

Course descriptions

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COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FFP-203/15		Course title: Bio-medical Applications of Plasmas and Radiation			
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning, distance learning					
Number of credits: 10					
Recommended semester: 2.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 6					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: doc. RNDr. Zdenko Machala, PhD.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/3-MXX-101/15		Course title: Course of English for PhD Studies (1)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning, distance learning					
Number of credits: 5					
Recommended semester: 1.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 27					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: PhDr. Alena Zemanová					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/3-MXX-102/15		Course title: Course of English for PhD Studies (1)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning, distance learning					
Number of credits: 5					
Recommended semester: 2.					
Educational level: III.					
Prerequisites: FMFI.KJP/3-MXX-101/15 - Course of English for PhD Studies (1)					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 38					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: PhDr. Alena Zemanová					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-806/10		Course title: Creation of Teaching Texts and Aids			
Educational activities: Type of activities: independent work Number of hours: per week: 5 per level/semester: 70 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 6					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-404/15		Course title: Department Seminar in the Summer Semester			
Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 31					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Tibor Hianik, DrSc.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-203/15		Course title: Department Seminar in the Winter Semester			
Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 45					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Tibor Hianik, DrSc.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-709/10		Course title: Development of Novel Software Product Linked with PhD Project			
Educational activities: Type of activities: independent work Number of hours: per week: 10 per level/semester: 140 Form of the course: on-site learning					
Number of credits: 20					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 2					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

STATE EXAM DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KJFB/3-FBF-990/15	Course title: Dissertation Thesis Defense
Number of credits: 30	
Recommended semester: 7., 8..	
Educational level: III.	
State exam syllabus:	
Last change: 02.06.2015	
Approved by: prof. RNDr. Tibor Hianik, DrSc.	

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-004/00		Course title: Effect of Light on Living Organisms			
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester: 1.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Solar radiation and artificial light sources. Reflection, scattering and absorption of light radiation by components of living organisms. Intrinsic chromophores and fluorophores. Phototherapy, Photodiagnostics, Photosterilization, Extrinsic chromophores and fluorophores in therapy and diagnostics.					
Recommended literature: B. Birks (Ed.): Organic Molecular Photophysics, Arrowsmith, Bristol, 1973 J. R. Lakowicz: Principles of Fluorescence Spectroscopy, Plenum Press, New York and London, 1983 // ruský preklad: Osnovy fluorescentnoj spektroskopii, Mir, Moskva, 1986 G. Britton: The Biochemistry of Natural Pigments, Cambridge University Press, Cambridge, 1983 Ľ. Lapčík, P. Pelikán, M. Čepan: Fotochemické procesy, Alfa, Bratislava, 1989 H. Berlien, G. Muller (Eds.): Angewandte Lasermedizin, Ecomed, Landsberg, 1989 // ruský preklad: Příkladnaja Lasernaja medicina, Intereksper, Moskva, 1997 R. J. H. Clark, R. E. Hester: Biomedical Applications of Spectroscopy, Wiley, New York, 1996 J.M. Hollas: Modern Spectroscopy, Wiley, New York, 2004 R. Kraayenhof, A.J.W.G. visser, H.C. Gerritsen (eds.): Fluorescence Spectroscopy, Imaging and Probes, Springer, Berlin, 2002 UV-VIS Spectroscopy and its Applications, Springer, Berlin, 1992					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 17					
A	B	C	D	E	FX
94,12	0,0	0,0	0,0	0,0	5,88

Lecturers: prof. RNDr. Libuša Šikurová, CSc.
Last change: 02.06.2015
Approved by: prof. RNDr. Tibor Hianik, DrSc.

