

## Course descriptions

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## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KJP/3-MXX-101/15		<b>Course title:</b> Course of English for PhD Studies (1)			
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week:</b> 2 <b>per level/semester:</b> 28 <b>Form of the course:</b> on-site learning, distance learning					
<b>Number of credits:</b> 5					
<b>Recommended semester:</b> 1.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 50					
A	B	C	D	E	FX
92,0	2,0	0,0	0,0	6,0	0,0
<b>Lecturers:</b> PhDr. Alena Zemanová					
<b>Last change:</b> 22.02.2019					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFI.KJP/3-MXX-102/15		<b>Course title:</b> Course of English for PhD Studies (1)			
<b>Educational activities:</b> <b>Type of activities:</b> practicals <b>Number of hours:</b> <b>per week:</b> 2 <b>per level/semester:</b> 28 <b>Form of the course:</b> on-site learning, distance learning					
<b>Number of credits:</b> 5					
<b>Recommended semester:</b> 2.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b> FMFI.KJP/3-MXX-101/15 - Course of English for PhD Studies (1)					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 55					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> PhDr. Alena Zemanová					
<b>Last change:</b> 22.02.2019					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## STATE EXAM DESCRIPTION

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

## STATE EXAM DESCRIPTION

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

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KEF/3-FKL-003/15		<b>Course title:</b> Electrons in Disordered and Mesoscopic Systems			
<b>Educational activities:</b> <b>Type of activities:</b> lecture / seminar <b>Number of hours:</b> <b>per week:</b> 2 / 2 <b>per level/semester:</b> 28 / 28 <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 10					
<b>Recommended semester:</b> 2.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 3					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. RNDr. Martin Moško, DrSc.					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KEF/3-FKL-401/10		<b>Course title:</b> Foreign Periodical Cited in Current Contents			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 35					
<b>Recommended semester:</b>					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 21					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KEF/3-FKL-402/10		<b>Course title:</b> Home Journal Cited in Current Contents			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 30					
<b>Recommended semester:</b>					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					



## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KEF/3-FKL-102/15		<b>Course title:</b> Individual Study of Resources (1)			
<b>Educational activities:</b> <b>Type of activities:</b> independent work <b>Number of hours:</b> <b>per week:</b> 10 <b>per level/semester:</b> 140 <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 10					
<b>Recommended semester:</b> 1.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 12					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b>					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFI.KEF/3-FKL-103/15		<b>Course title:</b> Individual Study of Resources (2)			
<b>Educational activities:</b> <b>Type of activities:</b> independent work <b>Number of hours:</b> <b>per week:</b> 10 <b>per level/semester:</b> 140 <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 10					
<b>Recommended semester:</b> 2.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 9					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b>					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFI.KEF/3-FKL-005/15		<b>Course title:</b> Modern Trends in Condensed Matter Physics and Acoustics			
<b>Educational activities:</b> <b>Type of activities:</b> lecture / seminar <b>Number of hours:</b> <b>per week:</b> 2 / 2 <b>per level/semester:</b> 28 / 28 <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 10					
<b>Recommended semester:</b> 3.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 2					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. RNDr. Peter Kúš, DrSc., prof. RNDr. Andrej Plecenik, DrSc.					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KEF/3-FKL-701/10		<b>Course title:</b> Obtaining a University Grant			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 20					
<b>Recommended semester:</b>					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 9					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-007/15		<b>Course title:</b> Quantum Simulations in Condensed Matter			
<b>Educational activities:</b> <b>Type of activities:</b> lecture / seminar <b>Number of hours:</b> <b>per week:</b> 2 / 2 <b>per level/semester:</b> 28 / 28 <b>Form of the course:</b> on-site learning, distance learning					
<b>Number of credits:</b> 10					
<b>Recommended semester:</b> 2.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 7					
A	B	C	D	E	FX
85,71	14,29	0,0	0,0	0,0	0,0
<b>Lecturers:</b> prof. Ing. Roman Martoňák, DrSc.					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-702/10		<b>Course title:</b> Quotation Registered in SCI or SCOPUS			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 4					
<b>Recommended semester:</b>					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 5					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-302/10		<b>Course title:</b> Research Work			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 10					
<b>Recommended semester:</b> 3.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 18					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-303/10		<b>Course title:</b> Research Work			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 20					
<b>Recommended semester:</b> 4.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 17					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					



## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KEF/3-FKL-304/10		<b>Course title:</b> Research Work			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 25					
<b>Recommended semester:</b> 5.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 19					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-305/10		<b>Course title:</b> Research Work			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 25					
<b>Recommended semester:</b> 6.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 21					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-306/10		<b>Course title:</b> Research Work			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 25					
<b>Recommended semester:</b> 7.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 24					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-403/10		<b>Course title:</b> Reviewed Foreign Papers Volume			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 25					
<b>Recommended semester:</b>					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 5					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KEF/3-FKL-404/10		<b>Course title:</b> Reviewed Home Papers Volume			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 20					
<b>Recommended semester:</b>					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 9					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-801/10		<b>Course title:</b> Teaching Activities			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 1.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 15					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KEF/3-FKL-802/10		<b>Course title:</b> Teaching Activities			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 2.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 15					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-803/10		<b>Course title:</b> Teaching Activities			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 3.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 12					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					



## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KEF/3-FKL-804/10		<b>Course title:</b> Teaching Activities			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 4.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 10					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-805/10		<b>Course title:</b> Teaching Activities			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 5.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 9					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-806/10		<b>Course title:</b> Teaching Activities			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 6.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 6					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFLKEF/3-FKL-807/10		<b>Course title:</b> Teaching Activities			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 7.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 7					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava					
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics					
<b>Course ID:</b> FMFL.KEF/3-FKL-808/10		<b>Course title:</b> Teaching Activities			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning					
<b>Number of credits:</b> 2					
<b>Recommended semester:</b> 8.					
<b>Educational level:</b> III.					
<b>Prerequisites:</b>					
<b>Course requirements:</b>					
<b>Learning outcomes:</b>					
<b>Class syllabus:</b>					
<b>Recommended literature:</b>					
<b>Languages necessary to complete the course:</b>					
<b>Notes:</b>					
<b>Past grade distribution</b> Total number of evaluated students: 5					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>					
<b>Last change:</b> 02.06.2015					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					

## COURSE DESCRIPTION

<b>University:</b> Comenius University in Bratislava	
<b>Faculty:</b> Faculty of Mathematics, Physics and Informatics	
<b>Course ID:</b> FMFLKEF/3-FKL-006/15	<b>Course title:</b> Theory of Condensed Matter
<b>Educational activities:</b> <b>Type of activities:</b> lecture / seminar <b>Number of hours:</b> <b>per week:</b> 2 / 2 <b>per level/semester:</b> 28 / 28 <b>Form of the course:</b> on-site learning, distance learning	
<b>Number of credits:</b> 10	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Recommended prerequisites:</b> 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	
<b>Course requirements:</b> homeworks + oral exam A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 55/45	
<b>Learning outcomes:</b> The students will become fluent in the language of the quantum field theory and its applications to condensed matter physics.	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> 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	
<b>Languages necessary to complete the course:</b> english	
<b>Notes:</b>	

<b>Past grade distribution</b>					
Total number of evaluated students: 20					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> doc. RNDr. Richard Hlubina, DrSc.					
<b>Last change:</b> 18.10.2016					
<b>Approved by:</b> prof. RNDr. Peter Kúš, DrSc.					