

## Course descriptions

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## COURSE DESCRIPTION

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |                                                       |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                                                                                                                                                                                                                                                                                                                                            |     |                                                       |     |     |     |
| <b>Course ID:</b><br>FMFI.KEF/3-FFP-005/00                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     | <b>Course title:</b><br>Automatisation of Experiments |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b> lecture<br><b>Number of hours:</b><br><b>per week:</b> 2 <b>per level/semester:</b> 28<br><b>Form of the course:</b> on-site 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><br>Active and passive sensors, signal unification, basic of Boole algebra, logical circuits , sequential circuits, architecture of PC, software for data ecquisition and processcontroll, A/D inputs, outputs: Analog to Digital Conversion, Digital toanalog converison, serial and parallel transfer, USB, digital oscilloscopes, DSP – digital signalprocessing.                                                                                                                 |     |                                                       |     |     |     |
| <b>Recommended literature:</b><br>Limann O., Pelka H., Elektronika bez balastu, Bratislava Alfa, 1990 (in Slovak)<br>Bernard J-M. & Hugon J.: Od logických obvodu k mikroprocesorum, SNTL, Praha, 1984 (in Slovak)<br>Horowitz-P. – Hill W.: The Art of Electronics, Cambridge Univ.,Press, 2nd Ed. 1989 (available in Russian, too)<br>The Scientist and Engineer's Guide to Digital Signal Processing by Steven W. Smith, California Technical Publishing ISBN 0-9660176-3-3 (1997) – je aj na internete |     |                                                       |     |     |     |
| <b>Languages necessary to complete the course:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |                                                       |     |     |     |
| <b>Notes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |                                                       |     |     |     |
| <b>Past grade distribution</b><br>Total number of evaluated students: 8                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |                                                       |     |     |     |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | B   | C                                                     | D   | E   | FX  |
| 100,0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0,0 | 0,0                                                   | 0,0 | 0,0 | 0,0 |
| <b>Lecturers:</b> RNDr. Imrich Morva, PhD., prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                                                                                                                                                                                                                                                                                                               |     |                                                       |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |                                                       |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |                                                       |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-803/10                                                                                                                                     |     | <b>Course title:</b><br>BSc Thesis Supervision |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><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><br>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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                |     |     |     |

## COURSE DESCRIPTION

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| <b>University:</b> Comenius University in Bratislava                                                                                                                                                                  |     |                                                                           |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                                                       |     |                                                                           |     |     |     |
| <b>Course ID:</b><br>FMFI.KAFZM/3-FFP-203/15                                                                                                                                                                          |     | <b>Course title:</b><br>Bio-medical Applications of Plasmas and Radiation |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b> lecture<br><b>Number of hours:</b><br><b>per week:</b> 2 <b>per level/semester:</b> 28<br><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><br>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> doc. RNDr. Zdenko Machala, PhD.                                                                                                                                                                     |     |                                                                           |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                                                        |     |                                                                           |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                                                  |     |                                                                           |     |     |     |

## COURSE DESCRIPTION

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| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                                               |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                                               |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-706/15                                                                                                                                     |     | <b>Course title:</b><br>Citation in Reviewed Scientific Periodical or Almanac |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                                               |     |     |     |
| <b>Number of credits:</b> 3                                                                                                                                                    |     |                                                                               |     |     |     |
| <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><br>Total number of evaluated students: 1                                                                                                        |     |                                                                               |     |     |     |
| 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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                                               |     |     |     |

## COURSE DESCRIPTION

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| <b>University:</b> Comenius University in Bratislava                                                                                                                                  |     |                                                                      |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                       |     |                                                                      |     |     |     |
| <b>Course ID:</b><br>FMFI.KEF/3-FFP-501/15                                                                                                                                            |     | <b>Course title:</b><br>Completion of PhD Research Project Stage (1) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week:</b> <b>per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                                      |     |     |     |
| <b>Number of credits:</b> 10                                                                                                                                                          |     |                                                                      |     |     |     |
| <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><br>Total number of evaluated students: 25                                                                                                              |     |                                                                      |     |     |     |
| A                                                                                                                                                                                     | B   | C                                                                    | D   | E   | FX  |
| 96,0                                                                                                                                                                                  | 0,0 | 0,0                                                                  | 4,0 | 0,0 | 0,0 |
| <b>Lecturers:</b>                                                                                                                                                                     |     |                                                                      |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                        |     |                                                                      |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                  |     |                                                                      |     |     |     |

