaurant, in the town. They will learn vocabulary concerning the taught topics, forms of verbs in the present and past tense, forms of nouns and adjectives in appropriate cases and future verb forms. They will also get to know the Czech culture. The subject is A1 level according to the European Framework for Languages.

Seminars – autumn semester:

1. Lesson 1: What is it? Who is it? What is your name? Where are you from?
2. Lesson 1: What do you study? Verb conjugation. Numbers 0 - 10. Telephone conversations. Email.
3. Lesson 2: Oreintation. Can you tell me the way, please? Modal verbs.
4. Lesson 2: What is your address? Verb conjugation. Numbers 11 - 100.
5. Lesson 3: In the restaurant. Eating and drinking list.
6. Lesson 3: I like. Singular accusative. Hobbies.
7. Lesson 4: My family. Possessive pronouns. Adjectives.
8. Lesson 4: Describing family members. Verb conjugation. Singular and plural accusative.
9. Lesson 5: When do we meet? At what time? What is the date today?
10. Lesson 5: Modal verbs. Do you want to go to/for? I like doing.
11. Lesson 6: Famous people. Who was it? What did you do yesterday? Past tense.
12. Lesson 6: Where were you? Singular locative.

Seminars – spring semester:

1. Lesson 7: Where were you? Static verbs and prepositions "v/ve, na, u (in, on, at). Singular and plural locative.
2. Lesson 7: Where were you on holidays? Weather forecast.
3. Lesson 8: Planning the time. Where are we going? Expressing future. Prepositions "do, na, k" (to, for).

4. Lesson 8: Where? x Where to? Singular genitive. Writing email.
5. Lesson 9: House and flat. Renting and bying house/flat. Prepositions "pro, na, za"(for).
6. Lesson 9: Shops and claims. Singular and plural nominative and accusative.
7. Lesson 10: Travelling. "Long" and "short" verbs of movement.
8. Lesson 10: When will you come for a visit? Verbs with prefixes: "přijít, odejít" (come, leave).
9. Lesson 11: Human body. At the doctor's. Object constructions "Bolí mě..., Je mi..." (I have...ache).
10. Lesson 11: Can you help me? Short personal pronouns in accusative and dative.
11. Lesson 12: Greetings and wishes. Singular dative. Declination of "kdo, co" (who, what) (nominative, dative, accusative,ůocative).
12. Lesson 12: Telephone conversation. At the visit.

Study literature:

1. HOLÁ, Lída; BOŘILOVÁ, Pavla. Čeština Expres 2 (A1/2). 1. vyd. Praha: Akropolis, 2011. 96 s. ISBN 978-80-87481-26-4.
2. REMEDIOSOVÁ, Helena; ČECHOVÁ, Elga; PUTZ, Harry. Do you want to speak Czech? 1. 4. vyd. Liberec: Finidr, 2002. 414 s. ISBN 80-902165-8-7.
3. CONFORTIOVÁ, Helena; CVEJNOVÁ, Jitka; ČADSKÁ, Milada. Učebnice češtiny pro výuku v zahraničí. 1. část. 1. vyd. Praha: Karolinum, 2002. 252 s. ISBN 80-246-0530-9.

OPERATING SYSTEMS AND COMPUTER NETWORKS (ETE2AE)

Department of Information Technologies
Faculty of Economics and Management

Lecturer: Ing. Tomáš Vokoun
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of the course is to explain the general principles of the system software, basic networking and acquaint students with major operating systems under each category of computing devices, including basic network functions. In this course, students will process two team-semester project (case study), which represent and advocate the resulting solution. Monitoring of compliance with study requirements is carried out at contact seminars and via LMS Moodle.

Lectures:

1. Computational model and its development, current models
2. Fundamentals of computer networks, taxonomy of computer networks, network OS
3. Architecture communication functions, RM ISO/OSI, TCP/IP
4. Fundamentals of data communications, data transmission techniques, access methods
5. Broadband (wired, wireless), mobile communications
6. Development and overview of OS, OS classification, trends
7. OS and HW, OS structure and services, OS architecture
8. Processes and threads, memory management, memory virtualization,I / O control
9. External memory and file systems, scheduling and synchronization
10. OS Unix/Linux, Mac OS
11. Operating system MS Windows (Windows XP, Windows 7, Windows 8, Windows Server)
12. OS for mobile devices, other operating systems

Seminars:

1. Entry information: program and organization of the semester, evaluation, seminar works, assembling of work teams - case study
2. Consultation and monitoring - case studies, seminar works
3. Seminar 1 - seminar works presentation
4. Seminar 2 - seminar works presentation
5. Seminar 3 - presentation case studies
6. Seminar 4 - presentation case studies, Pass-eligible

Study literature:

1 FINKEL, Raphael. An Operating Systems - Vade Mecum. New Jersey Prentice Hall. [on-line] URL < ftp//ftp.cs.uky.edu/cs/manuscripts/vade.mecum.2.pdf >
2 O´LEARY, Timothy J.; O´LEARY Linda I. Computing Essentials 2013. Making IT work for you. New York, NY McGraw Hill. 2013. 533 p. ISBN 978-0-07-131753-5.
3 TANENBAUM, Andrew, S.; WOODHULL, Albert. Modern Operating Systems. 3rd edition. Prentice Hall, 2007. 1104 s. ISBN 978-0136006633
4 DYE, Mark A.; MCDONALD, Rick; RUFI, Antoon W. Network Fundamentals CCNA Exploration Companion Guide. Version 10. Indianopolis Cisco Presss.2008. 528 p. ISBN 1-58713-208-7

MARK-UP LANGUAGES (ETE1AE)

Department of Information Technologies
Faculty of Economics and Management

Lecturer: Ing. Alexandr Vasilenko
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The goal is to emphasize the importance of markup languages for the exchange of data (documents) and for structuring websites (applications). The basis of teaching are lectures, exercises in a computer lab and projects on a given topic. Teaching is fully supported by the LMS Moodle. Students after completing the course are able to create custom data store based on XML to present the data according to set criteria and requirements.

Lectures:

1. History of markup languages
2. Markup languages for World wide web
3. New trends in markup languages for World wide web
4. Cascading Style Sheets
5. XML characteristics
6. XML structure definitions, files encoding
7. Advanced tools for XML structure definition
8. Document transformation
9. Query and search in XML files
10. Metadata and other data formats
11. Version control systems
12. Other markup languages

Seminars:

1. Information about, basic exercise form markup languages, HTML
2. Advanced HTML, CSS
3. HTML, metadata and metadata formats
4. XML language, structure definition
5. XML transformation
6. Advanced methods of creation and management of markup languages, version control systems

Study literature:

1. RAY, Erik T. Learning XML. 2nd edition. USA : O'Reilly Media, 2009. 416 s. ASIN: B0043D2EAE
2. TIDWELL, Dough. XSLT.2nd edition. USA : O'Reilly Media, 2008. 992 s. ISBN-13: 978-0596527211
3. HOSOYA, Haruo. Foundations of XML Processing: The Tree-Automata Approach. UK : Cambridge University Press, 2010- 240 s. ISBN-13:978-0521196130

STATISTICS (ESE48E)

Department of Statistics
Faculty of Economics and Management

Lecturer: Ing. Tomáš Hlavsa, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course is aimed at familiarizing the students with the elementary statistical methods. The instruction is consistently performed using applied approach. Selection of relevant methods for the situation assessed is underlined, as well as results interpretation in the end. The methods included are illustrated by means of meticulously solved examples of real data analyses.

lectures:

1. Structure of the course. Elementary statistical concepts and symbols.
2. Elements of probability.
3. A random variable, its measures. Distributions of the discrete and continuous variables.
4. Basic statistical measures, statistical grouping.
5. Introduction to statistical estimation theory , point estimates of basic measures.
6. Interval estimates of basic measures.
7. Introduction to hypothesis testing. One sample tests.
8. Two samples tests.ANOVA.
9. Introduction to regression and correlation. Computation algorithms and application of the results. Simple linear regression and correlation.
10. Simple non-linear regression and correlation.
11. Hypothesis testing on the regression and correlation measures.
12. Time series, trend functions.

Seminars:

1. Elements of probability.A random variable, its measures. Normal probability distribution.
2. Basic statistical measures, statistical grouping.
3. Interval estimates.
4. Hypothesis testing.
5. Regression and correlation analysis.
6. Time series analysis.

Study literature:

1. TAYLOR, S. Business Statistics for Non-mathematicians, Palgrave MacMillan, 2007.368 p.ISBN 978-0-230-50646-6.
2. FIELD, A. Discovering Statistics Using SPSS. SAGE Publications, London, 2005. 779 s. ISBN 978-0-7619-4452-4.
3. FIELD, A. Discovering Statistics Using SPSS. SAGE Publications, London, 2005. 779 s. ISBN 978-0-7619-4452-4.
4. TRIOLA, M., F. Elementary Statistics using Excel. Pearson Addison Wesley, Boston, USA, 2007.915 s. ISBN 978-0-321-36513-5.

OPERATIONS RESEARCH AND SYSTEMS ANALYSIS (EAE58E)

Department of Systems Engineering
Faculty of Economics and Management

Lecturer: Ing. Igor Krejčí, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

To improve student skills in sovling problems by exact methods of operations and systems analysis with support of IT. To provide theoretical framework for mathematical modelling and operations and systems analysis.

Topics:

1. Introduction, aim of the course, basic terms. System science and definition of the system, classification of theoretical frameworks
2. Static and dynamic systems, deterministic and stochastic systems
3. System analysis methodology and systemic approach to problem solving. Connections - object, system, model and their analogy.
4. Types and phases of system approches, Hard and Soft OR, Soft system methodology.
5. Input-Output analysis - distribution equations and basic relations
6. Stochastic models - basic terms, queuing theory
7. Stochastic models - Markov chains
8. Simulation - theory and construction of simulation models
9. Aplication of discrete simulation models
10. Introduction to system dynamics
11. System dynamics models
12. Model systems; Synthesis of system methodologies and specific aplications

Seminars:

1. Linear programming - sensitivity analysis, SW support
2. Input-output analysis, Leontief's equations
3. Stochastic models - queuing theory
4. Stochastic models - Markov chains
5. Discrete simulation
6. System dynamics simulation

Study literature:

1. LAWRENCE, J. A., PASTERNACK, B. A. Applied Management Science Modeling, Spreadsheet Analysis, and Communication for Decision Making, 2. ed. New York Wiley & Sons, 2002. 649 s. ISBN 0-471-39190-5
2. ANDERSON, D. R., SWEENEY, D. J., WILLIAMS, T. A. An introduction to management science quantitative approaches to decision making. 10. ed. Cincinnati South-Western, 2003. 881 s. ISBN 0-324-14563-2.
3. MEADOWS, D. H. Thinking in Systems A Primer, 1. ed. White River Junction Green Publishing Company, 2008. 240 s. ISBN 978-60358-055-7
4. ŠUBRT, T. a kol. Ekonomicko matematické metody. 1. ed. Plzeň Aleš Čeněk, 2011. 351 s. ISBN 978-80-738-0345-2.

INFORMATION SYSTEMS - SAP (ETEA7E)

Department of Information Technologies
Faculty of Economics and Management

Lecturer: Ing. Miloš Ulman, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of the course is to acquaint students with basic principles of SAP S/4 HANA information system. The course will give a basic idea of the procedures for processing large-scale business processes from different areas of the production enterprise. The individual lectures and exercises are divided according to standard business processes, which are modular in terms of specific key areas. The basic control and operation of these processes will be practiced on hands-on examples during the seminars. The training curriculum will be based on the data set of the fictional model company Global Bike Inc., including educational materials for effective learning of the SAP S/4 HANA information system.

Topics:

1. Theoretical foundations of information systems
2. Introduction to SAP information systems
3. Navigation and control in the SAP system
4. Sales and Distribution - Organizing structure and ordering process in the SAP system
5. Material Management in the SAP system
6. Warehouse Management and Financial Accounting in the SAP system
7. Human Capital Management - master data, administration of users in the SAP system
8. Controlling and Reporting in the SAP system
9. SAP data management - SQL queries, triggers and procedures
10. Business Processes and Implementation of SAP information systems requirements
11. Implementation and SAP information systems
12. Maintenance, administration and troubleshooting of SAP information systems

ENTERPRISE INFORMATION SYSTEMS (NOT OPEN) ETE18E

Department of Information Technologies
Faculty of Economics and Management

Lecturer: Ing. Edita Šilerová, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The subject informs students about information system in practical application on side of client and on part of PC programm (database, process security). On lectures will be described some system and on seminars - computer laboratory - will be implemented analysis. On finish of semestre students create study about proposal of implementation of information system in organization.The course combines lectures with theoretical (practical) exercises under supervision, e.g. group work.

Topics:

1. Theory of Informations System, Enterprise Information System.
2. Analysis of Business Process
3. Information Security of Business Process
4. Organizational Scheme in Link on Implementing Information System
5. Computer-Based Information Systems - CBIS
6. Data Input, Process, Data Output
7. Examples of Modules.
8. Information System Reaction to Hierarchy in Management Process
9. Criteria for Evaluation Information Methods to Decision Support
10. Analytic Hierarchy Process (AHP)
11. Examples - Usage AHP Methods
12. Guarantee Functional Reliability
13. Supposed Development of System, Possibilities of Modifications and Complements
14. Preparation of Implementing Study

Seminars:

1. Characteristic of Enterprise Information System, System Decomposition
2. Modelling Tools, (Model Characteristic, its Application in Analysis)
3. Analysis Business Process
4. Examples AHP Method
5. Examples AHP Method
6. Proposal of Model Changing Enterprise Information System
7. Implementing Study - Evaluation - Assignment

Study literature:

1. Informační management. 1, Infomační požadavky moderního podniku [Sokolowsky, Peter, 2.] / Peter Sokolowsky. - 2. vyd.. - Praha Karolinum, 2002. - 142 s. ISBN 80-246-0500-7
2. Rosický, A. Jančarová, V. Návod do systémových věd. Praha, VŠE 1998. 145s. - ISBN 80-7079-939-1
3. Voříšek a kol. Aplikační služby IS/ICT formou ASP. Praha Grada 2004. 213 s. ISBN 80-247-0620-2

Bachelor in Informatics

Programme syllabi – Third year

UNIX OPERATING SYSTEMS (EIE69E)

Department of Information Engineering
Faculty of Economics and Management

Lecturer: doc. Ing. Arnošt Veselý, CSc.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Students will be introduced into basic concepts of Unix operating systems. Then the description of structure and function of the core of the Unix operating system will be presented. Further students will be introduced into system commands and into the basic command interpreter Bourne shell. On simple programs written in the C language the acquired knowledge of operating system structure and function will be verified.

