

Course descriptions

TABLE OF CONTENTS

1. 3-FMK-009/00 Atmospheric Chemistry.....	2
2. 3-FMK-803/10 BSc Thesis Supervision.....	3
3. 3-FMK-005/00 Boundary Atmospheric Layer Physics.....	4
4. 3-FMK-004/00 Climate Change, Their Causes and Consequences.....	5
5. 3-FMK-501/10 Completion of PhD Research Project Stage.....	6
6. 3-FMK-806/10 Creation of Teaching Texts and Aids.....	7
7. 3-FMK-809/10 Diploma Thesis Guidance.....	8
8. 3-FMK-950/15 Dissertation Examination (state exam).....	9
9. 3-FMK-990/15 Dissertation Thesis Admission (state exam).....	10
10. 3-FMK-002/00 Earth's Climate System Physics.....	11
11. 3-FMK-301/10 Foreign Periodical Cited in Current Contents.....	13
12. 3-FMK-303/10 Foreign Periodical not Cited in Current Contents.....	14
13. 3-FMK-804/10 Guidance of the Students' Research Project.....	15
14. 3-FMK-302/10 Home Journal Cited in Current Contents.....	16
15. 3-FMK-304/10 Home Journal not Cited in Current Contents.....	17
16. 3-FMK-703/10 Home Project Co-researcher.....	18
17. 3-FMK-101/10 Individual Study of Science and Research Resources.....	19
18. 3-FMK-102/10 Individual Study of Science and Research Resources.....	20
19. 3-FMK-702/10 International Project Co-researcher.....	21
20. 3-FMK-007/00 Microclimatology.....	22
21. 3-FMK-307/10 Non-reviewed Foreign Papers Volume.....	24
22. 3-FMK-308/10 Non-reviewed Home Papers Volume.....	25
23. 3-FMK-003/00 Objects of the Synoptic Analysis and the Forecast of the Selected Characteristics State of the Atmosphere.....	26
24. 3-FMK-701/10 Obtaining a University Grant.....	27
25. 3-FMK-805/10 Participation in a Conference Organising Committee.....	28
26. 3-FMK-404/10 Presentation at a Department Seminar.....	29
27. 3-FMK-403/10 Presentation at a Home Conference.....	30
28. 3-FMK-402/10 Presentation at a Home Conference with International Participation.....	31
29. 3-FMK-401/10 Presentation at an International Conference.....	32
30. 3-FMK-704/10 Quotation Registered in SCI or SCOPUS.....	33
31. 3-FMK-707/10 Quotation in a Home Scientific Journal.....	34
32. 3-FMK-705/10 Quotation in a Monograph.....	35
33. 3-FMK-706/10 Quotation in a Scientific Journal Abroad.....	36
34. 3-FMK-006/00 Regional Climatology.....	37
35. 3-FMK-305/10 Reviewed Foreign Papers Volume.....	38
36. 3-FMK-306/10 Reviewed Home Papers Volume.....	39
37. 3-FMK-001/00 Selected Chapters from Dynamic Meteorology.....	40
38. 3-FMK-807/10 Study Stay Abroad.....	41
39. 3-FMK-801/10 Supervising and Demonstrating Work.....	42
40. 3-FMK-802/10 Supervising and Demonstrating Work.....	43
41. 3-FMK-008/00 Weather Forecast Based on Numerical Meteorological Models.....	44
42. 3-FMK-808/10 Writing Diploma Thesis Assessment Protocol.....	45

