

Course descriptions

TABLE OF CONTENTS

1. 3-FKLfu-104/14	Computation methods in solid state physics.....	2
2. 3-MXX-101/15	Course of English for PhD Studies (1).....	3
3. 3-MXX-102/15	Course of English for PhD Studies (1).....	4
4. 3-FKL-950/15	Dissertation Examination (state exam).....	5
5. 3-FKL-990/15	Dissertation Thesis Defense (state exam).....	6
6. 3-FKL-003/15	Electrons in Disordered and Mesoscopic Systems.....	7
7. 3-FKLfu-103/14	Experimental methods of research into phase transformations in solid materials.....	8
8. 3-FKL-401/10	Foreign Periodical Cited in Current Contents.....	9
9. 3-FKL-402/10	Home Journal Cited in Current Contents.....	10
10. 3-FKL-102/15	Individual Study of Resources (1).....	11
11. 3-FKL-103/15	Individual Study of Resources (2).....	12
12. 3-FKL-005/15	Modern Trends in Condensed Matter Physics and Acoustics.....	13
13. 3-FKLfu-101/14	Nanoparticles and nanostructures.....	14
14. 3-FKL-701/10	Obtaining a University Grant.....	15
15. 3-FKL-007/15	Quantum Simulations in Condensed Matter.....	16
16. 3-FKL-702/10	Quotation Registered in SCI or SCOPUS.....	17
17. 3-FKL-302/10	Research Work.....	18
18. 3-FKL-303/10	Research Work.....	19
19. 3-FKL-304/10	Research Work.....	20
20. 3-FKL-305/10	Research Work.....	21
21. 3-FKL-306/10	Research Work.....	22
22. 3-FKL-403/10	Reviewed Foreign Papers Volume.....	23
23. 3-FKL-404/10	Reviewed Home Papers Volume.....	24
24. 3-FKLfu-102/14	Structural analysis of nanocrystalline systems.....	25
25. 3-FKL-801/10	Teaching Activities.....	26
26. 3-FKL-802/10	Teaching Activities.....	27
27. 3-FKL-803/10	Teaching Activities.....	28
28. 3-FKL-804/10	Teaching Activities.....	29
29. 3-FKL-805/10	Teaching Activities.....	30
30. 3-FKL-806/10	Teaching Activities.....	31
31. 3-FKL-807/10	Teaching Activities.....	32
32. 3-FKL-808/10	Teaching Activities.....	33
33. 3-FKL-006/15	Theory of Condensed Matter.....	34

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KEF/3-FKLfu-104/14		Course title: Computation methods in solid state physics			
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: 10					
Recommended semester: 2., 4., 6.					
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: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: RNDr. Marián Krajčí, DrSc.					
Last change: 02.06.2015					
Approved by: prof. Ing. Ivan Štich, 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. Ing. Ivan Štich, 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. Ing. Ivan Štich, DrSc.					

STATE EXAM DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KEF/3-FKL-950/15	Course title: Dissertation Examination
Number of credits: 20	
Recommended semester: 3., 4..	
Educational level: III.	
State exam syllabus:	
Last change: 02.06.2015	
Approved by: prof. Ing. Ivan Štich, DrSc.	

STATE EXAM DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KEF/3-FKL-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. Ing. Ivan Štich, DrSc.	