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KJFB/3-FBF-003/00	Course title: Experimental Methods of Biophysics
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning	
Number of credits: 10	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus: Scattering and diffraction of X-ray, electrons and neutrons (Symmetry of crystals, cylindrical and helical objects, symmetry of viruses. Determination of the structure of crystals, problem of phase. Determination of the structure of amorphous substances and partially oriented systems. Preparation of samples for measurement. Experimental set up, available sources of synchrotron and neutron radiation) Magnetic resonance methods (Magnetic resonance in a condensed matter. Nuclear magnetic resonance, electron paramagnetic resonance. Continual and pulse methods. Multiple resonance methods. Spectral methods, imaging methods and their combination. Preparation of samples and living objects for measurement. Experimental techniques, availability of experimental instruments). Electron microscopy (Transmission and raster microscopy, electron optics. Preparation of samples for measurements. Reconstruction of the structure from micrographs. Experimental technique) Ion microscopy. Light microscopy. (Transmission and reflection microscopy, in monochromatic, UV and IR light. Fluorescence, polarized and interference microscopy. Spatial reconstruction, stereology and analysis of images. Cytophotometry, autoradiography and autoradiography). Optical spectroscopy (Light sources, spectral analysis, detectors of optical radiation. Absorption spectroscopy and Raman spectroscopy. Chiroptical methods. Emission spectroscopy) Light scattering (Statics and dynamics light scattering and its application for determination of the shape of biological objects) Preparative and analytical methods (Extraction, aggregation, sedimentation, membrane methods, chromatographic methods, electrophoresis, crystallization, lipophilization, solubilization. Determination of molecular weight.	
Recommended literature: V. Prosser et al.: Experimental methods of biophysics. Academia, Praha, 1989 Original and review articles from scientific journal of biophysical orientation according to selection of lecturer and according to actual interest of the students.	
Languages necessary to complete the course:	

Notes:					
Past grade distribution					
Total number of evaluated students: 14					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Daniela Uhríková, CSc.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-703/10		Course title: Home Project Co-researcher			
Educational activities: Type of activities: independent work Number of hours: per week: 10 per level/semester: 140 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 31					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-101/10		Course title: Individual Study of Science and Research Resources (2)			
Educational activities: Type of activities: independent work Number of hours: per week: 10 per level/semester: 140 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 35					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-104/10		Course title: Individual Study of Science and Research Resources (2)			
Educational activities: Type of activities: independent work Number of hours: per week: 10 per level/semester: 140 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 37					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-702/10		Course title: International Project Co-researcher			
Educational activities: Type of activities: independent work Number of hours: per week: 10 per level/semester: 140 Form of the course: on-site learning					
Number of credits: 15					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 15					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-708/10		Course title: Introduction of Novel Experimental Method Linked with PhD Project			
Educational activities: Type of activities: independent work Number of hours: per week: 10 per level/semester: 140 Form of the course: on-site learning					
Number of credits: 20					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 2					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-012/15		Course title: Methods for Preparation and Implementation of Research Projects			
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester: 4.					
Educational level: III.					
Prerequisites:					
Antirequisites: FMFI.KJFB/3-FBF-012/11					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 9					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: doc. RNDr. Iveta Waczulíková, PhD.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-001/00		Course title: Molecular Biophysics			
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester: 2.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Biophysics of proteins and nucleic acids. Membrane structure and physical properties. Biophysics and thermodynamics of membranes, theory of phase transitions, mechanical properties of membranes. Mechanisms of ion transport. Signal transduction across membranes.					
Recommended literature: C.R. Cantor, P.R. Schimmel, Biophysical Chemistry, W.H. Freeman and Co., 1980 T. Hianik, V.I. Passechnik, Bilayer Lipid Membranes“ Structure and Mechanical Properties. Kluwer Acad. Publ. 1995 B. Alberts et al. Essential Cell Biology, Garland Publishing, 1998 M. Shinitzky (Ed.) Biomembranes, VCH, Vol.1 (1993), Vol. 2 (1994), Vol. 3 (1995)					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 21					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Tibor Hianik, DrSc.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-013/11		Course title: Molecular Design			
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester: 4.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 6					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: doc. Ing. Vladimír Frečer, DrSc.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-007/00		Course title: Molecular Dynamics of Biological Systems			
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester: 2.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Molecular dynamics (MD), algorithms and methods in MD, interactions in molecular systems, their calculations, forcefield, analysis of results. Modeling of lipid bilayer, peptides, study of the mechanisms of interactions in lipid bilayer.					
Recommended literature: O. Becker et al. Computational Biochemistry and Biophysics, Dekker, 2000					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 7					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Ján Urban, DrSc.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-701/10		Course title: Obtaining a University Grant			
Educational activities: Type of activities: independent work Number of hours: per week: 20 per level/semester: 280 Form of the course: on-site learning					
Number of credits: 20					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 20					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