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3- FMK-009/00		Course title: Atmospheric Chemistry			
Educational activities: Type of activities: lecture Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 6					
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: 2					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: RNDr. Martin Kremler, PhD.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-803/10		Course title: BSc Thesis Supervision			
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:					
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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3- FMK-005/00		Course title: Boundary Atmospheric Layer Physics			
Educational activities: Type of activities: lecture Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning, distance learning					
Number of credits: 6					
Recommended semester: 3.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Turbulent state of the atmosphere, the vertical profiles of some meteorological elements in the boundary and surface atmospheric layers, model computation of the energy balance components, motion equations for average input parameters. Outline covers generally whole contemporary scope of this lecture. Choice from given themes make supervisor in compliance with thesis.					
Recommended literature: Tomlain, J., Damborská I.: Fyzika hraničnej vrstvy atmosféry. Univerzita Komenského, Bratislava 1999, 132 s. Bednář J., Zikmunda, O.: Fyzika mezní vrstvy atmosféry. Academia, Praha 1985, 248 s. Yournal „Boundary Layer Meteorology“ Contributions in the foreign special and scientific yournals					
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: doc. RNDr. Martin Gera, PhD., RNDr. Ingrid Damborská, CSc.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3- FMK-004/00		Course title: Climate Change, Their Causes and Consequences			
Educational activities: Type of activities: lecture Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 3.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Climate changes theory from pre-Cambrian to Pleistocene epoch. Climate changes in Holocene epoch – paleoclimatological reconstruction. Climate changes and climate variability in last millennium. Physical and other causes of climate changes in past and in present. Anthropogenic caused climate change. Climate system modeling. Climate change scenarios in 21st century. Possible consequences of climate change – historical analysis and model access to assessment of consequences in the future. Schema approximately covers all contemporary extent of this object. Selection from these topics will be made by adviser according to dizertation thesis theme.					
Recommended literature: Scientific contributions in world journals Basis prepared by IPCC (www.ipcc.ch)					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 2					
A	B	C	D	E	FX
50,0	50,0	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Milan Lapin, CSc., RNDr. Marián Melo, PhD.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-501/10		Course title: Completion of PhD Research Project Stage			
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:					
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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3- FMK-806/10		Course title: Creation of Teaching Texts and Aids			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-809/10		Course title: Diploma Thesis Guidance			
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: 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. Miroslav Grajcar, DrSc.					

STATE EXAM DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAFZM/3- FMK-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. RNDr. Miroslav Grajcar, DrSc.	

STATE EXAM DESCRIPTION

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

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3- FMK-002/00		Course title: Earth's Climate System Physics			
Educational activities: Type of activities: lecture Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning					
Number of credits: 8					
Recommended semester: 1.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Earth's climate system: atmosphere, hydrosphere, cryosphere, lithosphere, biosphere and noosphere, temporal and areasl distribution of mentioned sub/systems. Climate forming factors: astronomic, circulationl, geographic and anthropogenic. Physical processes existing in the Earth's climate system – concise overview. Radiation balance of the Earth, energetic balance of the Earth, general circulation of the atmosphere and the oceans, interactions and feedbacks among Earth's climate system components (mainly between the atmosphere and hydrosphere (oceans, seas, lakes, water in the lithosphere, water in the atmosphere etc.) and between the atmosphere and cryosphere (polar glaciers, snow cover, sea ice, permafrost). Role of atmospheric chemistry in the physical processes influencing the climate system. This syllabus cover generally all subject, the supervisor will select some of the themes for more detail study based on the Disertation thesis theme.					
Recommended literature: Papers in scientific and professional journals. Peixoto, J., P., Oort, A., H (1992): Physics of Climate. American Institute of Physics, Springer, New York, 520 pp. Journal of Climatology. American Meteorological Society, USA.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 12					
A	B	C	D	E	FX
75,0	25,0	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Milan Lapin, CSc.					

Last change: 02.06.2015
Approved by: prof. RNDr. Miroslav Grajcar, DrSc.

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3- FMK-301/10		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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-303/10		Course title: Foreign Periodical not 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: 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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-804/10		Course title: Guidance of the Students' Research Project			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 7					
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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-302/10		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: 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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-304/10		Course title: Home Journal not 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: 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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-703/10		Course title: Home Project Co-researcher			
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:					
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: 11					
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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-101/10		Course title: Individual Study of Science and Research Resources			
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:					
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: 16					
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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-102/10		Course title: Individual Study of Science and Research Resources			
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:					
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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-702/10		Course title: International Project Co-researcher			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3- FMK-007/00		Course title: Microclimatology			
Educational activities: Type of activities: lecture Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 2.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: A concept for microclimate and definition of the microclimatology. Methods in the microclimatology. The mass and energy exchange between the land surface and the atmosphere. Microclimatic effects of the land surface. Interrelations between the land surface and the atmosphere in the local and regional scales. Mathematical modeling of genesis and dynamics of the microclimate. Microclimate of the plant cover. Effects of human activities on the microclimate. The syllabus covers generally the whole current scope of the subject. A selection from the given topics will be performed by the supervisor in compliance with the orientation of thesis.					
Recommended literature: ARYA, S. P., Introduction to Micrometeorology. Academic Press, New York, 2001. GEIGER, R., ARON, R. H., TODHUNTER P.: Climate Near the Ground. Vieweg, Braunschweig, 1995. MONTEITH, J. L.: Vegetation and the Atmosphere. London, Academic Press, 1976. ŠAMAJ, F. – PROŠEK, P. – ČABAJOVÁ, Z.: Agrometeorology and Bioclimatology. Bratislava, Comenius University, 1994. (In Slovak).					
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. František Matejka, CSc.					
Last change: 02.06.2015					

Approved by: prof. RNDr. Miroslav Grajcar, DrSc.