Lecuters:

1. Introduction into Unix operating systems
2. System users
3. Shell bash
4. Programming in bash
5. Processes
6. Process synchronization
7. File systems
8. System commands
9. Process control
10. File management
11. Process sheduling and memory allocation
12. Network communication support

Seminars:

1. Basic system commands
2. Bash basics
3. Programming in bash
4. Commands for process management
5. System services for file management
6. System commands controled with regular expressions

Study literature:

1. Vesely A. Operating systems,CZU, 2005
2. Brown CH. SUSE Linux, O´Really, Cambridge, 2006.
3. Silberschatz A. Operating System Concepts, John Wiley, 2004.

WEB DESIGN (ETE3AE)

Department of Information Technology
Faculty of Economics and Management

Lecturer: Ing. Pavel Šimek, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of the course is to show current methods used for WWW presentation and WWW application development and maintenance with respect to development trends. Students will get to know with markup languages XHTML and HTML 5, CSS formatting features, right web accessibility rules, search engine optimization and other principles and methods that are used for web site development. Students will acquire broader overview and expertise in particular topics that will build theoretical foundations for their use in practice. After passing the course, learners will be able to effectively work with technologies that are subject of the course and moreover they will be able to select proper tool for specific case. Students will elaborate a set of particular tasks.

Topics:

1. Internet and web design.
2. (X)HTML, HyperText, validation, protocols, standards.
3. Cascading Style Sheets.
4. Web browsers and platforms, GRID, microformats.
5. HTML5, CSS3, JavaScript.
6. User experience.
7. Web content accessibility.
8. Websites, templates, Web Content Management Systems.
9. Search engines, SEO, SEM.
10. Server site dynamic technologies.
11. Graphic object for WWW.
12. Web analytics.

Seminars:

1. XTHML 1.1.
2. CSS 2.1.
3. CSS 2.1.
4. CSS3
5. HTML5
6. Presentation of projects and control of study tasks.

Study literature:

1. ŠIMEK, P.; VASILENKO, A. Content of presentations of Web design [online]. Praha [2012]. Available at http//moodle.czu.cz.
2. WORLD WIDE WEB CONSORTIUM. HTML & CSS [online]. Available at http//www.w3.org/standards/webdesign/htmlcss.
3. WORDL WIDE WEB CONSORTIUM. Web Content Accessibility Guidelines (WCAG) 2.0 [online]. Available at http//www.w3.org/TR/WCAG20/.
4. MAYER, E. A. CSS and Documents. Sebastopol, O'Reilly Media, 2012. 252 p. ISBN 978-1-4493-9903-0.
5. SCHMITT, CH.; SYMPSON, K. HTML5 Cookbook. Sebastopol, O'Reilly Media, 2012. 284 p. ISBN 978-1-4493-9679-4.
6. McFARLAND, D. S. CSS3 The Missing Manual, 3rd Edition. Sebastopol, O'Reilly Media, 2012. 656 p. ISBN978-1-4493-2594-7.
7. ERKOVIC, J. I. SEO Warrior. Sebastopol, O'Reilly Media, 2009. 496 p. ISBN978-0-596-15707-4.

BUSINESS ECONOMICS (EEEI2E)

Department of Economics
Faculty of Economics and Management

Lecturer: doc. Ing. Karel Tomšík, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course of Economic of Entrepreneurship aims to provide students with basic knowledge of business economics. Business theory and business surrounding are discussed on lectures, followed by discussion of concrete business analyses. Lectures provide theoretical background of economics of entrepreneurship, while practical application is conducted on seminars. Passing the course, students become familiar with basic principles of enterprises.

Topics:

1. Introduction to Economics of Entrepreneurship
2. Market Structure
3. Successful Entrepreneur
4. Common Mistakes in Entreprenuership
5. Business Plan
6. Pricing
7. Costs
8. Financing
9. Investment Decision
10. Financial Analysis
11. Wages
12. Non-profit Entreprenuership

Seminars:

1. Time Value of Money
2. Cost - Calculation
3. Investment Decision - Calculation
4. Wages - Calculation
5. Financial Analysis - Calculation
6. Project Defense

Study literature:

1. NELLIS, G. Joseph. Principles of Business Economics. 2nd edition. London Pearson Education Limited, 2006. 421pp. ISBN 978-0-273-69306-2.

2. WORTHING, Ian; BRITTON, Chris; REES, Andy. Economic for Business - Blending Theory and Practice. 2nd edition. London Pearson Education Limited, 2005. 542 pp. ISBN 0273685600.

3. SLOMAN, John; HINDE, Kevin; GARRATT, Dean. Economic for Business. 5th edition.London Pearson Education Limited, 2010. 742pp. ISBN978-0-273-72233-5.

4. HELFERT, A. Erich. Financial Analysis Tools and Techniques - A Guide for Modern Managers. New York McGraw-Hill. 485 pp. ISBN 0-07-1377834-0.

5. FRIDLOB, T. George; SCHLEIFER, L.F. Lydia. Essentials of Financial Analysis. New Jersey John Wilex&Son. 233pp. ISBN 0-471-22830-3.

FUNDAMENTALS OF ACCOUNTING (EUE42E)

Department of Trade and Accounting
Faculty of Economics and Management

Lecturer: Ing. Enikő Lőrinczová, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The subject focuses fundamental principles of financial accounting. An accounting cycle is introduced. Students are guided to record elementary transactions regarding long term assets, current assets, equity and liabilities and they are leads to prepare financial statements. Revenues and expenses are accented. The aim of the subject is to inform students about fundamental principles of financial accounting and to introduce an accounting cycle. The aim is also to quid students haw to record elementary transactions regarding long term assets, current assets, equity and liabilities with consequences to revenues and expenses; and haw to prepare financial statements.

Topics:

1. Financial accounting, users of accounting information, legal framework, accounting harmonization. Financial statements.
2. Balance sheet, transaction effects. Accounting cycle, accounting documents, accounts.
3. Income statement, profit/loss, expenses, revenues. Operating expenses and revenues.
4. Inventories - characteristics, purchased inventories method A (perpetual method),
   finished products, work in progress, animals.
5. Intangible and tangible long term assets - characteristics, acquisition, depreciation
   and liquidation.
6. Taxes - direct taxes and excise duty. Value added tax.
7. Employees payroll, personal income tax.
8. Financial expenses and revenues, extraordinary expenses and revenues. Accrual principle,
   accruals and deferrals.
9. Equity. Profit distribution, loss coverage.
10. Corporation income tax. Income statement structure.

Seminars:

1. Classification of balance sheet items. Balance sheet construction, transaction effects.
   Accounting documents, journalizing, accounts, posting.
2. Expenses and revenues recording. Operating expenses and revenues. Purchased inventories.
3. Finished products, work in progress, animals recording. Intangible and tangible long term assets
   acquisition, depreciation and liquidation recording.
4. Taxes - direct taxes and excise duty recoding. Value added tax recording and reporting to state
   authorities. Employees payroll transactions recording, personal income tax calculation.
5. Accruals and deferrals recording. Financial expenses and revenues, extraordinary expenses
   and revenues recording. Profit distribution, loss coverage. Corporation income tax calculation
   and recording.

Study literature:

1. Carmichael, D. R., and Graham, L. Accountants' Handbook, Volume 1 : Financial Accounting and General Topics (12th Edition).
2. Hoboken, NJ, USA: John Wiley & Sons, 2012. ProQuest ebrary. [Accessed 2015-07-20]. ISBN 978-1118252864.
3. Gangwar, S. and Gangwar, D.K. Fundamental Principles of Accounting. Mumbai, IND: Himalaya Publishing House, 2009. ProQuest ebrary. [Accessed 2015-07-20]. ISBN 978-8184884517.
4. Murthy, G. Financial Accounting. Mumbai, IND: Himalaya Publishing House, 2009. ProQuest ebrary. ISBN 978-8184882995.
5. STÁROVÁ, Marta. Accounting Theory with Practical Applications. Česká zemědělská univerzita v Praze. 2015. 1.vyd. ISBN 978-80-213-2588-3.

INTERACTION DESIGN (EIE96E)

Department of Information Engineering
Faculty of Economics and Management

Lecturer: Ing. Josef Pavlíček, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Integraction design is following subject for Human computer interaction. The graduate gains deep practical skill in the preparing, scheduling, performing of UI Tests. Other gain skills: evaluation of UI Study, the UI lab use, graphical and ergonomic perception.

Lectures:

1. Introduction to Interactive Design
2. Analyze the requirements of the client in the context of the given workflow and business case, prioritize the demonstration and familiarize with the tools for its control
3. Planning the test based on the requirements of the sponsor
4. Usability study and interview management
5. Test preparation: Setting up and configuring the laboratory
6. Selection of suitable participants
7. Selection of suitable participants
8. Definitions of errors found, proposals for their correction
9. Working with the laboratory
10. Testing in groups
11. Report Format UI Study
12. Design and management of independent work

Seminars:

1. Introduction to Interactive Design
2. Usability study and interview management,Test preparation: Setting up and configuring the laboratory
3. Selection of suitable participants
4. Working with the laboratory
5. Report Format UI Study

Study literature

1. Jakob Nielsen’s Alertbox, April 14, 2003 Paper Prototyping
2. Josef Pavlicek, Human computer interaction (materials)
3. Josef Pavlíček, Přednášky a cvičení z Interakce člověk počítač

SOFTWARE ENGINEERING (EIEA3E)

Department of Information Technology
Faculty of Economics and Management

Lecturer: Ing. František Kožíšek, MSc, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of the course Software Engineering is to teach students the basic methodological instruments for solving tasks of arrangement and management of complex objects, processes and other items for information support of institutions. The course will provide a basic view about approaches and organizing in implementation and utilisation of information systems. The types of the system life-cycle, decomposition of the IS project into phases planning of the information strategy, analysis, design and implementation, as well as the techniques used in individual phases will be explained in the lectures.

Topics:

1. Aim of the course, reasons for failures in IS implementation, hierarchical diagram, entity-relationship diagram (ERD).
2. Data-flow diagram (DFD), structure chart (SCH).
3. Relationship of the information, software and systems engineering
4. Life-cycle of building information systems
5. Organization and management of the information system project
6. Information strategy planning of the institution
7. Institution framework model
8. IS requirements analysis, methods and instruments of an analysis (questionnaire, interview, JAD
9. Practice and principles of the working process rebuilding
10. Resistance to the change, launching of the organisational change

Seminars:

1. Case tool MetaEdit+, examples for ERD.
2. Examples and exercising of the data-flow diagrams
3. Examples for ERD and DFD, project assigning
4. Test, works on the project
5. Works on the project, pass-eligible

Study literature:

1. P.O. Flaatten a kol. Foundations of Business Systems. Dryden Press, 1991
2. Martin Information Engineering 1.-3. díl Prentice Hall, 1991
3. J. Martin a C. Mc Clure Structured Techniques. Prentice Hall, 1988
4. J. Martin Action Diagrams. Prentice Hall, 1989
5. S. Mc Menamin a J. Palmer Essential Systems Analysis. Prentice Hall, 1984
6. Sommerville, I. Software Engineering, Addison-Wesley 2011

PROJECT MANAGEMENT METHODS (EAE61E)

Department of Systems Engineering
Faculty of Economics and Management

Lecturer: doc. Ing. Tomáš Šubrt, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course deals with the basic mathematical models used in modern project management. In the first part, the students spend time analyzing the different types of projects - deterministic, stochastic, fuzzy. In the second part the focus is on the resource and cost analysis and optimization of resource usage. The last part is devoted to methods like Critical Chain and Critical Mass.

Lectures:

1. Introduction to project management (PM). Project preliminary activities and preparation of tasks.
2. System approach to PM, project from the system point of view.
3. Overview of exact tools and methos for PM.
4. Mathematical background of PM I - deterministic projects
5. Mathematical background of PM II - projects with deterministic structure and stochastical duration.
6. Mathematical background of PM III - projects with stochastic structure.
7. Mathematical background of PM IV - introduction to fuzzy approach in PM.
8. Resource management I - introduction and basic principles.
9. Resource management II - resource conflicts, resource leveling.
10. Project costs.
11. Tracking progress, risk management in PM.
12. Theory of constraints in PM practical use.Critical Chain method.

Seminars:

1. Knowledge repeating. Basic PM problems.
2. Mathematical methods for project management CPM, PERT.
3. Mathematical methods for project management GERT, MPM.
4. Project simulation in Excel, resource analysis.
5. MS Project - basic overview.
6. MS Project, Individual projects presentation.

Study literature:

1. Kerzer H.Project Management A system Approach to Planning, Scheduling and Controlling. John Wiley & Sons, New York, 2000
2. Goldratt, E.M. Critical Chain, North River Press Publishing, Great Barrington, Massachusetts, 1997.
3. Leach, L. P. Critical Chain Project Management, Artech House, 2000

STATISTICAL SOFTWARE SYSTEMS (ESE52E)

Department of Statistics
Faculty of Economics and Management

Lecturer: Ing. Tomáš Hlavsa, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

This course provides an overview of how to use the user-friendly interface of selected statistical programme package (SAS) to perform common statistical analyses. The emphasis is on the practical aspects of the statistical methodology, with details of how to explore statistical data and analyze data by standard statistical techniques.

