

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ IG/04	<b>Course name:</b> Acquirement of Internal Grant
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 10	
<b>Recommended semester/trimester of the course:</b> 6., 8.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 144	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ AMS3/05	<b>Course name:</b> Atomic and Molecular Spectroscopy
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present	
<b>Number of credits:</b> 8	
<b>Recommended semester/trimester of the course:</b> 2.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b> Advanced theoretical and practical knowledge of the methods of atomic and molecular spectroscopy.	
<b>Brief outline of the course:</b> Enhanced information about atomic absorption and emission spectral methods. History of the spectral methods development and their use in analytical practice. Optical analytical methods, principles, classification. Theoretical principles of spectroscopy. Experimental basis of spectral methods. Atomic absorption spectrometry. Atomic emission spectrometry (optical emission spectrometry). Atomic fluorescence spectrometry. Plasma Mass Spectrometry. Mass spectrometry. Spectral methods based on the X-rays observation and observation of the released electrons. Absorption spectroscopy in the visible and UV region. Emission spectroscopy of molecules. Vibration-rotation spectroscopy in analytical chemistry. Infrared and Raman spectrometry, nuclear magnetic resonance, electron paramagnetic resonance: principles, development in analytical chemistry. Automation and miniaturization of spectral methods. Hybrid spectral methods. Organic reagents. Ionic associates with basic dyes.	
<b>Recommended literature:</b> Günzler H., Wiliams A.: Handbook of Analytical Techniques. Wiley-VCH, 2001. Skoog D. A., et al: Principle of Instrumental Analysis, Thomson Brooks/Cole, 2007. Welz B., Sperling M.: Atomic Absorption Spectrometry, Wiley-VCH, 1998. Rios, A. Escarpa, B. Simonet: Miniaturization of Analytical Systems: Principles, Designs and Applications. Wiley, 2009 D. Harvey: Modern Analytical Chemistry, McGraw-Hill Companies, Inc., 2000	
<b>Course language:</b>	
<b>Notes:</b>	

<b>Course assessment</b>	
Total number of assessed students: 12	
N	P
0.0	100.0
<b>Provides:</b> prof. Dr. Yaroslav Bazel', DrSc., doc. Ing. Viera Vojteková, PhD.	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ CZC/04	<b>Course name:</b> Citation in the International Scientific Journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 15	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ CDC/04	<b>Course name:</b> Citation in the Local Scientific Journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	n
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ CM/04	<b>Course name:</b> Citation in the Monograph
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 20	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 2	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ SDPR/04	<b>Course name:</b> Co-worker of a Local Project
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 252	
abs	n
99.6	0.4
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ SMPR/04	<b>Course name:</b> Co-worker of an International Project
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 15	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 24	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ PPC/04	<b>Course name:</b> Direct Pedagogical Activities
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 263	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ DZS/15	<b>Course name:</b> Doctoral Exam
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 4	
N	P
0.0	100.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ EACH3/05	<b>Course name:</b> Electroanalytical Chemistry
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present	
<b>Number of credits:</b> 8	
<b>Recommended semester/trimester of the course:</b> 4.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
N	P
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> CJP/AJD1/07		<b>Course name:</b> English Language for PhD Students 1			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 1.					
<b>Course level:</b> III.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 425					
N	Ne	P	Pr	abs	neabs
0.0	0.0	67.53	0.0	32.47	0.0
<b>Provides:</b> PhDr. Helena Petruňová, CSc., Mgr. Zuzana Kolaříková, PhD.					
<b>Date of last modification:</b> 03.05.2015					
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> CJP/AJD2/07		<b>Course name:</b> English Language for PhD Students 2			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 2.					
<b>Course level:</b> III.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 421					
N	Ne	P	Pr	abs	neabs
0.0	0.0	89.79	1.9	8.31	0.0
<b>Provides:</b> PhDr. Helena Petruňová, CSc., Mgr. Zuzana Kolaříková, PhD., Mgr. Barbara Mitříková					
<b>Date of last modification:</b> 03.05.2015					
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ ACM3/05	<b>Course name:</b> Chemometrics and Experiment Metodics
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present	
<b>Number of credits:</b> 8	
<b>Recommended semester/trimester of the course:</b> 1.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> On the basis of individual work. On the basis of the continuous assesment and examination.	
<b>Learning outcomes:</b> Learning of the basic methodology of experimentation and statistical evaluation of the measurements.	