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KEF/3-FKL-003/15		Course title: Electrons in Disordered and Mesoscopic Systems			
Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester: 2.					
Educational level: III.					
Prerequisites:					
Antirequisites: FMFI.KEF/3-FKL-003/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 17					
A	B	C	D	E	FX
88,24	5,88	5,88	0,0	0,0	0,0
Lecturers: doc. RNDr. Martin Moško, DrSc.					
Last change: 02.06.2015					
Approved by: prof. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KEF/3-FKLfu-103/14		Course title: Experimental methods of research into phase transformations in solid materials			
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: 10					
Recommended semester: 2., 4., 6.					
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: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: Ing. Peter Švec, DrSc.					
Last change: 02.06.2015					
Approved by: prof. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-401/10		Course title: Foreign Periodical Cited in Current Contents			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 17					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-402/10		Course title: Home Journal Cited in Current Contents			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change: 02.06.2015					
Approved by: prof. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KEF/3-FKL-102/15		Course title: Individual Study of Resources (1)			
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: 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: 8					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change:					
Approved by: prof. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KEF/3-FKL-103/15		Course title: Individual Study of 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: 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: 3					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers:					
Last change:					
Approved by: prof. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KEF/3-FKL-005/15		Course title: Modern Trends in Condensed Matter Physics and Acoustics			
Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 10					
Recommended semester: 3.					
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: 12					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Peter Kúš, DrSc., prof. RNDr. Andrej Plecenik, DrSc.					
Last change: 02.06.2015					
Approved by: prof. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KEF/3-FKLfu-101/14		Course title: Nanoparticles and nanostructures			
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: 10					
Recommended semester: 2., 4., 6.					
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: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: RNDr. Eva Majková, DrSc.					
Last change: 02.06.2015					
Approved by: prof. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-701/10		Course title: Obtaining a University Grant			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-007/15		Course title: Quantum Simulations in Condensed Matter			
Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 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: 4					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: prof. Ing. Roman Martoňák, DrSc.					
Last change: 02.06.2015					
Approved by: prof. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-702/10		Course title: Quotation Registered in SCI or SCOPUS			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 3					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-302/10		Course title: Research Work			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 10					
Recommended semester: 3.					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-303/10		Course title: Research Work			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 20					
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: 14					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-304/10		Course title: Research Work			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 25					
Recommended semester: 5.					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-305/10		Course title: Research Work			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 25					
Recommended semester: 6.					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-306/10		Course title: Research Work			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 25					
Recommended semester: 7.					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-403/10		Course title: Reviewed Foreign Papers Volume			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 25					
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: 4					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KEF/3-FKL-404/10		Course title: Reviewed Home Papers Volume			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 7					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KEF/3-FKLfu-102/14		Course title: Structural analysis of nanocrystalline systems			
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: 10					
Recommended semester: 2., 4., 6.					
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: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: Ing. Peter Švec, DrSc.					
Last change: 02.06.2015					
Approved by: prof. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-801/10		Course title: Teaching Activities			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 2					
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: 13					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-802/10		Course title: Teaching Activities			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 2					
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: 12					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-803/10		Course title: Teaching Activities			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 3.					
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: 12					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-804/10		Course title: Teaching Activities			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 2					
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: 9					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-805/10		Course title: Teaching Activities			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 5.					
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: 9					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-806/10		Course title: Teaching Activities			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 6.					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-807/10		Course title: Teaching Activities			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 7.					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKEF/3-FKL-808/10		Course title: Teaching Activities			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 8.					
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: 5					
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. Ing. Ivan Štich, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFLKEF/3-FKL-006/15	Course title: Theory of Condensed Matter
Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning, distance learning	
Number of credits: 10	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Recommended prerequisites: 2-FTL-107 Structure and mechanical properties of solids AND 2-FTL-108 Electronic and optical properties of solids AND 2-FTL-205 Many body physics	
Course requirements: homeworks + oral exam A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 55/45	
Learning outcomes: The students will become fluent in the language of the quantum field theory and its applications to condensed matter physics.	
Class syllabus: Linear response theory. Green's functions: relation to observables, formal properties. Perturbation theory and Feynman diagrams. Adiabatic continuity and renormalization group. Non-perturbative methods: variational methods and effective Hamiltonians. Formal results will be illustrated by examples from quantum magnetism, superconductivity, correlated electrons, and/or coupled electron-phonon problems, upon agreement with the students.	
Recommended literature: Condensed matter physics : Corrected printing / Michael P. Marder. New York : John Wiley, 2000 Principles of condensed matter physics / P. M. Chaikin, T. C. Lubensky. Cambridge : Cambridge University Press, 1995	
Languages necessary to complete the course: english	
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: doc. RNDr. Richard Hlubina, DrSc.					
Last change: 18.10.2016					
Approved by: prof. Ing. Ivan Štich, DrSc.					