Topics:

1. Creating SAS data sets from raw data.
2. Modifying data sets.
3. Describing and summarizing data.
4. Exploratory data analysis using SAS.
5. Simple inference for continuous variables.
6. Testing for independence in contingency tables. Measures of association.
7. Analysis of variance. Kruskal - Wallis test.
8. Multiple comparison procedures.
9. Simple linear regression and correlation. Checking linear regression model assumptions.
10. Multiple regression. Stepwise regression routines.
11. Principal component analysis.
12. Cluster analysis techniques.

Seminars:

1. Creating data sets. Examining data. Basic procedures of exploratory data analysis.
2. Basic inference for continuous variables.
3. Analysis of variance. Multiple comparison procedures.
4. Simple regression and correlation. Regression diagnostics - basic diagnostic tools.
5. Multiple linear regression model. Stepwise methods.
6. Analysing multivariate data. Principal components.

Study literature:

1. DELWICHE, L. D., SLAUGHTER,. S. J. The Little SAS Book, SAS Publishing, Cary, NC, 2003. ISBN 978-1-59-047333-7.
2. MULLER, K., FETTERMAN, B. Regression and ANOVA An Integrated Approach Using SAS Software, SAS Institute, 2012. ISBN 978-1580258906.
3. RENCHER, A. Methods of Multivariate Analysis, Wiley Publishing, New York, 2002. ISBN 978-0-47-141889-4.
4. NISBET, R., ELDER, J., MINER, G. Handbook of statistical analysis and data mining applications, Academic Press, 2009. ISBN 978-0-12-374765-5.
5. SULLIVAN, M. Fundamentals of Statistics, Pearson Prentice Hall, 2008. ISBN 978-0-13-156987-2.

Bachelor in Business Administration

Programme syllabi

Bachelor BA PROGRAMME SYLLABI

FIRST YEAR

AUTUMN SEMESTER

SPRING SEMESTER

SECOND YEAR

AUTUMN SEMESTER

SPRING SEMESTER

THIRD YEAR

SPRING SEMESTER

Bachelor in Business Administration

Programme syllabi – First year

MATHEMATICS EAE68E

Department of System Engineering
Faculty of Economics and Management

Lecturer: Ing. Igor Krejčí, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The course covers integration of functions of one variable, linear differential equations, use of integrals and concludes with a brief discussion of infinite series. Calculus is fundamental to many scientific disciplines including physics, engineering, and economics. Topics include: Definite and Indefinite Integration. The Fundamental Theorem of Calculus. Applications to Geometry: Area, Volume, and Arc Length. Applications to Science: Average Values, Work, and Probability. Techniques of Integration. Approximation of Definite Integrals, Improper Integrals.

After completing the course, students should have developed a clear understanding of the fundamental concepts of single variable calculus and a range of skills allowing them to work effectively with the concepts. Graduates will understand the basic mathematical concepts, terms and procedures used for solutions of various technical, economical and societal problems. The subject is also a prerequisite for other subjects in the curriculum.

Lectures:

1. Introduction to the Set Theory
2. Relations, Ordering, Functions
3. Graph Theory
4. Basic Functions
5. Function of Single Variable
6. Limits and Derivatives of Function
7. Course of Function
8. Function in Economics
9. Linear Algebra and Vector Space
10. System of Linear Equations I
11. System of Linear Equations II
12. Practical application of SLE

Seminars:

1. Set Theory and Relations
2. Graph theory models
3. Limits and Derivatives of Function
4. Course of Function - Practical Applications
5. Matrix operations, Jordanian Elimination
6. System of Linear Equations

Study literature:

1. Stewart, James (2009) Calculus. Metric International Version Calculus, 6ed., Brooks/Cole. ISBN 13: 978-0-495-38362-8.
2. Stewart, James (2012) Single Variable Calculus. 7ed., International Edition, Brooks/Cole, ISBN 13: 978-0-538-49885-2.
3. Hoffmann, L. D., Bradley, G. L.: Finite Mathematics with Calculus, McGraw-Hill, 1995, ISBN 0-07-029325-X.
4. Eric W. Weisstein: MathWorld - A Wolfram Web Resource, http://mathworld.wolfram.com.

SCIENCE, PHILOSOPHY AND SOCIETY (EHEA7E)

Department of Humanities
Faculty of Economics and Management

Lecturer: Daniel Rosenhaft Swain, Ph.D., MA
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

This is an introductory philosophy course aimed in particular at students of business and economics. The course aims to introduce students to philosophical concepts, questions and themes that will help them reflect on and develop their studies in other fields, as well as introducing some important figures in the history of philosophy. The course is broadly divided into three sections, focusing first on the philosophy of knowledge, then later philosophy of economics and social science, and then finally the ethics of the market. In the course of this students are introduced to various key concepts (e.g. philosophical scepticism, the fact/value distinction, induction and deduction, utilitarianism and deonotology) and to the ideas of important historical (e.g. Socrates, Plato, Aristotle, Descartes, Kant, Marx, Weber) and contemporary (e.g. Michael Sandel, Deirdre McCloskey, Anne Phillips, Iris Marion Young) thinkers. Lectures are complemented by discussion seminars on connected themes, and also with regular readings and/or audiovisual presentations.

Lectures:

1. Introduction and Overview of the Course
2. Knowledge and Skepticism
3. Plato and Aristotle on Wisdom in Politics
4. Fact and Value
5. Induction and Deduction
6. Natural and Social Science
7. Realism in Economics
8. Objectivity in Economics
9. Morality and the Market - Core concepts
10. Commodification
11. Exploitation

Seminars:

1. "The unexamined life is not worth living"
2. How do we know what we know?
3. Should we be ruled by experts?
4. Can we derive an ought from an is?
5. Can we trust inductive knowledge?
6. What is the difference between natural and social sciences?

7. Should economic theories aim to be realistic?
8. Is economics an objective science?
9. How do we decide what is good and bad?
10. What should we be allowed to buy and sell?
11. When is it acceptable to use someone to make a profit?
12. Essay advice and preparation

Study literature:

1. Brennan, J., and Jaworski, P., Markets Without Limits, Routledge, 2015.
2. Hausman, D., ed., The Philosophy of Economics: An Anthology, Cambridge University Press, 2012.
3. Irwin, W., ed., Philosophy and the Matrix, Open Court publishing, 2002.
4. Okasha, S., A Very Short Introduction to the Philosophy of Science, Oxford University Press, 2002.
5. Plato, The Apology
6. Sandel, M., What Money Can't Buy: The Moral Limits of Markets, Farrar, Straus and Giroux, 2013.
7. Satz, D., Why Some Things Should Not Be for Sale, Oxford University Press, 2010.
8. Sedláček, T., The Economics of Good and Evil, Oxford University Press, 2013.

AGRICULTURAL SYSTEMS I (AHA29E)

Department of Humanities
Faculty of Economics and Management

Lecturer: prof.Ing. Pavel Tlustoš, CSc.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The subject gives to students a general overview about different farming systems following specific conditions and about factors affecting crop production and its quality including nowadays perceptions of landscape countryside. The main goal of subject is to give to students an ability to recognize different farming systems related to different environmental and site conditions, and to understand specific requirements of individual crops and their role in the landscape sustainability.

Lectures:

1. Structure and functions of agroecosystems.
2. Soil fertility, and their parameters
3. Factors affecting plant growth and yield formation
4. Importance of nutrients for plant development and food quality
5. Environmental conditions and farming systems in the Czech Republic
6. Environmental factors affecting crop production, agricultural production areas
7. Crop rotations, crop sequences, and forecrop value of main crops.
8. Soil tillage and basic equipment used in soil cultivation.
9. Weeds, pests, diseases, crop protection methods, and integrated pest management.
10. Cereal crops – importance and position in crop production. Requirements for growing technology.
11. Root crops – importance and position in crop production. Requirements for environment, growing technology.
12. Oil crops - importance and position in crop production. Requirements for environment, growing technology.
13. Medicinal, aromatic and spicy plants – main groups, importance, production, quality evaluation. Plant drugs..
14. Risks of contaminants spread in the environment for the quality of crops.

Seminars:

1. Introduction to seminars, rules and main topic. Objectives of students presentation. Main steps of project development.
2. Main soil parameters, their evaluation, principles of soil tests.
3. Sources of organic matter in the soil, organic matter turnover.
4. Estimation of nutrients rates applied into the soil, regulation of nutrient application.
5. Agricultural regionalization (production areas, LFA, vulnerable areas), LPIS.

6. Soil tillage (types, tools, conventional and minimalization practices), crop rotations.
7. Plant protection – definitions. Important pests, diseases and weeds in Czech.
8. Cereal crops – dividing, discriminating digits, quality evaluation.
9. Root crops and oil crops – dividing, discriminating digits, quality evaluation.
10. Medicinal, aromatic and spicy plants – discriminating digits, degustation of choiced tea drinks.
11. Individual project presentation, evaluation of speakers.
12. Individual project presentation, evaluation of speakers.
13. Individual project presentation, evaluation of speakers.
14. Evaluation of semestr activities, group discussion, creditation.

Study literature:

1. Martin, J.H., Waldren, R.P., Stamp, D.L.(2006) Principles of Field Crop Production. Pearson Prentice Hall.
2. Lichtfouse E., Navarrete M., Debaeke, P., Souchére V., Alberola, C. (eds.) Sustainable Agriculture. Springer, 2009, 920 p.
3. Snapp, S., Pound B. (eds.) Agricultural Systems. Agroecology & Rural innovation for development. Elsevier, 2008, 386 p.
4. Subrahmanyam N. S., Samburty A. V. S. S. (eds.) Ecology (2nd Edition). Alpha Science, 2006, 670 p.
5. Gliessman S.R. Agroecology The ecology of sustainable food systems (2nd edition). CRC Press, 2006, 408 p.
6. Petr, J. et al. (1991) Weather and Yield. Elsevier, Amsterdam, 288 p.

INFORMATION AND COMMUNICATION TECHNOLOGIES (ETEB3E)

Department of Information Technologies
Faculty of Economics and Management

Lecturer: Ing. Miloš Ulman, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course combines theoretical and practical introduction to the most important areas of the computer science - hardware, operating systems, programming languages, data structures and some application software with emphasis on spreadsheets, networks and network services. The practicals are held in the form of informal group work on desktops in PC labs at local and network mode. There is one practical test at the end of semester. Students get access to prepared exercise sheets stored on server and work with them individually during the practical seminars.

Lectures:

1. Information science,, information society and ICT development
2. Computer architecture and principles
3. Current standards of computer hardware
4. Software classification, operating systems
5. Current standards of software
6. Algorithmand s software development
7. Information systems
8. Global information world - computer networks
9. Global information world - Internet
10. Presentation on the Internet
11. Computer security (antivirus,firewall, etc.)
12. ICT in public administration, ICT and environment

Seminars:

1. Organisational, check-in, LMS Moodle
2. Microsoft Word - Styles
3. Microsoft Word - Styles, Figures, Sections
4. Microsoft Word - Tables
5. Microsoft Word test
6. Power Point presentation + speech
7. Microsoft Excel - Basics
8. Microsoft Excel - Advanced formulas
9. Microsoft Excel - Filters, Smmaries and Charts
10. Microsoft Excel - Pivot table
11. Microsoft Excel - test
12. Check-out

Core literature:

1. WILLIAMS, Brian K.; SAWYER, Stacey C. Using Information Technology. 10th ed. Complete. New York, NY: McGraw Hill. 2013. 576 p. ISBN 978-0-07-131800-6.
2. O´LEARY, Timothy J.; O´LEARY Linda I. Computing Essentials 2013. Making IT work for you. New York, NY: McGraw Hill. 2013. 533 p. ISBN 978-0-07-131753-5.
3. Studijní materiály kurzu Informatics dostupné z http://moodle.czu.cz

ESSENTIALS OF JURIDICAL SCIENCES (EJE41E)

Department of Law
Faculty of Economics and Management

Lecturer: Mgr. Jan Chudoba
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of this course is to give a broad and general introduction to the concept of law and legal methods as well as to present some of the most critical and/or practical legal issues. The lectures will be followed by seminars (study groups) where some of the pertinent aspects will be discussed and a few examples will be dealt with in detail. At the end of the course there will be a closed book written exam (a multiple choice test) and an oral exam for which both credit and a grade will be awarded. In order to be allowed to sit for the exam, the students must attend seminars (study groups) and participate therein.

Lectures:

1. Introduction.
2. The definition, nature, objectives and functions of law, legal systems.
3. Family of legal systems.
4. Types and categories of law.
5. International law.
6. EU law and institutions.
7. Court of Justice of EU and the Case-law.
8. Public law – Constitutional law, Administrative law. Criminal law and Labour law.
9. Private law I. – Civil law, Commercial law, Intellectual property law.
10. Private law II. – Common-law perspective (property, contracts, torts).
11. Procedural law I. – Adjudication. Procedural law II. – Mediation, Arbitration.
12. Law in the globalized society – Cross-border transactions, Business Forms, Global competition (Antitrust, Unfair Competition), AML, Bribery, Embargos. Review.

Seminars:

1. The definition, nature, objectives and functions of law, legal systems.
2. Family of legal systems.
3. Types and categories of law.
4. International law.
5. EU law and institutions. Court of Justice of EU and the Case-law.
6. Substantive law - Public law, Private law. Procedural law.

Study literature:

1. Collier, J.G. (1999). Conflict of laws. Cambridge: Cambridge University Press.
2. Dobson, P. (1997). Charlesworth's business law. London: Sweet and Maxwell, Ltd.
3. Merryman, J. H. (1985). The civil law tradition: an introduction to the legal systems of Western Europe and Latin America. Stanford: Stanford University Press.
4. Szyszczak, E. and Cygan, A. (2005). Understanding EU law. London: Sweet and Maxwell, Ltd.
5. Štědroň, B., Lang, J. and Jansa, V. (2008). Fundamentals of Law: Workbook. Prague: Česká zemědělská univerzita.
6. Štědroň, B. (2007). Fundamentals of law. Prague: Česká zemědělská univerzita.
7. Štědroň, B. (2010). Introduction to law. Prague: Česká zemědělská univerzita.
8. Wyatt, R. (2006). Check your English vocabulary for law : [all you need to improve your vocabulary]. London: A & C Black.