<b>Brief outline of the course:</b> The basic methodology of experimentation. The sources of the scientific information. Literature search. Choice and classification of scientific journals. The sample treatment. (sampling, measurements, evaluation of results). Knowledge acquisition of the correct and theoretically-based processing and evaluation of results of chemical analysis: Signal Processing; Calibration, Data Processing. Knowledge acquisition of the methods and methodologies for results evaluation. Decision-making statistics. Information about validation of the method, about metrology, and accreditation of the laboratories. Conception of the uncertainties of results and methods. Practical application of the theoretical knowledge gained during the course.	
<b>Recommended literature:</b> Brereton R. G.: Chemometrics, Wiley, 2003. Günzler H., Wiliams A.: Handbook of Analytical Techniques. Wiley-VCH, 2001.	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 16	
N	P
0.0	100.0
<b>Provides:</b> prof. Dr. Yaroslav Bazel', DrSc., doc. Ing. Viera Vojteková, PhD.	
<b>Date of last modification:</b> 03.05.2015	

**Approved:** prof. Dr. Yaroslav Bazel', DrSc.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ CHR3/05	<b>Course name:</b> Chromatographic Separation Methods
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present	
<b>Number of credits:</b> 8	
<b>Recommended semester/trimester of the course:</b> 2.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b> Basic and advanced theory of chromatographic separation methods and their possibilities and use in research and analytical practice.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b> Skoog D.A., Leary J.J., Principles of Instrumental Analysis, Saunders, 1997. Lehotay J., Separačné metódy v analytickej chémii, STU Bratislava 2009.	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 5	
N	P
0.0	100.0
<b>Provides:</b> prof. RNDr. Andrej Oriňak, PhD., doc. RNDr. Taťána Gondová, CSc.	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ IHS3/05	<b>Course name:</b> Identification by mass spectrometry
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present	
<b>Number of credits:</b> 8	
<b>Recommended semester/trimester of the course:</b> 3.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> General principles of mass spectrometry. Analytical mass spectrometry. Detectors in mass spectrometry and resolution. Quadrupoles, ion traps, TOF analyzers. Analytes ionization, molecular spectra obtained from different ion sources. Identification with MS. Determination of molar mass. Fragmentation, spectra, and structural information. Identification by spectra comparison. Total ion current. Monitoring of selected ion/fragment. The use of hyphenated and coupled chromatographic methods. Tandem MS-MS, GC-MSD, HPLC-MS, microcolumn application. MALDI ToF MS, ToF SIMS and methods of surface analysis. Evaluation of mass spectrum.	
<b>Recommended literature:</b> Douglas A.Skoog, James J.Leary : Principles of Instrumental Analysis, 1971, Saunders Publish. Terence A.Lee: A Beginner's Guide to Mass Spectral Interpretation, Wiley, 1998.	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 5	
N	P
0.0	100.0
<b>Provides:</b> prof. RNDr. Andrej Oriňak, PhD.	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/SSOL/04	<b>Course name:</b> Individual Study of Scientific Literature
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 159	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ MK/04	<b>Course name:</b> International Conference
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 146	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ ZKC/04	<b>Course name:</b> International Currented Journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 20	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 179	
abs	n
99.44	0.56
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ ZNC/04	<b>Course name:</b> International Non-Currented Journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 14	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ NEM/04	<b>Course name:</b> Introduction of a New Experimental Method
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 15	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 7	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ DK/04	<b>Course name:</b> Local Conference
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 66	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/DKZU/04	<b>Course name:</b> Local Conference with Foreign Participation
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 142	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ DKC/04	<b>Course name:</b> Local Currented Journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 15	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 9	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ DNC/04	<b>Course name:</b> Local Non-Currented Journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 14	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ POVK/04	<b>Course name:</b> Membership in a Conference organizing Committee
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 26	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ MET3/05	<b>Course name:</b> Metodológia chemickej analýzy environmentálnych systémov a biologických systémov
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present	
<b>Number of credits:</b> 8	
<b>Recommended semester/trimester of the course:</b> 4.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 6	
N	P
0.0	100.0
<b>Provides:</b> prof. Dr. Yaroslav Bazel', DrSc., doc. RNDr. Katarína Reiffová, PhD., prof. Mgr. Vasil' Andruch, CSc.	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ MAS3/05	<b>Course name:</b> Miniaturization of Analytical Systems
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present	
<b>Number of credits:</b> 8	
<b>Recommended semester/trimester of the course:</b> 1.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> Introduction. Classification of sensors. Chemical sensors. Electrochemical sensors . Potentiometric electrochemical sensors. Electrode with liquid membrane. Biosensors. Optical sensors. Application of biosensors in biotechnology. Biosensors for medicine and environment monitoring. Miniaturization of sensors, equipment and devices. Flow injection analysis .	