## COURSE DESCRIPTION

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| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                                      |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                                      |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-502/15                                                                                                                                     |     | <b>Course title:</b><br>Completion of PhD Research Project Stage (1) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                                      |     |     |     |
| <b>Number of credits:</b> 10                                                                                                                                                   |     |                                                                      |     |     |     |
| <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><br>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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                                      |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                                                     |     |                                                               |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                                                          |     |                                                               |     |     |     |
| <b>Course ID:</b><br>FMFI.KJP/3-MXX-101/15                                                                                                                                                                               |     | <b>Course title:</b><br>Course of English for PhD Studies (1) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b> practicals<br><b>Number of hours:</b><br><b>per week:</b> 2 <b>per level/semester:</b> 28<br><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><br>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. Dr. Štefan Matejčík, DrSc.                                                                                                                                                                     |     |                                                               |     |     |     |



## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                                                     |     |                                                               |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                                                          |     |                                                               |     |     |     |
| <b>Course ID:</b><br>FMFI.KJP/3-MXX-102/15                                                                                                                                                                               |     | <b>Course title:</b><br>Course of English for PhD Studies (1) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b> practicals<br><b>Number of hours:</b><br><b>per week:</b> 2 <b>per level/semester:</b> 28<br><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><br>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. Dr. Štefan Matejčík, DrSc.                                                                                                                                                                     |     |                                                               |     |     |     |

## COURSE DESCRIPTION

|                                                                                                                                                                                |     |                                                |     |     |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-012/15                                                                                                                                     |     | <b>Course title:</b><br>Department Seminar (1) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site 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><br>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> prof. Dr. Štefan Matejčík, DrSc., doc. RNDr. Anna Zahoranová, PhD.                                                                                           |     |                                                |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |     |                                                |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                |     |     |     |

## COURSE DESCRIPTION

|                                                                                                                                                                                |     |                                                |     |     |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-013/15                                                                                                                                     |     | <b>Course title:</b><br>Department Seminar (2) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                    |     |                                                |     |     |     |
| <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><br>Total number of evaluated students: 8                                                                                                        |     |                                                |     |     |     |
| A                                                                                                                                                                              | B   | C                                              | D   | E   | FX  |
| 100,0                                                                                                                                                                          | 0,0 | 0,0                                            | 0,0 | 0,0 | 0,0 |
| <b>Lecturers:</b> prof. Dr. Štefan Matejčík, DrSc., doc. RNDr. Anna Zahoranová, PhD.                                                                                           |     |                                                |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |     |                                                |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-014/15                                                                                                                                     |     | <b>Course title:</b><br>Department Seminar (3) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                    |     |                                                |     |     |     |
| <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><br>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> prof. Dr. Štefan Matejčík, DrSc., doc. RNDr. Anna Zahoranová, PhD.                                                                                           |     |                                                |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |     |                                                |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-015/15                                                                                                                                     |     | <b>Course title:</b><br>Department Seminar (4) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                    |     |                                                |     |     |     |
| <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><br>Total number of evaluated students: 4                                                                                                        |     |                                                |     |     |     |
| A                                                                                                                                                                              | B   | C                                              | D   | E   | FX  |
| 100,0                                                                                                                                                                          | 0,0 | 0,0                                            | 0,0 | 0,0 | 0,0 |
| <b>Lecturers:</b> prof. Dr. Štefan Matejčík, DrSc., doc. RNDr. Anna Zahoranová, PhD.                                                                                           |     |                                                |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |     |                                                |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-016/15                                                                                                                                     |     | <b>Course title:</b><br>Department Seminar (5) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                    |     |                                                |     |     |     |
| <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><br>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> prof. Dr. Štefan Matejčík, DrSc., doc. RNDr. Anna Zahoranová, PhD.                                                                                           |     |                                                |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |     |                                                |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-017/15                                                                                                                                     |     | <b>Course title:</b><br>Department Seminar (6) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                    |     |                                                |     |     |     |
| <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><br>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> prof. Dr. Štefan Matejčík, DrSc., doc. RNDr. Anna Zahoranová, PhD.                                                                                           |     |                                                |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |     |                                                |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-018/15                                                                                                                                     |     | <b>Course title:</b><br>Department Seminar (7) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                    |     |                                                |     |     |     |
| <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><br>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. Dr. Štefan Matejčík, DrSc., doc. RNDr. Anna Zahoranová, PhD.                                                                                           |     |                                                |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |     |                                                |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                |     |     |     |



## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-019/15                                                                                                                                     |     | <b>Course title:</b><br>Department Seminar (8) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                    |     |                                                |     |     |     |
| <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><br>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. Dr. Štefan Matejčík, DrSc., doc. RNDr. Anna Zahoranová, PhD.                                                                                           |     |                                                |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |     |                                                |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                |     |     |     |

## STATE EXAM DESCRIPTION

|                                                                 |                                                     |
|-----------------------------------------------------------------|-----------------------------------------------------|
| <b>University:</b> Comenius University in Bratislava            |                                                     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics |                                                     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-990/15                      | <b>Course title:</b><br>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. Dr. Štefan Matejčík, DrSc.            |                                                     |

## COURSE DESCRIPTION

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                                                |     |     |     |
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| <b>University:</b> Comenius University in Bratislava                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                                                |     |     |     |
| <b>Course ID:</b><br>FMFI.KAFZM/3-FFP-001/00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      | <b>Course title:</b><br>Experimental Vademecum |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b> lecture<br><b>Number of hours:</b><br><b>per week:</b> 4 <b>per level/semester:</b> 56<br><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>Course requirements:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                                                |     |     |     |
| <b>Learning outcomes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                                                |     |     |     |
| <b>Class syllabus:</b><br>Measurement of RF and pulse current (Rogowski coil, frequency compensation of shunts, etc.). Compensation of parasitic capacitance currents. Measurement of RF and pulse voltage (voltage dividers and oscilloscope probes). Waves on coaxial cables (speed of propagation, characteristic impedance and impedance match). Measuring of tiny currents down to femtoampere (solid-state and vibrating reed electrometers, the noise behaviour).<br>Digital oscilloscopes, sampling oscilloscopes and image converter cameras. Evaluation of slowly changing signals (sampling and incremental amplifiers, and signal processing). Measuring of electrical quantities under extreme conditions (e.g. under high voltage), optoelectronic couplers. The principles of switching voltage regulator, current sources and current mirrors. Electromagnetic interference in experiments (RF interference, coupling paths, inductive coupling, filtering and proper grounding). Electrostatic and magnetic shielding. Rejecting of electrical noise by current loops. Transistor overload protection methods for switching applications (switching of inductive and capacitive reactance). |      |                                                |     |     |     |
| <b>Recommended literature:</b><br>Schwab A. J.: Hochspannungs Messtechnik, Messgeräte und Messverfahren, Springer-Verlag, Heidelberg 1981 (ruský preklad: Izmerenija na vysokom naprjaženii, Energoatomizdat, Moskva 1983).<br>Seifart M.: Analoge Schaltungen, VEB Verlag Technik, Berlin 1987.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                                                |     |     |     |
| <b>Languages necessary to complete the course:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |                                                |     |     |     |
| <b>Notes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                                                |     |     |     |
| <b>Past grade distribution</b><br>Total number of evaluated students: 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                                                |     |     |     |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | B    | C                                              | D   | E   | FX  |
| 85,0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10,0 | 5,0                                            | 0,0 | 0,0 | 0,0 |

|                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lecturers:</b> doc. RNDr. Karol Hensel, PhD., doc. RNDr. Mário Janda, PhD., doc. RNDr. Zdenko Machala, PhD., Mgr. Peter Čermák, PhD. |
| <b>Last change:</b> 02.06.2015                                                                                                          |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                    |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                                            |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                                            |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-804/15                                                                                                                                     |     | <b>Course title:</b><br>Guidance of a Project for the Students' Conference |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                                            |     |     |     |
| <b>Number of credits:</b> 10                                                                                                                                                   |     |                                                                            |     |     |     |
| <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><br>Total number of evaluated students: 4                                                                                                        |     |                                                                            |     |     |     |
| 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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                                            |     |     |     |