INTRODUCTION TO STUDY (EXE31Z)

Department of Economics
Faculty of Economics and Management

Lecturer: Ing. Bohuslava Boučková, CSc.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 1.0
Assessment:
Marking scale:
Contact hours: 8

Objective and general description:

Introduction to Study introduces students to the basic rules and procedures for study at the Economic Faculty. In addition, students get familiar with the environment and practices of CULS. In this subject students are introduced to the Study and Examination Regulations, safety procedures, internal rules of the faculty, information systems and the key contact persons.

Lectures:

1. To acquaint students with the environment CUA and information systems, especially LMS Moodle, where students can find all other information required for completing the course.

Study literature:

1. Higher Education Act 111/1998 Coll.

ENGLISH FOR ACADEMIC PURPOSES (ELX67Z)

Department of Languages
Faculty of Economics and Management

Lecturer: BA Edmond Grady
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 2.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 24

Objective and general description:

The course is interactive. Lectures and seminars are based on specialised textbooks and articles from current English language periodicals which are used for further development of language skills including:

Expansion of academic vocabulary (40 words per week, with practical examples), Review of grammar, Discussion, Conversation, Debate, Formal writing format. All correction of written and oral presentations is done on a one-to-one basis with general explanations of common errors.

Seminars focus on mastering correct pronunciation in a mixed group of Erasmus students, reading and writing skills and discussing essay topics. Structuring of essays is also revised.

Students will learn the following skills:

Graduates will have **knowledge and understanding** of the background and history of the English language, its influence on other languages, and of its importance in academic and scientific communication.

They will also have increased knowledge of the common as well as specialised terms and phraseology used in English within the university environment, with emphasis on their subject areas. The initial purpose of the course was to assist them in following the lectures in other subjects presented in English.
Graduates will be able to apply their knowledge and understanding to writing structured essays at university level and reports at workplace level, and their English language **skills** to holding discussions on specialised topics at workplace.

Study literature:

1. Mounsey, Chris (2002). Essays and Dissertations, Oxford University Press, pp. 128.
2. Bryson, Bill (1990). Mother Tongue, Penguin Books, pp. 270.
3. Chilver, Joseph (1996). English for Business [for reading articles only], DP Publications, pp.304.
4. English language publications such as *The Economist*, *Prague Post* and other newspapers,

PHYSICAL EDUCATION (RTX16Z)

Department of Physical Education

Lecturer: PaedDr. Dušan Vavrla, Mgr. Michal Makovský
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 2.0
Assessment:
Marking scale:
Contact hours: 48

Objective and general description:

The compulsory course of physical education (PE) is taught in the first and second semesters. Before the students start all, of them have to take a performance test of swimming. Those who pass the test can choose a sport from the following list of sports: voleyball, basketball, floorball, soccer (training of basic skills, learning rules, improving playing the game), aerobics (rhytmic aerobic exercise including stretching and strength training routines), Tai-Chi (exercises based on Chinese meditation and martial art), gym – strength training (exercise is focused on all basic types of weight training and stretching, concentrated on correctly performing each drill). Students who do not pass the test (non-swimmers and weak swimmers) have to sign in for the swimming course where they are taught the basic swimming skills, breaststroke, backstroke and crawl. They also learn the basics of diving, water polo and some funny water games. Part of the swimming course is an introduction to the basic of water safety.
Students with physical limitations are included in physical training education within an individual programme, reflecting their state of health.

Sports:

1. Indoor swimming pool 25 m.
2. Large gym for ball games.
3. Small gym for ball games and aerobics.
4. Fitness.
5. Grass football pitch.
6. Small football pitch with artifical turf.
7. Clay volleyball courts.
8. Beach volleyball court.
9. Clay tennis court.
10. 3 tennis courts with artificial turf.
11. Tennis hall.
12. Multipurpose field with artificial surface (basketball, volleyball).

MATHEMATICAL METHODS IN ECONOMICS I EAED8E

Department of System Engineering
Faculty of Economics and Management

Lecturer: doc. Ing. Ludmila Dömeová, CSc.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Subject illustrates the basic methods and techniques of mathematical modelling for solving of complex problems in the practice. Using of linear programming and examples the subject illustrates: a) construction of a mathematical models of a practical problems, b) solutions of models by simplex method, or by similar derivate algorithms, c) analysis of the model and analysis of the results for their practical use. Basics knowledge of linear programming and relevant mathematical models makes possible the graduates to continue the study of other more complex models and use the model approach to solve complex problems in their future businesses.

Lectures:

1. Managerial decision making
   Mathematical modelling
2. Linear programing - basic terms, structure, aplication
3. Simplex algorithm
4. Analysis of the optimal solution
5. Graphical solution
6. Sensitivity analysis
7. Practical aplication of the linear optimization model
8. Transportation problem
9. Assignment problem
10. Travelling salesman problem
11. Structured and unstructured decision making and its quantitative support
12. Detrministic and stochastic decision making

Seminars:

1. Mathematical model structure, types of variables
2. Construction of the linear programming model
3. Simplex algorithm
4. Analysis of the optimal solution
5. Graphical solution
6. Sensitivity analysis

7. Practical examples
8. Transportation problem - solution of examples, SW
9. Assignment problem
10. Travelling salesman problem
11. SW tool for the optimization modles
12. Students projects evaluation

Study literature:

1. DeLurgio S.A.: Forecasting Principles and Applications, IRWIN McGRAW-HILL BOOK COMPANY, USA 1986
2. McQuariie D.A.:Mathematical Methods for Scientists and Engineers,University of Oclahoma, USA, 2003
3. Marakas G.M.: Decision Support Systems in the 21 st Century,Pearson Education, USA, 2003

PSYCHOLOGY OF PERSONALITY AND COMMUNICATION (EPEC9E)

Department of Psychology
Faculty of Economics and Management

Lecturer: Mgr. Daniel Messele Balcha
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Psychology as a basic subject is a prerequisite for further study of specialized subjects such as marketing and business control. It helps us to understand the factors affecting the development of human character in society, it conduces to self-knowledge and widens the knowledge in humanities. The aim of the subject is to provide knowledge of general psychological terms, regularities and theories, especially from cognitive and social psychology, interpersonal communication, motivation and personality. Students benefit from this knowledge in seminars in which they will develop practical skills for their future roles and positions thanks to active social learning.

A student of the course has to master the prescribed study materials and prove she has acquired the knowledge by taking part in the system Moodle tests. A student is obliged to take part in the tutorials (seminars). Based on this the student will be credited. The examination will be carried out as a written test or an oral test. In some cases the written and oral test might be combined. The written test consists from testing two types of knowledge. The student's knowledge of technical terms of the corresponding knowledge area is tested, and after that she is asked to answer 3 non-trivial questions in a complex enough and meaningful way. The verbal test consists in answering three randomly selected essay questions verbally.

Lectures:

1. Basic disciplines of psychology.
2. School of psychology.
3. Psychological methodology.
4. Psychological dimensions of the development.
5. Psychological processes.
6. Personality traits.
7. Abilities (creativity, intelligence).
8. Motivation.
9. Stress.
10. Social cognition.
11. Social groups.
12. Social behaviour.

Seminars:
1. Interview.
2. Self-perception.
3. Personal growth.
4. Training of individual creativity; Brainstorming.
5. Bodily constitutions and quick assessment of temperaments.
6. Social interaction.

Study literature:
1. GROSS, R. Psychology. Oxon: Hodder Arnold, 2009. 1007 s. ISBN 0-340-90098-9.
2. HAYES, N. Principles of Social Psychology. Hove: Psychology Press, 2005. 168 s. ISBN 0-86377-259-5.

AGRICULTURAL SYSTEMS II (ALE02E)

Department of Economics
Faculty of Economics and Management

Lecturer: Ing. Helena Chaloupková Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of this subject is to give fundamental knowledge on animal keeping, ethology, welfare and animal production. Main part is based on a general overview followed by specialized section. Lectures contain following themes: general zootechny, introduction to ethology, anatomy and physiology. General part is followed by lectures on individual species and breeding of main farm animals.

Lectures:

1. Contribution of domestic animals, domestication
2. Zootechnical taxonomy, gene resources,pedigree and herdbook, body conformation, branding of animals..
3. Ecological aspects of animal breeding, ecological livestock farming..
4. Introduction to animal ethology.
5. Applied ethology of horses.
6. Applied ethology of cattle.
7. Applied ethology of pigs.
8. Animal welfare.
9. Physiology of animals - stress.
10. Physiology of animals - reproduction and lactation.
11. Dairy cattle and milk production.
12. Pig and poultry production.
13. Aquaculture - fishery management.
14. Zoorehabilitation.

Seminars:

1. Breeds of domestic animals, domestication changes, type traits in livestock and pets, body condition.
2. Animal ethology methods and animal welfare assessment
3. Excursion - Practical aspects of ethology in ZOO Prague
4. Excursion - Practical aspects of horse keeping
5. Practical aspects of cattle keeping and pig breeding - school stable
6. Applied ethology of cattle.
7. Applied ethology of pigs

8. Zoorehabilitation
9. Practical fishery
10. Presentation of students projects

Study literature:

7. Pond, W.G., Bell, A.W.: Encyklopedia of Animal Science. M.Dekker, New York,2005, ISBN 0-8247-5496-4.
8. Pond, K., Pond, W.G. : Intordoction to Animal Science. J.Wiley and Sons. Inc. New York, ISBN 0417-17094-1.
9. Kilgour R., Dalton C., 1984: Livestock Behaviour-a practical guide. Granada Publ. ISBN 0-246-11906-3.
10. Jensen, P.: The Ethology of Domestic Animals-An Introductory Text.CABI Publishing, 2002, ISBN 0 85199- 602-7.
11. Webster, J.: Animal Welfare-a cool eye towards eden. Blackwell Science Ltd. London, 1994,ISBN 0-632-03928 -0.
12. Kolektiv, 2002 Concepts in Animal Welfare, WSPA,London, University Of Bristol.

INTERNET TECHNOLOGIES (ETE4BE)

Department of Information Technologies
Faculty of Economics and Management

Lecturer: Ing. Miloš Ulman Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of the course is to explain important principles of current information and communication technologies with focus on Internet technologies and to project anticipated trends in the field. Students will acquire broader overview and expertise in particular topics that will build theoretical foundations for their use in practice. After passing the course, learners will be able to effectively work with technologies that are subject of the course and moreover they will be able to select proper tool for specific case, system, sector, field etc. Students will elaborate a set of particular tasks. Further advancing professional topics on ICT are subject matter of the course Information systems.

Lectures:

1. Database systems
2. Data management
3. Information and communication technologies and IS
4. Projecting of IS
5. Information systems and application on the WWW platform
6. Graphics and multimedia
7. Search engines and searching of information
8. Security of IS and ICT
9. Mobile ICT
10. Communication and ICT
11. E-business
12. Social network and media

Seminars:
1. Databases
2. Databases
3. Databases
4. HTML
5. HTML
6. Control of study tasks, pass eligible

Study literature:
1. O´LEARY, Timothy J.; O´LEARY Linda I. Computing Essentials 2013. Making IT work for you. New York, NY: McGraw Hill. 2013. 533 p. ISBN 978-0-07-131753-5.
2. Study materials for Information Technologies course at http//moodle.czu.cz
3. Wikipedia. [on-line]. Dostupné z WWW: http://www.wikipedia.org
4. WATSON, R. T. Data Management Databases & Organizations. San Francisco, John Wiley & Sons, Inc., 2006. ISBN-13 9780471715368.
5. DATE, C. Database in Depth. Sebastopol, O'Reilly Media, 2005. ISBN 978-0-596-10012-4.
6. TURBAN, Efraim et al. Electronic commerce 2012: a managerial and social networks perspective. Pearson, 2011. 792 s. ISBN 978-027-3761-341.
7. Using Information Technology. Information center. [on-line]. Dostupné z WWW: http://www.mhhe.com/uit10e
8. Computing Essentials 2013. Companion Web site. [on-line]. Dostupné z WWW:http://www.computing2013.com/

COMMERCIAL AND CIVIL LAW (EJE42E)

Department of Law
Faculty of Economics and Management

Lecturer: Mgr. Michal Reichert, DiS.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of this course is to provide an extensive exposure to the Private law area, predominantly to the Civil and commercial law. The general principles and concepts along with the appropriate methodology will be followed by the study of the applicable Civil and commercial law within continental law family as well common law family. The lectures will be followed by seminars (study groups) where some of the pertinent aspects will be discussed and a few examples will be dealt with in detail.

The goal of the course unit is to give the students the basic information about legal system according to an accepted and discussed plan. The plan will be adapted to any changes in the law. The main law documents and the system of the law is discussed.

At the end of the course there will be a closed book written exam (a multi-choice test) and a short oral exam for which both credit and a grade will be awarded. In order to be allowed to sit for the exam, the students must attend seminars (study Groups) and successfully complete the assignment – a small research project regarding the definition of law or of the legal system.

Lectures:

1. The definition, nature, objectives and functions of law, legal systems . Family of legal systems.
2. Types and categories of law. Public law v. Private law.
3. Civil law – continental law perspective.
4. Civil law – common law perspective.
5. Commercial law – subjects, enterprise, companies, corporations.
6. Commercial law – competition – antitrust and unfair competition.
7. Contracts.
8. Extracontractual obligations – delicti/torts.
9. Procedural aspects – dispute resolution and enforcement of Civil and commercial law.
10. EU law.
11. Projects and review.
12. Projects and review.