STATE EXAM DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KJFB/3-FBF-950/15	Course title: Passing Dissertation Examination
Number of credits: 20	
Recommended semester: 3., 4..	
Educational level: III.	
State exam syllabus:	
Last change: 02.06.2015	
Approved by: prof. RNDr. Tibor Hianik, DrSc.	

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-403/10		Course title: Presentation at a Home Conference			
Educational activities: Type of activities: independent work Number of hours: per week: 5 per level/semester: 70 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 10					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-401/15		Course title: Presentation at an International Conference			
Educational activities: Type of activities: independent work Number of hours: per week: 10 per level/semester: 140 Form of the course: on-site learning					
Number of credits: 20					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 35					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-302/15		Course title: Publication in a Reviewed Periodical or Reviewed Almanac			
Educational activities: Type of activities: independent work Number of hours: per week: 15 per level/semester: 210 Form of the course: on-site learning					
Number of credits: 30					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 2					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-301/15		Course title: Publication in an A-category Periodical			
Educational activities: Type of activities: independent work Number of hours: per week: 20 per level/semester: 280 Form of the course: on-site learning					
Number of credits: 35					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 15					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-706/15		Course title: Response to a Publication			
Educational activities: Type of activities: other Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-704/15		Course title: Response to a SCI-, WoK- or SCOPUS-registered Publication			
Educational activities: Type of activities: other Number of hours: per week: 6 per level/semester: 84 Form of the course: on-site learning					
Number of credits: 4					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 6					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-005/00		Course title: Selected Chapters from Human Biomechanics			
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester: 1.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Cell biomechanics, biomechanics of bones and muscles, elastic properties of body fluids and vascular system, breathing mechanics, mechanics of digestion tract, lungs, and cerebral tissue. Biomechanics of hearing and functions of ear. Applications of biomechanics in a medicine.					
Recommended literature: Vogel J. Biomechanics, Princeton, University Press, 2003. Valenta J. Biomechanics, Academia and Kluwer Academic Publishers, 2002. http://en.wikipedia.org/wiki/Biomechanics					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 6					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Melánia Babincová, DrSc.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-802/15		Course title: Teaching Practice in the Summer Semester			
Educational activities: Type of activities: other Number of hours: per week: 8 per level/semester: 112 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 18					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/3-FBF-801/15		Course title: Teaching Practice in the Winter Semester			
Educational activities: Type of activities: other Number of hours: per week: 8 per level/semester: 112 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 22					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-002/00		Course title: Theoretical Methods of the Study the Molecular Systems			
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester: 1.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The study of statical properties: Quantum mechanic description of energetic and reactivity of molecules (HF, post HF and DFT methods, semi empirical methods, methods of molecular mechanics, combined methods). Study of dynamical properties: Methods of molecular dynamics, Monte Carlo methods, analysis of the results of simulations, methods of classical and quasi classical trajectories.					
Recommended literature: O.Becker et al. Computational Biochemistry and Biophysics, Dekker, 2000 A. Szabo N. S. Ostlund: Modern Quantum Chemistry: Introduction to Advanced Electronic Structure Theory P.W. Atkins: Molecular Quantum Mechanics, Oxford Univ. Press, 1970					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 18					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: prof. Ing. Pavel Mach, CSc., prof. RNDr. Ján Urban, DrSc.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/3-FBF-808/15		Course title: Writing Final Thesis Assessment Protocol			
Educational activities: Type of activities: independent work Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 4					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. RNDr. Tibor Hianik, DrSc.					