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-307/10		Course title: Non-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: 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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-308/10		Course title: Non-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: 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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3- FMK-003/00		Course title: Objects of the Synoptic Analysis and the Forecast of the Selected Characteristics State of the Atmosphere			
Educational activities: Type of activities: lecture Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 1.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The analysis of the pressure field and atmospheric fronts. Peculiarities of the synoptic analysis objects, forecast their formation, development and shift. The formulate of the synoptic situation forecast. The forecast of the selected meteorological elements.					
Recommended literature: Papers in scientific and professional journals.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 5					
A	B	C	D	E	FX
60,0	0,0	40,0	0,0	0,0	0,0
Lecturers: doc. RNDr. Martin Gera, PhD.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-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: 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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-805/10		Course title: Participation in a Conference Organising Committee			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-404/10		Course title: Presentation at a Department Seminar			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-403/10		Course title: Presentation at a Home Conference			
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:					
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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-402/10		Course title: Presentation at a Home Conference with International Participation			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-401/10		Course title: Presentation at an International Conference			
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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3- FMK-704/10		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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-707/10		Course title: Quotation in a Home Scientific Journal			
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:					
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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-705/10		Course title: Quotation in a Monograph			
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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3- FMK-706/10		Course title: Quotation in a Scientific Journal Abroad			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3- FMK-006/00		Course title: Regional Climatology			
Educational activities: Type of activities: lecture Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 2.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Methods of regional climatology. Influence of circulation, radiative and geographical factors on the climate in the Central Europe and Slovakia. Peculiarities of temporal and areal distribution of climatological characteristics at individual climatic elements in the Central Europe and Slovakia. Classification of climatic types in Central Europe and Slovakia, mainly from the point of view of soil moisture, temperature and radiation assurance. Dynamic-Climatological analysis. Climatology of the Earth's boundary layer and aeroclimatology. Climatic normals and climatic design values. This syllabus cover generally all subject, the supervisor will select some of the themes for more detail study based on the Disertation thesis theme.					
Recommended literature: Papers in scientific and professional journals.					
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: prof. RNDr. Milan Lapin, CSc.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3- FMK-305/10		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: 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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3- FMK-306/10		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: 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: 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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3- FMK-001/00		Course title: Selected Chapters from Dynamic Meteorology			
Educational activities: Type of activities: lecture Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning					
Number of credits: 8					
Recommended semester: 2.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Circulation and vorticity. Circulation theorems for the absolute movement of air. The dynamic balance of the zonal flow. The absolute and relative circulations. The absolute and relative vorticity theorems. Divergence and balance equations. Mechanism of the pressure changes. Pressure tendency equation and relative topography tendency equation.					
Recommended literature: Papers in scientific and professional journals.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 9					
A	B	C	D	E	FX
77,78	11,11	11,11	0,0	0,0	0,0
Lecturers: doc. RNDr. Martin Gera, PhD.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3- FMK-807/10		Course title: Study Stay Abroad			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-801/10		Course title: Supervising and Demonstrating Work			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 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. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3-FMK-802/10		Course title: Supervising and Demonstrating Work			
Educational activities: Type of activities: Number of hours: per week: per level/semester: 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: 8					
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. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAFZM/3- FMK-008/00		Course title: Weather Forecast Based on Numerical Meteorological Models			
Educational activities: Type of activities: lecture Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 3.					
Educational level: III.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Assimilation cycle of NWP models. Model requirements for atmosphere simulation. Hydrodynamic, Navier-Stokes equations, their fields of application, simplification and their solvability. Numerical solution and its comparison with analytical solution, physical parameterizations of atmospheric phenomena and their influence to the subgrid processes. Postprocessing and its utilization in practice (all kind of traffic, agriculture, social life...)					
Recommended literature: scientific contributions in the established journals					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 2					
A	B	C	D	E	FX
50,0	0,0	50,0	0,0	0,0	0,0
Lecturers: doc. RNDr. Martin Gera, PhD.					
Last change: 02.06.2015					
Approved by: prof. RNDr. Miroslav Grajcar, DrSc.					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAFZM/3-FMK-808/10		Course title: Writing Diploma Thesis Assessment Protocol			
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: 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. RNDr. Miroslav Grajcar, DrSc.					