Seminars:

1. Continental law v. Common law.
2. Public law v. Private law.
3. Civil law – subjects, family, inheritance.
4. Commercial law – businessman, entrepreneurs, enterprise.
5. Commercial law – companies and corporations.
6. Procedural aspects.

Study literature:

1. MacGregor Pelikánová, Radka. Introduction to law for business. 1st Edition. Ostrava, CZ: Key Publishing, 2012, ISBN 978-80-7418-137-5 .. MacGregor Pelikánová, Radka. Introduction to law for business. 1st Edition. Ostrava, CZ: Key Publishing, 2012, ISBN 97
2. Barnes, A. James, Dworkin, Terry Morehead, Richards, Eric L. Law for Business. 11th edition. New York, USA : McGraw-Hill Irwin, 2012. ISBN 978-0-07-131457-2.
3. Honoré, Tony. About law: a short introduction. Oxford, UK : Oxford University Press, 2005, ISBN 0-19-876387-5.
4. Partington, Martin: Introduction to the English Legal System – Law and Society: the Purposes and Functions of Law. 3rd edition. Oxford, UK : Oxford University Press, 2006. ISBN 978-0199278299.

ENGLISH FOR BUSINESS PURPOSES (ELX69E)

Department of Languages
Faculty of Economics and Management

Lecturer: BA Edmond Grady
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 24

Objective and general description:

The course is interactive and there are no lectures. Seminars are based on specialised textbooks and articles from current English language business periodicals which are used for further development of language skills including: expansion of business vocabulary (40 words per week, with practical examples), Review of grammar, Discussion, Conversation, Debate, Formal writing format. All correction of written and oral presentations is done on a one-to-one basis with general explanations of common errors. In Business English the students are familiarized with business settings in which they will be expected to use English. They will be taught the basic skills to enable them to operate effectively in these situations.

The course takes one semester. It is concluded by credit (zapocet for active attendance 75% and active participation, and passing a mid-term test) and a combined oral and written examination at the end of the semester.
The extent of the written examination is determined by the lecturer during the semester.

Lectures:

1. Comprehension and interpretation of written reports and other business documents
2. Discussion and verbal presentation of findings
3. The modification of business information for use in specific situations
4. Analysis of graphically and numerically displayed information
5. Summarizing and precise writing
6. Writing minutes of meeting
7. Composition of letters, memoranda, reports, etc.
8. Formal writing format
9. Creative writing
10. General explanation of common errors etc
11. Further development of language skills

Seminars:

1. The Administrative Function
2. Human Resource Management
3. Finance and Accounting

4. The Production Function
5. Decision Making
6. Marketing and the sales Function
7. Debate
8. International marketing
9. Formal writing format
10. Transport and distribution
11. Creative writing
12. Business meeetings
13. General explanation of common errors etc
14. Personnel management
15. Further development of language skills
16. Government and business
17. Modifying business informations.

Study literature:

1. CHILVER, J., English for business A functional approach. DP Publications, London, 1992. 304 p. ISBN 1-873981-10-4.
2. MACKENZIE, I. English for business A course for business studies and Economics students. Cambridge university press, Cambridge, 2010. 191 p. ISBN 978-0-521-74341-9.

Bachelor in Business Administration

Programme syllabi – Second year

MATHEMATICAL METHODS IN ECONOMICS II (EAE70E)

Department of System Engineering
Faculty of Economics and Management

Lecturer: doc. Ing. Ludmila Dömeová, CSc.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The subject stems from Mathematical methods in economics I. In contrast, it is aimed at application of individual approaches to solving the practical decision problems. The objective is to extend students' knowledge on applied mathematical methods in economics, enlarge their ability to solve problems through mathematical modelling and make them familiar with software standards in Operations Research.

Lectures:

1. Decision making
2. Game Theory
3. Multiple criteria decision making
4. Multiple criteria advanced methods
5. Project mangement
6. CPM, PERT methods
7. Stochastic modelling
8. Markov chains
9. Queuing theory
10. Stock control managemant
11. Stock control - deterministic models
12. Stock control - stochastic models

Seminars:

1. Decision making
2. Game Theory
3. Multiple criteria decision making
4. Multiple criteria advanced methods
5. Project mangement
6. CPM, PERT methods
7. Stochastic modelling
8. Markov chains
9. Queuing theory
10. Stock control managemant

11. Stock control - deterministic models
12. Stock control - stochastic models

Study literature:

1. Davis, Paul, Kulick, Jonathan, and Egner, Michael. Implications of Modern Decision Science for Military Decision-Support Systems. Santa Monica, CA, USA: RAND Corporation, 2005. ProQuest ebrary. Web. 27 September 2014.
2. Kendall, Graham, Yao, Xin, and Yew Chong, Siang. Iterated Prisoners' Dilemma : 20 Years On. River Edge, NJ, USA: World Scientific, 2007. ProQuest ebrary. Web. 27 September 2014.
3. Mark, Dave. Behavioral Mathematics for Game AI. Boston, MA, USA: Charles River Media, 2009. ProQuest ebrary. Web. 27 September 2014.
4. Miller, Scott, and Childers, Donald G. (2004). Probability and Random Processes : With Applications to Signal Processing and Communications. Burlington, MA, USA: Academic Press, ProQuest ebrary. Web. 27 September 2014 B. Printed textbooks

ECONOMICS I (ENE49E)

Department of Economic Theories
Faculty of Economics and Management

Lecturer: Ing. Petr Procházka, MSc, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective:

The subject informs about contemporary theories of market economy as the basis of economic thought and deciding of economic subjects as firms and households. It explains microeconomic premissions of economic transformations. It creates bases of economic, financial and business subjects and agrar policy and marketing and management.

Lectures:

1. Using modern IT and LMS Moodle they inform the students about the Microeconomics
2. They aim to activate the students in order to ask the questions
3. Demonstrations and case studies are used for the lectures

Seminars:

1. The students work under supervision of the teacher upon the task from Microeconomics
2. The students practice upon the supervision of the teacher their knowledge from the lectures and suggested reading
3. The students presents the seminary works from chosen microeconomic topics

Study literature:

1. FRANK R.H. Microeconomics and Behavior. 8.vyd. New York McGraw-Hill, 2009. ISBN 978-0070166745
2. SAMUELSON, P.A., NORDHAUS, W. Economic. 19. vyd. New York McGraw-Hill, 2009. ISBN 978-0073511290
3. PINDYCK, R.S., RUBINFELD, D.L. Microekonomics. 6. vyd. London Prentice Hall International, 2004. ISBN 978-0130084613
4. MANKIW, N.G. Principles of Microeconomics. 6.vyd. Texas Dryden Press, 2011. ISBN 978-0538453042

STATISTICS I (ESE53E)

Department of Statistics
Faculty of Economics and Management

Lecturer: Ing. Tomáš Hlavsa Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course is aimed at familiarizing the students with the elementary statistical methods. The instruction is consistently performed using applied approach. Selection of relevant methods for the situation assessed is underlined, as well as results interpretation in the end. The course is focused mainly on univariate analysis including statistical inference. The methods included are illustrated by means of meticulously solved examples of real data analyses.

Lectures:

1. Structure of the course. Elementary statistical concepts and symbols.
2. Basic statistical measures, statistical grouping.
3. Elements of probability. A random variable, its measures. Distributions of the discrete and continuous variables.
4. Introduction to statistical estimation theory.
5. Point and interval estimates.
6. Introduction to hypothesis testing.
7. One-sample tests.
8. Testing of a difference between two means and two variances.
9. Testing of a difference between two proportions. Paired t-test
10. Introduction to analysis of variance. Principles, application of results. One-way ANOVA. Multiple comparison ANOVA methods.
11. Complex ANOVA models.
12. Non-parametric tests.

Seminars:

1. Basic statistical measures, statistical grouping.
2. Elements of probability. A random variable, its measures. Distributions of the discrete and continuous variables.
3. Introduction to statistical estimation theory. Point and interval estimates.
4. Introduction to hypothesis testing. One-sample tests. Two-sample tests.
5. Introduction to analysis of variance. Principles, application of results. One-way ANOVA. Multiple comparison ANOVA methods.
6. Non-parametric tests.

Study literature:

Required reading

1. TAYLOR, S. Business Statistics for Non-mathematicians, Palgrave MacMillan, 2007.368 p.ISBN 978-0-230-50646-6.
2. LMS Moodle [online]. Available from http://www.moodle.czu.cz.

Recommended reading

1. FIELD, A. Discovering Statistics Using SPSS. SAGE Publications, London, 2005. 779 s. ISBN 978-0-7619-4452-4.
2. SULLIVAN, M. Fundamentals of Statistics, Pearson Prentice Hall, 2008.606 p. ISBN 978-0-13-156987-2.
3. TRIOLA, M., F. Elementary Statistics using Excel. Pearson Addison Wesley, Boston, USA, 2007.915 s. ISBN 978-0-321-36513-5.

ACCOUNTING THEORY (EUEB1E)

Department of Trade and Accounting
Faculty of Economics and Management

Lecturer: Ing. Marta Stárová Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The subject focuses fundamental principles of financial accounting. An accounting cycle is introduced. Students are guided to record elementary transactions regarding long term assets, current assets, equity and liabilities and they are leads to prepare financial statements. Revenues and expenses are accented.

Lectures:

1. Financial accounting, users of accounting information, legal framework, accounting harmonization. Financial statements.
2. Balance sheet, transaction effects. Accounting cycle, accounting documents, accounts.
3. Income statement, profit/loss, expenses, revenues. Operating expenses and revenues.
4. Inventories - characteristics, purchased inventories method A (perpetual method), finished products, work in progress, animals.
5. Intangible and tangible long term assets - characteristics, acquisition, depreciation and liquidation.
6. Taxes - direct taxes and excise duty. Value added tax.
7. Employees payroll, personal income tax.
8. Financial expenses and revenues, extraordinary expenses and revenues. Accrual principle, accruals and deferrals.
9. Equity. Profit distribution, loss coverage.
10. Corporation income tax. Income statement structure.

Seminars:

1. Classification of balance sheet items. Balance sheet construction, transaction effects. Accounting documents, journalizing, accounts, posting.
2. Expenses and revenues recording. Operating expenses and revenues. Purchased inventories.
3. Finished products, work in progress, animals recording. Intangible and tangible long term assets acquisition, depreciation and liquidation recording.
4. Taxes - direct taxes and excise duty recoding. Value added tax recording and reporting to state authorities. Employees payroll transactions recording, personal income tax calculation.

5. Accruals and deferrals recording. Financial expenses and revenues, extraordinary expenses and revenues recording. Profit distribution, loss coverage. Corporation income tax calculation and recording.

Study literature:

1. Carmichael, D. R., and Graham, L. Accountants' Handbook, Volume 1 : Financial Accounting and General Topics (12th Edition).
2. Hoboken, NJ, USA: John Wiley & Sons, 2012. ProQuest ebrary. [Accessed 2015-07-20]. ISBN 978-1118252864.
3. Gangwar, S. and Gangwar, D.K. Fundamental Principles of Accounting. Mumbai, IND: Himalaya Publishing House, 2009. ProQuest ebrary. [Accessed 2015-07-20]. ISBN 978-8184884517.
4. Murthy, G. Financial Accounting. Mumbai, IND: Himalaya Publishing House, 2009. ProQuest ebrary. ISBN 978-8184882995.
5. STÁROVÁ, Marta. Accounting Theory with Practical Applications. Česká zemědělská univerzita v Praze. 2015. 1.vyd. ISBN 978-80-213-2588-3.

PLANNING AND PROJECT MANAGEMENT (EAED9E)

Department of Systems Engineering
Faculty of Economics and Management

Lecturer: Ing. Roman Svoboda, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The subject brings a deeper introduction to Project management. From the beginning students are involved in project team on semester project. Teamwork among students is the main and a key benefit of the subject. Students during lectures are presented the basic principles and practices of Project management, especially the emphasis is on time, resource and cost analysis of projects. The course deals with both soft tools and mathematical methods, but also to Risk management and influence of the human factor.

Lectures:

1. Introduction to Project management (PM). Logical Framework in project. Work Breakdown Structure.
2. Phases and lifecycle of project. Baseline documents in project.
3. Project planning and scheduling. Resource management.
4. Earned Value management. Software tools for Project management.
5. Risk management in projects. Weak points and Human factor in projects.
6. Formalization of project. Graph theory. Critical path method.
7. Mathematical methods in Project management I. - PERT and GERT.
8. Mathematical methods in Project management II. - MPM and Fuzzy CPM.
9. Simulation models in Project management.
10. Theory of Constraints and Critical chain method. System thinking.
11. Project Management Office. Project, Program and Portfolio management.
12. International standards in Project management (PMI, IPMA, PRINCE2).

Seminars:

1. Project team, Logical framework and Work breakdown structure.
2. Baseline project plan. Resource allocation.
3. Resource management. Actual project plan.
4. Risk management. Risk register.
5. Consultation semester works.
6. Presentation of semester works.

Study literature:

1. Kerzner, H. Project Management: A Systems Approach to Planning, Sheduling and Controlling. New York: Van Nostrand Reinhold, 1979. 487 s. ISBN 0-442-24348-0.
2. Taha H. A. Operations Research. New York: Macmillan, 2002.
3. Turban, E., Aronson, J. Decision Support Systems and Intelligent Systems. New Jersey: Prentice Hall, 2001.

FOREIGN LANGUAGE - FRENCH (ELE34E_1), (ELE34E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: Mgr. PhDr. Milena Dvořáková, MBA
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The course is aimed at complete beginners and is taught in English and on the basis of the English linguistics. The students will learn everyday vocabulary and relevant grammatical/syntactical structures. At the same time, they will encounter the basics of economic terminology and lexical means relative to the university/faculty environment. The course integrates all four skills - listening, reading, writing and speaking. However, it is mainly focused on the communicative aspects of a foreign language.

A two-term subject is concluded at the end of both terms by a final test and in the summer term by an examination (written + oral).