<b>Recommended literature:</b> 1. Janata J. Principles of Chemical Sensors, Plenum Press, London, 1989. 2. Narayanaswamy R., Wolfbeis O.S. Optical Sensors, Springer, 2004, 421 p.	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 14	
N	P
0.0	100.0
<b>Provides:</b> prof. Dr. Yaroslav Bazel', DrSc., prof. Mgr. Vasil' Andruch, CSc.	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ NZ/04	<b>Course name:</b> Not-Reviewed International or Local Proceedings
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 132	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ ODZP/2014/15	<b>Course name:</b> Obhajoba dizertačnej práce
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 30	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 12	
N	P
0.0	100.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ PVS/04	<b>Course name:</b> Patents, Inventions, Software
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	n
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ VYS/04	<b>Course name:</b> Presentation in Seminar
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 144	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ RZ/04	<b>Course name:</b> Reviewed International or Local Proceedings
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 186	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ VPBP/04	<b>Course name:</b> Review of a Bachelor Thesis
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 44	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ SCI/04	<b>Course name:</b> SCI Citation
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 20	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 78	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> Dek. PF UPJŠ/JSD/14	<b>Course name:</b> Spring School for PhD Students
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> 4d <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 68	
abs	n
100.0	0.0
<b>Provides:</b> doc. RNDr. Vladimír Zeleňák, PhD.	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ ZSP/04	<b>Course name:</b> Study Stay Abroad
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b> 6., 8.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 50	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ VPSV/04	<b>Course name:</b> Supervision of a Students Scientific Work
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b> 6., 8.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 48	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ VBP/04	<b>Course name:</b> Supervision of Bachelor Thesis
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b> 6., 8.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 227	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ TZAC3/05	<b>Course name:</b> Theoretical basics of analytical chemistry
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present	
<b>Number of credits:</b> 8	
<b>Recommended semester/trimester of the course:</b> 1.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> Analytical chemistry. Relationship between analytical chemistry and other scientific branches. History of analytical chemistry. Problems and trends in recent analytical chemistry. Objects of analysis. Instrumental equipment of a modern analytical laboratory. Research analytical chemistry and analytical practice. Validation of analytical methods. Factors important to bear in mind when choosing a proper method. Reasons of improper analytical results. Modern, highly selective methods of analysis. Speed and factors affecting the speed of analysis. Test and screening methods. Field analysis. Primary X-ray spectrometry, microprobe. Non-destructive methods of analysis, principle, utility. Distance analysis. Automation of analysis, examples. Flow analysis – FIA and SIA. Miniaturization of analytical measurements. Economic aspects of analysis. Analytical reaction, chemical equilibrium in solutions. Gravimetric. Volumetric. Instrumental methods of qualitative and quantitative determination of analytes. Absorption and emission spectroscopy, UV-VIS spectrometry, fluorescence and phosphorescence spectrophotometry, emission and atomic absorption spectroscopy, infrared spectrometry, Raman spectroscopy, Roentgen spectroscopic methods, radiochemical methods, NMR spectroscopy, mass spectrometry. Electroanalytical methods (voltamperometry, potentiometry, electroseparation, coulometry and conductometry). Thermal analysis. Kinetic methods of analysis. Separation methods. Microextraction techniques (DLLME, SDME, SPME). Gas chromatography. Liquid chromatography, TLC, HPLC.	
<b>Recommended literature:</b> 1. D. Harvey, Modern Analytical Chemistry, 2000, McGraw-Hill Companies, Inc. 2. H.H. Willard, L.L. Merritt, J.A. Dean, F.A. Settle, Instrumental Methods of Analysis, 1988, Wadsworth Publ. Co. 3. A. Rios, A. Escarpa, B. Simonet, Miniaturization of Analytical Systems, 2009, John Wiley & Sons, Ltd. 4. Jaromír Ružicka, Elo Harald Hansen, Flow Injection Analysis, 1988, John Wiley & Sons. 5. John R. Dean, Extraction Techniques in Analytical Sciences, 2009, John Wiley & Sons.	
<b>Course language:</b>	

<b>Notes:</b>	
<b>Course assessment</b>	
Total number of assessed students: 20	
N	P
0.0	100.0
<b>Provides:</b> prof. RNDr. Andrej Oriňak, PhD., prof. Dr. Yaroslav Bazel', DrSc., doc. RNDr. Tat'ána Gondová, CSc., doc. RNDr. Katarína Reiffová, PhD., doc. Ing. Viera Vojteková, PhD., prof. Mgr. Vasil' Andruch, CSc.	
<b>Date of last modification:</b> 03.05.2015	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚCHV/ PDS/14	<b>Course name:</b> Writing Dissertation Work
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 15	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 10	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b>	
<b>Approved:</b> prof. Dr. Yaroslav Bazel', DrSc.	