## COURSE DESCRIPTION

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                               |      |                                                 |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                                    |      |                                                 |     |     |     |
| <b>Course ID:</b><br>FMFI.KEF/3-FFP-002/15                                                                                                                                                         |      | <b>Course title:</b><br>High Temperature Plasma |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b> lecture<br><b>Number of hours:</b><br><b>per week:</b> 4 <b>per level/semester:</b> 56<br><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><br>Total number of evaluated students: 2                                                                                                                            |      |                                                 |     |     |     |
| A                                                                                                                                                                                                  | B    | C                                               | D   | E   | FX  |
| 50,0                                                                                                                                                                                               | 50,0 | 0,0                                             | 0,0 | 0,0 | 0,0 |
| <b>Lecturers:</b> prof. RNDr. Viktor Martišovitš, DrSc.                                                                                                                                            |      |                                                 |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                                     |      |                                                 |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                               |      |                                                 |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                    |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                    |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-703/10                                                                                                                                     |     | <b>Course title:</b><br>Home Project Co-researcher |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                    |     |     |     |
| <b>Number of credits:</b> 10                                                                                                                                                   |     |                                                    |     |     |     |
| <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><br>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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                    |     |     |     |

## COURSE DESCRIPTION

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                  |     |                                                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                       |     |                                                                                |     |     |     |
| <b>Course ID:</b><br>FMFI.KEF/3-FFP-101/15                                                                                                                                            |     | <b>Course title:</b><br>Individual Study of Science and Research Resources (1) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week:</b> <b>per level/semester:</b><br><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><br>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. Dr. Štefan Matejčík, DrSc.                                                                                                                                  |     |                                                                                |     |     |     |



## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |       |                                                                                |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |       |                                                                                |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-104/15                                                                                                                                     |       | <b>Course title:</b><br>Individual Study of Science and Research Resources (2) |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><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><br>Total number of evaluated students: 6                                                                                                        |       |                                                                                |     |     |     |
| A                                                                                                                                                                              | B     | C                                                                              | D   | E   | FX  |
| 83,33                                                                                                                                                                          | 16,67 | 0,0                                                                            | 0,0 | 0,0 | 0,0 |
| <b>Lecturers:</b>                                                                                                                                                              |       |                                                                                |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |       |                                                                                |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |       |                                                                                |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                             |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                             |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-702/10                                                                                                                                     |     | <b>Course title:</b><br>International Project Co-researcher |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                             |     |     |     |
| <b>Number of credits:</b> 15                                                                                                                                                   |     |                                                             |     |     |     |
| <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><br>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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                             |     |     |     |

## COURSE DESCRIPTION

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                               |     |                                                            |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                                    |     |                                                            |     |     |     |
| <b>Course ID:</b><br>FMFI.KEF/3-FFP-006/15                                                                                                                                                         |     | <b>Course title:</b><br>Mass and Ion Mobility Spectrometry |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b> lecture<br><b>Number of hours:</b><br><b>per week:</b> 2 <b>per level/semester:</b> 28<br><b>Form of the course:</b> on-site learning |     |                                                            |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                                        |     |                                                            |     |     |     |
| <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><br>Total number of evaluated students: 4                                                                                                                            |     |                                                            |     |     |     |
| A                                                                                                                                                                                                  | B   | C                                                          | D   | E   | FX  |
| 100,0                                                                                                                                                                                              | 0,0 | 0,0                                                        | 0,0 | 0,0 | 0,0 |
| <b>Lecturers:</b> prof. Dr. Štefan Matejčík, DrSc., RNDr. Ladislav Moravský, PhD.                                                                                                                  |     |                                                            |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                                     |     |                                                            |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                               |     |                                                            |     |     |     |

## COURSE DESCRIPTION

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                               |     |                                                    |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                                    |     |                                                    |     |     |     |
| <b>Course ID:</b><br>FMFI.KEF/3-FFP-011/15                                                                                                                                                         |     | <b>Course title:</b><br>Modern Plasma Technologies |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b> lecture<br><b>Number of hours:</b><br><b>per week:</b> 2 <b>per level/semester:</b> 28<br><b>Form of the course:</b> on-site learning |     |                                                    |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                                        |     |                                                    |     |     |     |
| <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><br>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> doc. RNDr. Anna Zahoranová, PhD., doc. RNDr. Miroslav Zahoran, CSc.                                                                                                              |     |                                                    |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                                     |     |                                                    |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                               |     |                                                    |     |     |     |