Seminars – autumn semester:

1. Introduction, phonetics, pronunciation, internationalisms.
2. Unité 1 - At the reception I.
3. Unité 1 - At the reception II.
4. Unité 1 - Ways of greeting.
5. Unité 1 - Greetings and introduction
6. Unité 1 - A quick look at the European Union
7. Unité 1 - Test your self
8. Unité 2 - Who are they?
9. Unité 2 - What are they?
10. Unité 2 - A break
11. Unité 2 - Making judgements
12. Unité 2 - European institutions and stereotypes

Seminars – spring semester:

1. Revision, unité 3 - Hello - on the phone.
2. Unité 3 - Hold on - personal pronouns te/vous, expressing cause/result: pourquoi - parce que.
3. Unité 3 - Message - time prepositions and expressions, invitations,-DRE, -IR verbs.
4. Unité 3 - Social expressions - emails, invitations; pouvoir, vouloir, devoir verbs (CAN, WANT, HAVE TO).
5. Unité 4 - Departures, requesting, expressing wishes, booking/purchasing tickets.
6. Unité 4 - At the train station, at the airport, in the city; prepositions of place, asking for directions/giving directions.

7. Unité 4 - Passenger information, near future, expressing future and talking about future events.
8. Your key - hotel and hotel description.
9. Unité 5 - Bookings, check-in, past participle (participe passé), past simple (passé composé).
10. Unité 5 - Office lease - renting a flat, office; expressing opinions.
11. Unité 5 - Writing - simple formal letters and emails, COD (direct object).
12. Revision (review of grammar and vocabulary), revision test.

Study literature:

1. TAUZIN, B.; DUBOIS, A.-L. Objectif Express 1. Paris: Hachette Livre, 2006. 192 p. ISBN 978-2-01-155427-7.
2. KOZMOVÁ, J.; BROULAND, P. Francais commercial. Praha: Computer Press, 2006. 288 p. ISBN 80-251-1099-0.
3. LEGRAIN, M.; GARNIER, Y. Le Petit Larousse Illustré. Paris: Larousse, 2002. 1786 p. ISBN 2-03-530202-1.

FOREIGN LANGUAGE - GERMAN (ELE35E)

Department of Languages
Faculty of Economics and Management

Lecturer: Mgr. Michaela Peroutková, Ph.D.
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The course is aimed at complete beginners and is taught in English and on the basis of the English linguistics. The students will learn everyday vocabulary and relevant grammatical/syntactical structures. At the same time, they will encounter the basics of economic terminology and lexical means relative to the university/faculty environment. The course integrates all four skills - listening, reading, writing and speaking. However, it is mainly focused on the communicative aspects of a foreign language.

The classes are practical in terms of learning a foreign language. The classes are focused on developing and integrating all language skills (speaking, reading, writing and listening). Students work with various short foreign texts (e.g. recommended textbook, workbook, extra topic-related materials and presentations) according to the tasks assigned by the teacher. They also listen to foreign recordings, watch videos while trying to demonstrate the understanding of foreign language inputs. They also deliver short interactive exercises/presentations assigned by the teacher. All supplementary materials, including links to authentic materials, dictionaries and preliminary tests are available via LMS Moodle.

The course takes two semesters and is concluded at the end of both semesters by a final test and in the spring semester by an examination (written + oral).

Seminars – autumn semester:

1. Introduction.
2. International words.
3. In a restaurant.
4. In the language course.
5. Countries and Languages.
6. People - Contacts.
7. Living conditions.
8. Appointments.
9. Important information.
10. Getting around in the city.
11. Transportation.
12. Test.

Seminars – spring semester:

1. Every day life, free time.
2. Professions.
3. Excursion through Berlin.
4. Travelling.
5. Vacation and holiday.
6. Food and drinks.
7. Ordering food in a restaurant.
8. Shopping.
9. Clothing and weather.
10. Body and sport.
11. Seeing the doctor.
12. Test.

Study literature:

1. FUNK, Hermann; KUHN, Christine; DEMME, Silke. Studio d A1 : Deutsch als Fremdsprache. Cornelsen Verlag, 2011. 256s. ISBN 978-3-464-20707-9.
2. FUNK, Hermann; KUHN, Christine; DEMME, Silke. Studio d A1 : Deutsch als Fremdsprache. Sprachtraining mit eingelegten Lösungen. Cornelsen Verlag, 2011. 96s. ISBN 978-3-464-20708-6.
3. Langenscheidt Taschenwörterbuch Englisch - Buch mit Online-Anbindung, Berlin und München : Langenscheidt-Redaktion, 2013. 1632s. ISBN: 978-3-468-11138-9.
4. REIMANN, Monika. Grundstufen - Grammatik für Deutsch als Fremdsprache. Imaning : Max Hueber Verlag, 2007. 186s. ISBN 3-19-011575-3.

FOREIGN LANGUAGE - SPANISH (ELE36E_1), (ELE36E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: Mgr. Alena Drebitková Malá, Ph.D.
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The subject is taught on the basis of English. The language level is intended for the beginners with no language skills. The main goal of this level is to teach students to achieve simple communicative abilities in every-day situations, simple oral and written expressive skills, the ability to read and understand simple texts and finally to understand the spoken language. Through communicative exercises students gradually learn basic grammar and vocabulary.

Classes are practical in terms of learning the foreign language. The classes are focused on developing and integrating all language skills. Students work with foreign texts (e.g. in recommended textbooks) according to the tasks assigned by the teacher. They also listen to foreign texts and have to demonstrate the understanding of foreign language. They deliver presentations assigned by the teacher. The used method is communicative, based mainly on interaction.

The course takes two semesters and is concluded at the end of both semesters by a final test and in the spring semester by an examination (written + oral). Students are not allowed to enrol into the summer term unless they are credited for the winter term.

Seminars – autumn semester:

1. Greetings.
2. What is your name?
3. Natinalities and origin.
4. Phone calls.
5. My flat description.
6. How do I get to …?
7. Renting a flat.
8. What is the time?
9. I like and I do not like.
10. Eating in a restaurant.
11. Asking somebody to do something.
12. Credit test.

Seminars – spring semester:

1. Repaso de las unidades 1-4
2. Cómo voy a ..., la ciudad
3. Dónde está ..., las tiendas
4. Qué hora es?
5. Los números hasta 1000
6. Los hábitos, con qué frecuencia
7. El tiempo libre, el verbo gustar, mis aficiones
8. La comida, en un restaurante
9. Hacer la compra, recetas
10. La ropa, en una tienda de ropa
11. Los materiales, el diseňo y la moda
12. Repaso final de las unidades 5-8

Study literature:

1. CASTRO, Francisca; MARÍN, Fernando; MORALES, Reyes. Nuevo ven 1: Libro del estudiante. Madrid: Edelsa, 2005. 192 s. ISBN 84-7711-832-9.
2. CASTRO, Francisca; MARÍN, Fernando; MORALES, Reyes. Nuevo ven 1: Libro de ejercicios. Madrid: Edelsa, 2005. 64 s. ISBN 84-7711-833-7.
3. FENCLOVÁ, Jitka; FOUSKOVÁ, Kateřina. Nuevo ven 1: Studijní příručka. Plzeň: Fraus 2005. 88 s. ISBN 80-7238-481-3.
4. MARÍN, Fernando; MORALES, Reyes. VENTE1 Libro del estudiante. Madrid, Edelsa 2014. 184 s.ISBN 978-84-7711-796-4

FOREIGN LANGUAGE - CZECH (ELE37E_1), (ELE37E_2)

Department of Languages
Faculty of Economics and Management

Lecturer: PhDr. Martina Jarkovská, Ph.D.
Teaching period: Autumn + Spring semester
Type subject: Bachelors
ECTS credit: 2.0 + 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 48

Objective and general description:

The subject is created for students with zero knowledge of Czech but it takes into account that the students will live in the Czech environment and every day they will try to communicate in Czech language. The students will be introduced to the Czech language system and they will learn to express in Czech the information about themselves and their environment. They will be able to communicate in basic situations at university premises, in a shop, in a restaurant, in the town. They will learn vocabulary concerning the taught topics, forms of verbs in the present and past tense, forms of nouns and adjectives in appropriate cases and future verb forms. They will also get to know the Czech culture. The subject is A1 level according to the European Framework for Languages.

Seminars – autumn semester:

1. Lesson 1: What is it? Who is it? What is your name? Where are you from?
2. Lesson 1: What do you study? Verb conjugation. Numbers 0 - 10. Telephone conversations. Email.
3. Lesson 2: Oreintation. Can you tell me the way, please? Modal verbs.
4. Lesson 2: What is your address? Verb conjugation. Numbers 11 - 100.
5. Lesson 3: In the restaurant. Eating and drinking list.
6. Lesson 3: I like. Singular accusative. Hobbies.
7. Lesson 4: My family. Possessive pronouns. Adjectives.
8. Lesson 4: Describing family members. Verb conjugation. Singular and plural accusative.
9. Lesson 5: When do we meet? At what time? What is the date today?
10. Lesson 5: Modal verbs. Do you want to go to/for? I like doing.
11. Lesson 6: Famous people. Who was it? What did you do yesterday? Past tense.
12. Lesson 6: Where were you? Singular locative.

Seminars – spring semester:

1. Lesson 7: Where were you? Static verbs and prepositions "v/ve, na, u (in, on, at). Singular and plural locative.
2. Lesson 7: Where were you on holidays? Weather forecast.
3. Lesson 8: Planning the time. Where are we going? Expressing future. Prepositions "do, na, k" (to, for).
4. Lesson 8: Where? x Where to? Singular genitive. Writing email.

5. Lesson 9: House and flat. Renting and bying house/flat. Prepositions "pro, na, za"(for).
6. Lesson 9: Shops and claims. Singular and plural nominative and accusative.
7. Lesson 10: Travelling. "Long" and "short" verbs of movement.
8. Lesson 10: When will you come for a visit? Verbs with prefixes: "přijít, odejít" (come, leave).
9. Lesson 11: Human body. At the doctor's. Object constructions "Bolí mě..., Je mi..." (I have...ache).
10. Lesson 11: Can you help me? Short personal pronouns in accusative and dative.
11. Lesson 12: Greetings and wishes. Singular dative. Declination of "kdo, co" (who, what) (nominative, dative, accusative, ůocative).
12. Lesson 12: Telephone conversation. At the visit.

Study literature:

1. HOLÁ, Lída; BOŘILOVÁ, Pavla. Čeština Expres 1 (A1/1). 1. vyd. Praha: Akropolis, 2010. 96 s. ISBN 978-80-87310-13-7.
2. HOLÁ, Lída; BOŘILOVÁ, Pavla. Čeština Expres 2 (A1/2). 1. vyd. Praha: Akropolis, 2011. 96 s. ISBN 978-80-87481-26-4.
3. REMEDIOSOVÁ, Helena; ČECHOVÁ, Elga; PUTZ, Harry. Do you want to speak Czech? 1. 4. vyd. Liberec: Finidr, 2002. 414 s. ISBN 80-902165-8-7.

FUNDAMENTALS OF POLITICAL SCIENCE (EHEA0E)

Department of Humanities
Faculty of Economics and Management

Lecturer: Ing. Václav Bubeníček, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The main goal of the Fundamentals of Political Science course is to understand politics as a specific activity that affects everyday life. Graduates acquire and use basic knowledge of how the political process works and the role of political parties and civil society institutions within a political system. They are able to distinguish between types of states, forms of government, different political ideologies, types of electoral systems and their impacts on the mechanism of a party system. They are familiar with the theory of democracy, the issue of political legitimacy and representation of interests and have an overview of the basic tasks of foreign policy and international relations.

Lectures:

1. Politics, political power and political system
2. Nations, states and nationalism.
3. Theory of democracy and democratic political regimes.
4. Separation of powers. Presidential and parliamentary form of government.
5. Elections and electoral systems I. Model of electoral system. Majority and plurality electoral systems.
6. Elections and electoral systems II. PR systems and mixed electoral systems.
7. Political parties and political party systems. Theory of coalitions.
8. Political ideologies I. Liberalism, Conservatism and Socialism.
9. Political ideologies II. Other political ideologies. Political orientation.
10. Non-democratic political regimes. Authoritarian and totalitarian regimes.
11. Political movements and interest groups. Resistance, Rebellion and Revolution.
12. International relations and international political system.

Seminars:

1. Legitimacy and legality. Morality and pragmatism in politics.
2. Theory of democracy. Comparison of electoral systems.
3. Political parties and party systems. Political spectrum in CR.
4. Division and control of power in CR. Parliament and legislative process.
5. Human and civic rights in international documents.
6. International relations. Foreign policy of CR.

Study literature:

1. HEYWOOD, A. Politics. 3 vyd. Basingstoke: Palgrave Macmillan, 2007. 478 s. ISBN 9780230524972.
2. BAYLIS, J., SMITH, S., OWENS, P. The Globalization of World Politics: An Introduction to International Relations. 5 vyd. Oxford New York: Oxford University Press, 2011. 636 s. ISBN 978019956909.
3. HEYWOOD, A. Political Ideologies. 4 vyd. London: Palgrave Macmillan, 2007. 366 s. ISBN 9780230521797.
4. REINICKE, W. H. Global public policy: governing without government? Washington: Brookings Institution Press, 1998. 307 s. ISBN 0-8157-7389-7.
5. ZAKARIA, F. The Post-American world. New York: W W Norton & Company Incorporated, 2008. ISBN 9780393062359.

ECONOMICS II (ENE50E)

Department of Economic Theories
Faculty of Economics and Management

Lecturer: prof. doc. Ing. Mansoor Maitah, Ph.D. et Ph.D
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The goal of the subject is to familiarize the student with the basic concepts and methods of macroeconomics and to enable students to apply these concepts and methods to policy issues. The subject's graduates have knowledge of modern macroeconomic theories. They understand basic macroeconomic terms, regularities and use of macroeconomic theories in state's market policies. They include critical understanding of the tools and types of market policies and setting the macroeconomic equilibrium. The knowledge are further widened and specialized in other subjects included in the study programme. They have clear understanding of their knowledge frontiers and their concept about further studies in this field.

Lectures:

1. Introduction to the study of macroeconomics, a brief overview of the evolution of economic theory.
2. Efficiency indicators of national economy.
3. Equilibrium product in two-sector model (income - expenditures).
4. Equilibrium product in models with three and four-sector (income - expenditures).
5. Money and money market, money supply, equilibrium in the money market.
6. Money market and deriving of LM curve and IS curve.
7. Market of goods and services and money market - IS-LM model in closed economy.
8. Aggregate demand and aggregate supply - AD-AS model.
9. Balance of payments and its determination. Exchange rate.
10. Inflation, unemployment, Phillips curve.
11. Fiscal policy, monetary policy - direct and indirect tools of monetary policy.
12. Business cycle - types of cycles, their progress and recent developments.

Seminars:

1. Introduction to the course, requirements for credit, assignment of work, efficiency indicators of national economy (GDP).
2. Equilibrium product in two, three and four-sector economy (model income - expenditures).
3. Money market, IS-LM model, deriving of LM curve and IS curve.
4. Aggregate demand and aggregate supply, AD-AS model.
5. Inflation, unemployment, Phillips curve.
6. Evaluation, credits.

Study literature:

1. MAITAH, Manssor. Macroeconomics. 1. vydání. Praha ČZU PEF, 2009. 180 s. ISBN 978-80-213-1904-2.
2. SAMUELSON, P.A., NORDHAUS, W. Economic. 19. vyd. New York McGraw-Hill, 2009. ISBN 978-0073511290
3. MANKIW, N.G. Principles of Macroeconomics. 4.vyd. Texas Dryden Press, 2011. ISBN 978-0538453066

STATISTICS II (ESE54E)

Department of Statistics
Faculty of Economics and Management

Lecturer: Ing. Tomáš Hlavsa Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

This course is a continuation of the course Statistics I, it makes students familiar with the more advanced statistical methods. These are namely the regression and correlation analysis and time series analysis. The lectures are accompanied by demonstrations of the methods in practical applications. Selection of a relevant method and interpretation of its results are stressed. Statistical software is used in the practicals.

Lectures:

1. Introduction to regression and correlation. Computation algorithms and application of the results. Ordinary least squares. Simple linear regression.
2. Simple non-linear regression.
3. Multiple regression and correlation.
4. Inferential operations in the regression and correlation.
5. Time series analysis – introduction, elementary characteristics.
6. Time series analysis – trend analysis.
7. Time series analysis – periodical fluctuation; point and interval prediction.
8. Further time series analysis – exponential smoothing.
9. Introduction to categorical data analysis. Analysis of two way contingency tables, chances and risks.
10. Analysis of contingency tables, sign scheme.
11. Index numbers – homogenous data index analysis.
12. Index numbers – non-homogenous data index analysis.

Seminars:

1. Introduction to regression and correlation. Computation algorithms and application of the results. Ordinary least squares. Simple linear regression.
2. Simple non-linear regression. Multiple regressions. Inferential operations in the regression and correlation.
3. Time series analysis – elementary characteristics, trend analysis.
4. Time series analysis – periodical fluctuation, point and interval prediction.
5. Analysis of contingency tables.
6. Index numbers.

Study literature:

1. FIELD, A. Discovering Statistics Using SPSS. SAGE Publications, London, 2005. 779 s. ISBN 978-0-7619-4452-4.
2. LMS Moodle [online]. Available from http//www.moodle.czu.cz.
3. SULLIVAN, M. Fundamentals of Statistics, Pearson Prentice Hall, 2008.606 p. ISBN 978-0-13-156987-2.
4. TAYLOR, S. Business Statistics for Non-mathematicians, Palgrave MacMillan, 2007.368 p.ISBN 978-0-230-50646-6.

ACCOUNTING FOR ENTREPRENEURS (EUEB2E)

Department of Trade and Accounting
Faculty of Economics and Management

Lecturer: Ing. Enikő Lőrinczová, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim of this course is to provide information about the main financial accounting topics and procedures. The course is dealing with assets acquisition, inventory valuation, changes in own inventory, depreciation of long-term assets, accruals and deferrals, provisions, leasing, accounting for securities, income tax and shareholder´s equity.

Lectures:

1. Accounting harmonization.
2. The financial statements.
3. The income statement items terminology of real companies.
4. Calculating the profit or loss in the income statement by nature and by function.
5. Reporting the changes in own inventory.
6. Product costing.
7. Accounting for securities.
8. The cash flow statement.
9. The components of own Equity. Earnings per share.
10. Income tax. Deferred tax.
11. Presentation by students on the accounting system in their home country.

Seminars:

1. Recording on the balance sheet items. Recording on the income statement items.
2. Changes in own inventory - adjusting expenses, adjusting revenues.
3. Summary example of recording expenses by nature and by function.
4. Depreciation of assets.
5. Cost and equity method of recording securities.
6. Accruals and deferrals.
7. Provisions. Adjustments to assets.
8. Accounting for a financial lease.
9. Taxes.
10. Cash-flow calculation.

11. Presentation by students on the accounting system in their home country.
12. Presentation by students on the accounting system in their home country.
13. The balance sheet items terminology of real companies.

Study literature:

1. ATRILL, P., McLaney, E. Financial Accounting for Decision Making. Harlow, UK:Pearson, 7. edition, 2013, 592 p., ISBN 978-0273785637

2. Deloitte. IAS Plus: An Overview of International Financial Reporting Standards [online]. Available at www: http://www.iasplus.com/en/standards

3. ELLIOT B., ELLIOT J. Financial accounting and reporting. Harlow, UK:Pearson, 2013, 904 p., ISBN 978-0-273-77817-2

E-COMMERCE AND BUSINESS (ETE8AE)

Department of
Faculty of Economics and Management

Lecturer: Ing. Alexandr Vasilenko
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The aim is to give a comprehensive explanation of business problems using modern Internet technologies, including analysis, design, testing and implementation of electronic commerce. The student after completing the course is able to prepare the groundwork for the creation of e-business applications, manage and implement the installation, including plug-ins, test and implement a comprehensive implementation.

Information Literacy obtained subject supplemented or Information and Communication Technologies and elective Internet technologies, where the student gets a theoretical basis for the functioning of software, information technology and the Internet. Furthermore, it is the ability of teamwork and willingness to actively work to resolve the issue.

Lectures:

1. World Wide Web
2. Business plan in e-commerce
3. Computer graphics for e-commerce
4. Product photography
5. E-shop optimalization
6. Technologies for e-commerce
7. Designing e-shop
8. E-commerce security
9. Laws and e-commerce
10. Advertising online and analytics tool
11. Analytic tool for e-commerce
12. Global e-commerce

Seminars:

1. Installation of electronic commerce based on open source technologies, installation of basic modules, environment settings.
2. Installing expansion modules, components and plug-ins. Their configuration and integration with ecommerce templates
3. Modifying templates, setting cascading style sheets and HTML editing templates.
4. Graphic design visual part of the template and edit photos sample menu.
5. Filling contents into the electronic commerce environment.
6. Presentation of the work, its advocacy and evaluation of other projects.

Study literature:

1. FOX, Vanessa. Marketing in the Age of Google Your Online Strategy IS Your Business Strategy. San Francisco Wiley, 2010- 256 s. ISBN-13 978-0470537190
2. CHAFFEY, Dave. E-Business and E-Commerce Management Strategy, Implementation and Practice. 4th edition. Upper Saddle River Prentice Hall, 2009. 800s. ISBN-13 978-0273719601
3. KAUSHIK,Avinash. Web Analytics 2.0 The Art of Online Accountability and Science of Customer Centricity. San Francisco Sybex, 2009. 504 s. ISBN-13 978-0470529393
4. LAUDON, Keneth, TRAVER, Carol Garcia. E-Commerce 2011. 7th edition. Upper Saddle River Prentice Hall, 2010. 912 s. ISBN-13 978-0136091196
5. SARKAR, Suhreed. Joomla! E-Commerce with Virtuemart. Birmingham Packt Publishing, 2009. 467s. ISBN-13 978-1847196743
6. SCOTT, David Meerman. The New Rules of Marketing and PR How to Use Social Media, Blogs, News Releases, Online Video, and Viral

Bachelor in Business Administration

Programme syllabi – Third year

PSYCHOLOGY AND ETHICS IN BUSINESS (EPEE1E)

Department of Psychology
Faculty of Economics and Management

Lecturer: doc. PhDr. Luděk Kolman, CSc.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course deals consecutively with selected subfields of applied psychology (or, psychology of work and organisation, respectively). The aim is to take student to some depth as goes about the problems of the field of study, and show the practical relevance of understanding them. The specific subjects stressed in the course are job analysis, personnel selection methods and methodology and those parts pf psychology, which are relevant to the field of business ethics.

Lectures:

1. Affinities and differences of economy and psychology in the methodological perspective
2. Methods of thought and information processing
3. Psychology of work and a man in an organization
4. Job analysis
5. The use of the job analytical data
6. Measurement of human performance at work
7. Methods of personnel selection and assessment (a)
8. Methods of personnel selection and assessment (b)
9. Altruistic behavior and Homo Economicus
10. Models of collective actions
11. Piaget and Kohlberg theories and their application
12. The relevance of the course contend to the fields of business and management

Seminars:

1. Industrial and Organizational Psychology at Work
2. Altruistic behavior and Homo Economicus
3. Models of collective actions
4. Measurement of human performance at work
5. Methods of employee selection and evalution
6. Aplication in bussiness and entrepreneurship

Study literature:

1. SWAILES, S. -- SILVESTER, J. -- ARNOLD, J. -- PATTERSON, F. -- AXTELL, C. -- BURNES, B. -- RANDALL, R. -- HARTOG, D D. --
2. ROBERTSON, I T. -- HARRIS, D. -- COOPER, C L. Work psychology : understanding human behaviour in the workplace. Harlow: Pearson Education Limited, 2010. ISBN 978-0-273-71121-6.
3. RANDALL, R. -- ARNOLD, J. Work psychology : understanding human behaviour in the workplace. New York: Pearson Education, 2016. ISBN 9781292063409.
4. Bakker, A. B. & Leiter, M. P. (2010). Work Engagement. N. York: Psychology Press. ISBN 978-1-84 169-736-9

MANAGEMENT SKILLS (EREQ4E)

Department of Management
Faculty of Economics and Management

Lecturer: doc. Ing. Tomáš Macák, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

In terms of technical and practical competencies, this course equips students of exceptional variety of techniques, business management, which in turn allows to determine the core competencies of effective corporate leaders and business visionaries who are also highly methodically equipped not only to generate new business ideas, but also for the smooth overcoming resistance during implementation of these plans.

Lectures:

1. Management characteristics and management theory evolution, particular schools.
2. Managerial methods and techniques.
3. Organisational systems, business subjects.
4. Organisational structures typology.
5. Managerial structures typology.
6. Organisational structures projection.
7. Organisational systems behavior.
8. Social system, structure, factors.
9. Motivation mechanism.

Seminars:

1. Personality in organisation. Case study: "Graduated with excellent achievement". Personality tests. Psycho-games.
2. Group dynamics and group effectiveness. Case study: "Software and marketing". Test: "Working group problems analysis". Roles in team. Selection of team member.
3. Managerial functions. Planning, Case study: "Discords between directors".
4. Organising. Case study: :Co-operation among departments".
5. Human leadership and managerial work styles. Case study: "Overloaded CEO". Test: "Ego-gram".

Study literature:

1. Belker, L. B. (2012), The First-Time Manager. AMACOM- a Division of American Management Association. ISBN 13:978-08144-1783-6.
2. Caproni, P. J. (2012), Management Skills for Everyday Life, Pearson Education, Inc., Upper Saddle River, NJ
3. Evans,. W.L. (2009). Management Skills & Leadership Development Course: How to be a Great Manager & Strong Leader in 10 Lessons. Master Class Management.
4. Whetten, D. A., Cameron, K. S. (2015), Developing Management Skills. Pearson Prentice Hall, Upper Saddle River, NJ

AGRARIAN SECTOR ECONOMICS (EEEF7E)

Department of Economics
Faculty of Economics and Management

Lecturer: Ing. Jiří Mach, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course introduces students to basic economic characteristics of agrarian sector and using examples of agri-commodities highlights the market mechanism in the production and processing of agricultural commodities. The course focuses on methods of evaluation of various measures in agriculture (CAP, trade barriers, the impact of WTO) and on a deeper analysis of the factors affecting the economics of production of final products in vertical integration. It also emphasizes the market principles and traits of agricultural and food commodities. Students will become familiar with the specifics of the global, European and national agricultural markets.

Education Plan:

1. Definition and object of agrarian sector and agricultural economics. The role of agriculture in the national economy, specifics of agriculture.
2. Production factors in agrarian sector.
3. Foreign trade of agrarian products – WTO (GATT) - general system of preferences, EBA, CPA.
4. Farm subsidy and support system - European agricultural market, common market organisation and its implications in the Czech agriculture, the political-legal environment.
5. Categories of costs and results of economic activity in AS.
6. Structure and infrastructure of AS -vertical and horizontal integration in agri-food chains.
7. Economics of cereal production.
8. Economics of oil-plants vertical; biofuels production and their impact to world prices of food.
9. Economics of sugar and starch production.
10. Economics of milk production, processing and trade.
11. Beef, pork and poultry production, trade and economics.
12. Sustainable agriculture, GMOs and the food safety.

Study literature:

1. Colander, D.C.: Macroeconomics.Irwin International, 1995
2. Colander, D.C.: Microeconomics.Irwin International, 1995
3. Kay, R. D., Edwards, W. M.: Farm Management. McGraw-Hill, 1994.
4. Norton, G. W., Alwang, J.: Introduction to Economics of Agricultural Development. McGraw-Hill, 1993.
5. Brouwer, F., Straaten v. d. J.: Nature and Agriculture in the EU: New Perspectives on Policies that Shape the European Countryside. Edward Elgar Publishing, Cheltenham – Northampto
6. Tisdell, C.: Economics and Ecology in Agriculture and Marine Production. Edward Elgar Publishing, Cheltenham – Northampton, 2003.
7. Perman, R.,Ma,Y.:Natural resources and environment economics.Longman, London, 1996
8. Smutka, L. et al.: World Agricultural Production, Consumption and Trade Development – Selected Problems. PowerPrint, Prague, 2012.

THEORY OF TRADE (EUEB3E)

Department of Trade and Accounting
Faculty of Economics and Management

Lecturer: prof. doc. Ing. Mansoor Maitah, Ph.D. et Ph.D
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Graduates have theoretical as well as limited practical knowledge of the theory of foreign trade. They are made to understand the issues of international trade and international trade policies. Main emphasis is given to the ability of a student to understand the issues of foreign trade relationships and take a critical standpoint to key factors influencing today's global trade. They must handle issues related to the following subjects: territorial and commodity structure of world trade of goods and services, liberalization, glovalizatiom, internationalization and integration. The knowledhe is related not only classic theory but also up to date information available to the individual topics. Graduates are also aware of current development and position of world trade within the global economy (Emphasis is put to the work with current data available through domestic and foreign databases).

Education plan:

1. International trade theory
2. The political economy of international trade
3. External economic relations
4. The role of foreign trade in national economy
5. Liberalization vs. protectionism the regulation of external economic relations
6. Basic export and import operations
7. Trading terms and the content of commercial agreements
8. Commercialism
9. Regional economic integrations
10. European Union, foreign trade and Lisbon strategy
11. Global capital market, international financial regime
12. Foreign direct investment and foreign exchange market

Study literature:

1. DUNN, R., M., INGRAM, J. C. International Economics. New York John Wiley & Sons, Inc, 1996. ISBN 0 471 11669 6.
2. KING, P. International Economics and International Economic Policy. 4th ed, Boston McGraw Hill, 2004. 456 s. ISBN 13 978 0072873337.

INVESTMENT AND LONG TERM FINANCING (EEEI4E)

Department of Economics
Faculty of Economics and Management

Lecturer: Ing. Petr Procházka, MSc, Ph.D.
Teaching period: Autumn semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Investment and Long Term Financing class introduces theories of financial economics and management related to long term investments and capital markets. Students gain insights into time value of money using concept of net present value. Furthermore, capital markets and financial intermediaries are introduced. Various asset classes valuation is done primarily for fixed-income securities and common stocks. Derivatives are briefly introduced d and their role in financial management is stressed out. Finally, theories of capital budgeting, porfolio diversification and portfolio management are introduced as well as practically applied.

Lectures:

1. Financial markets.
2. Financial intermediaries.
3. Asset vs. financial markets.
4. Time value of investment.
5. Discounted cashflows, NPV, future value.
6. Credits.
7. Stock markets.
8. Access to foreign exchange markets for long-term investors.
9. Commodity markets from long-term investment perspective.
10. Government bonds.
11. Efficient market hypothesis.
12. Recapitulation

Study literature:

1. Bodie, Z. and Merton, R. (2000). Finance. Upper Saddle River, NJ: Prentice Hall.
2. Groppelli, A. and Nikbakht, E. (2000). Finance. Hauppauge, N.Y.: Barron's.

BUSINESS ECONOMICS (EEEE7E)

Department of Economics
Faculty of Economics and Management

Lecturer: doc. Ing. Karel Tomšík, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

The course provides students with the theoretical knowledge needed to The course is intended to explain basic theory of business economics and methods used in analysing the position of firms in the market. The subject should prepare students for further study of economic subjects in higher education degree. Basic teaching forms are lectures, seminars, elaborating individual projects.

Lectures:

1. Introduction (Business Objectives, Business Environment)
2. Building up Business. Forms of Business Organizations (Starting-up Business Activities, Legal Forms of Business Organizations)
3. Co-operation and Integration in Business Organisations (Forms of Co-operation and Integration, Diversification)
4. Demand Analysis and Customers Behaviour. Elasticity of Demand and Supply
5. Financing a Business (Forms of Financing, Financial Consequences)
6. Costing (Introduction to Costing, Cost terms and Concepts)
7. Cost-Volume-Profit Analysis and Cost Functions (Product-Factor Decision)
8. Production Theory I. (The Production Process - Factor-Product Decision)
9. Production Theory II. (The Production Process - Factor-Factor and Product-Product Decision)
10. Pricing (Factors Affecting Pricing, Pricing Concepts)
11. Evaluation of Economic Information in a Business Enterprise (Analysis of Financial Statements)
12. Business Economics and Ethics (Pareto Optimality, Welfare Economics, Business and Sustainability)

Seminars:

1. Introduction, basic economic calculations in excel
2. PEST analysis
3. Project elaboration - Budgeting
4. Demand Analysis
5. Costing - practical exercises
6. Production Theory - practical exercises

Study literature:

1. Keat, P.G., Young, K. P., Managerial Economics. Economic Tools for Today's Decision Makers. 6th edition. London, Pearson Education, 2008. 598 s. ISBN 978-0-13-507065-9
2. Gitman, J. Essentials of Managerial Finance. 4th edition, Boston Pearson International Edition, 2006. 580 s. ISBN 0-321-35648-9
3. Griffiths, A., Wall, S. Economics for Business and Management. 3rd edition. Harlow Pearson Education, 2011. 561 s. ISBN 978-0-273-73524-3
4. Ireland, R. D., Hoskisson, R. E., Hitt, M. A. Understanding Concepts of Business Strategy. Thomson Higher Education, 2006. ISBN 0-324-30604-0
5. Samuelson, P. A., Nordhaus, W. D. Economics. 19th edition. New York, McGraw-Hill/Irwin, 2009. 744 s. ISBN 978-0-073-51129-0

MANAGEMENT THEORY (EREQ5E)

Department of Management
Faculty of Economics and Management

Lecturer: doc. Ing. Tomáš Macák, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written, oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

Today, the techniques of management theory applications are known to busi-ness leader, urban planners, farmers, military strategists, space scientists, and public administrators in host of fields. Words such as systems, models, optimization, simulation, and cost-benefit are now common in the public voca-bulary. The objective is thus great for an introductory subject for university students that explains, with minimum of mathematics, how to formulate decision problems, how to solve them using management science concepts, and how to apply the solutions obtained.

Lectures:

1. Management characteristics and management theory evolution, particular schools.
2. Managerial methods and techniques.
3. Organisational systems, business subjects.
4. Organisational structures typology.
5. Managerial structures typology.
6. Organisational structures projection.
7. Organisational systems behavior.
8. Social system, structure, factors.
9. Social situations, groups, relationships.
10. Motivation mechanism.
11. Human leadership, qualification, delegation, managerial work style.
12. Organisational system dynamics, life cycles, organisational growth.
13. Managerial processes, decision-making and influencing processes, inter-personal communication.
14. Managerial work effectiveness, successful manager work principles.

Study literature:

1. HRON, J., LHOTSKÁ, B., MACÁK, T. Teorie řízení - podklady na cvičení. Reprografické studio PEF ČZU. Praha 2009.
2. MACÁK, T. Vytváření spotřebitelské hodnoty - Prostřednictvím řízení kvality výrobku a unikátnosti návrhu produktu. 2010. Wolters Kluwert Publishing. ISBN 978-80-7357-570-0
3. HRON, J., LHOTSKÁ, B., MACÁK, T. Kybernetika v řízení - příklady a aplikace. Praha, vydavatelství ČZU. 2007. ISBN 978-80-213-1640-9.
4. Introduction to Management Science. Bernard W. Taylor. 2009. ISBN-10 0136064361.
5. Management Science The Art of Modeling with Spreadsheets. Stephen G. Powell. 2010. ISBN 978-0-470-53067-2.

INFORMATION SYSTEMS (ETE49E)

Department of Information Technologies
Faculty of Economics and Management

Lecturer: Ing. Pavel Šimek, Ph.D.
Teaching period: Spring semester
Type subject: Bachelors
ECTS credit: 5.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

This learning is intended for not-informatics specializations. Schedule, syllabus and education objectives stem from Czech version of this course. Information has become one of very important enterprise source, working with information is being grasped to fundamental "computer literacy" of graduates. Leavers of learning "Information Systems" are being acquainted with basic conceptions from area of information, information systems and manage of information systems.

Lectures:

1. Opening Subject
2. Definition and classification of information systems
3. Selection Precedure and Life Cycle of Information System
4. Managing of Enterprise IS and Information Strategy
5. ERP Systems
6. System integration
7. Economics of Information Systems
8. Critical Factors of Building IS
9. Architectures of information systems
10. Net economy
11. EIS and MIS
12. Outsourcing IS

Seminars:

1. MS PowerPoint
2. MS PowerPoint
3. Using of Selected ERP Information System
4. WCA Framework, Case Study
5. Presentations of Team Projects
6. Presentations of Team Projects

Study literature:

1. P. Baltzan. Information Systems / Edition 2. McGraw-Hill Education, 2012. ISBN 0073376868
2. L. Turner, A. Weickgenannt. Accounting Information Systems The Processes and Controls. Wiley, John & Sons, Incorporated, 2013. 662 p. ISBN-13 9781118162309
3. R. Stair Fundamentals of Information Systems. Cengage Learning 2013. 560 p. ISBN-13 9781133629627
4. R. K. Raine, H. J. Watson, B. Prince Management Information Systems. Wiley, John & Sons, Incorporated, 2013. 672 p. ISBN-13 9781118443590

Additional Courses

Syllabi

Additional Courses Programme Syllabi

DEVELOPMENT ECONOMICS

Department of Economics
Faculty of Economics and Management

Lecturer: Ing. Zuzana Křístková, Ph.D.
Teaching period:
Type subject: Bachelor / Master
ECTS credit: 3.0
Assessment: written
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

With the increasing role of globalization and a rising importance of the newly industrialized developing countries in the world economic scene, the development economics deserves its attention as an important branch of economic disciplines.
Whereas the classical theories of economic growth focus on the allocation of scarce resources among their alternative uses, the discipline of the development economics has a wider scope, since it takes into account not only economic, but also social, political and institutional changes that are necessary to achieve growth of living standard, especially in case of the developing countries.

Lectures:

1. Introduction to the concept of development.
2. Theories of economic growth and development
3. Poverty, malnutrition and income inequality.
4. Population growth and economic development.
5. Health, education and human capital.
6. Capital Formation, Communication and Information Technology.
7. Foreign Trade and Development.
8. Agrarian Reform.
9. Sustainable development and environment.
10. Macroeconomic stability in developing countries.

Seminars:

1. Indicators measuring economic growth and development, classification of countries according the level of development.
2. Models of economic growth from the empirical point of view.
3. Demographic transition and population growth in developing countries.
4. Impact of HIV/AIDS on the economic growth.
5. Role of foreign trade in the economic growth – a panel discussion.

Study literature:

1. NAFZIGER, W. E. Economic Development, New York: Cambridge University Press, 2006. 846 s. ISBN 0-521-82966-6.
2. STIGLITZ, J.E., OCAMPO, J.A., SPIEGEL S., FFRENCH –DAVIS, R., NAYYAR, R. Stability with Growth, Macroeconomics, Liberalization and Development. New York: Oxford University Press, 2006. 339 s. ISBN 0-19-928813-5.
3. SACHS, D.J. Common Wealth, Economics for a crowded planet. The Penguin Press, New York, 2008. 386 p. ISBN 978-1-59420-127-1.
4. RAY, D. Development Economics. Princeton University Press, New Jersey, 1998. 848 p. ISBN 978-01-691-01706-8.
5. KRUGMAN P., OBSTFELD, M. International Economics Theory & Policy. New York: Daryl Fox, 2006. 680 s. ISBN 0-321-31154-X.
6. WORLD BANK Global Economic Prospects, Trade, Regionalism, and Development. World Bank: Washington DC, 2005.
7. SANTOS-PAULINO, A.: Trade Liberalisation and Economic Performance in the Dominican Republic, Velká Británie: Working Paper of Institute of Development Studies, Brighton, Sussex, 2003

COMMODITY AND FOREIGN EXCHANGE ECONOMICS

Department of Economics
Faculty of Economics and Management

Lecturer: Ing. Petr Procházka, MSc, Ph.D.
Teaching period:
Type subject: Bachelor / Master
ECTS credit: 3.0
Assessment: written and oral
Marking scale: 4-point scale
Contact hours: 36

Objective and general description:

This course provides a general introduction for the study of foreign exchange and commodity markets from both theoretical and practical standpoint. Study of foreign exchange economics enables the students to understand the basic principles behind foreign exchange and conduct elementary analysis using both fundamental and technical analysis. During this course, students learn how to operate software using various trading platforms with online data.

Lectures:

1. Basics of foreign exchange and commodity economics
2. Economic theory of foreign exchange and commodities
3. Organization of foreign exchange and commodity market
4. Technicalities of foreign exchange and commodity markets
5. Money management techniques
6. Risk management
7. Main currency pairs
8. Rare currency pairs
9. Fundamentals of technical analysis
10. Tools of technical analysis
11. Tools of technical analysis continued
12. Basics of fundamental analysis
13. Tools of fundamental analysis
14. Tools of fundamental analysis continued

Seminars:

1. Basic principles and terminology in foreign exchange and commodity economics
2. Foreign exchange and commodity market transactions
3. Trading platforms introduction
4. Trading software functions and requirements
5. Trading main currency pairs strategies
6. Application of technical analysis
7. Application of fundamental analysis

Study literature:

1. C Jeevanandam, Foreign Exchange: Practice, Concepts, Sultan Chand & Sons, New Delhi
2. Vijayabhaskar P and Mahapatra B., Derivatives Simplified, Respose Books, Sage Publications, New Delhi