## COURSE DESCRIPTION

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| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                                    |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                                    |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-307/15                                                                                                                                     |     | <b>Course title:</b><br>Non-reviewed Home or Foreign Papers Volume |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                                    |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                    |     |                                                                    |     |     |     |
| <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><br>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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                                    |     |     |     |

## COURSE DESCRIPTION

|                                                                                                                                                                                |     |                                                      |     |     |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                      |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                      |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-701/10                                                                                                                                     |     | <b>Course title:</b><br>Obtaining a University Grant |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                      |     |     |     |
| <b>Number of credits:</b> 20                                                                                                                                                   |     |                                                      |     |     |     |
| <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><br>Total number of evaluated students: 31                                                                                                       |     |                                                      |     |     |     |
| 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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                      |     |     |     |

## COURSE DESCRIPTION

|                                                                                                                                                                                                                                                                                                                                                                                 |      |                                                    |     |     |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                                                                                                                                                                                                            |      |                                                    |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                                                                                                                                                                                                                 |      |                                                    |     |     |     |
| <b>Course ID:</b><br>FMFI.KEF/3-FFP-004/00                                                                                                                                                                                                                                                                                                                                      |      | <b>Course title:</b><br>Optical Plasma Diagnostics |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b> lecture<br><b>Number of hours:</b><br><b>per week:</b> 2 <b>per level/semester:</b> 28<br><b>Form of the course:</b> on-site learning                                                                                                                                                                              |      |                                                    |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                                                                                                                                                                                                                     |      |                                                    |     |     |     |
| <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><br>Relative and absolute methods of particles density and their characteristic temperature determination.<br>Reaction constants determination for production and destruction of radicals and excited species.<br>Classical optical emission and absorption spectroscopy in near IR, visible UV and vacuum UV range. Laser plasma diagnostics (LIF, CRDS) |      |                                                    |     |     |     |
| <b>Recommended literature:</b><br>G.V. Maar: Plasma Spectroscopy, Elsevier Amsterdam 1968<br>W. Demtroder: Laser Spectroscopy, Springer Berlin 1996                                                                                                                                                                                                                             |      |                                                    |     |     |     |
| <b>Languages necessary to complete the course:</b>                                                                                                                                                                                                                                                                                                                              |      |                                                    |     |     |     |
| <b>Notes:</b>                                                                                                                                                                                                                                                                                                                                                                   |      |                                                    |     |     |     |
| <b>Past grade distribution</b><br>Total number of evaluated students: 17                                                                                                                                                                                                                                                                                                        |      |                                                    |     |     |     |
| A                                                                                                                                                                                                                                                                                                                                                                               | B    | C                                                  | D   | E   | FX  |
| 94,12                                                                                                                                                                                                                                                                                                                                                                           | 5,88 | 0,0                                                | 0,0 | 0,0 | 0,0 |
| <b>Lecturers:</b> prof. RNDr. Pavel Veis, CSc.                                                                                                                                                                                                                                                                                                                                  |      |                                                    |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                                                                                                                                                                                                                  |      |                                                    |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                                                                                                                                                                                                            |      |                                                    |     |     |     |

## STATE EXAM DESCRIPTION

|                                                                 |                                                          |
|-----------------------------------------------------------------|----------------------------------------------------------|
| <b>University:</b> Comenius University in Bratislava            |                                                          |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics |                                                          |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-950/15                      | <b>Course title:</b><br>Passing 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. Dr. Štefan Matejčík, DrSc.            |                                                          |



## COURSE DESCRIPTION

|                                                                                                                                                                                       |     |                                                           |     |     |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                  |     |                                                           |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                       |     |                                                           |     |     |     |
| <b>Course ID:</b><br>FMFI.KEF/3-FFP-403/10                                                                                                                                            |     | <b>Course title:</b><br>Presentation at a Home Conference |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week:</b> <b>per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                           |     |     |     |
| <b>Number of credits:</b> 10                                                                                                                                                          |     |                                                           |     |     |     |
| <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><br>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> doc. RNDr. Anna Zahoranová, PhD.                                                                                                                                    |     |                                                           |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                        |     |                                                           |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                  |     |                                                           |     |     |     |

## COURSE DESCRIPTION

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                  |     |                                                                     |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                       |     |                                                                     |     |     |     |
| <b>Course ID:</b><br>FMFI.KEF/3-FFP-401/10                                                                                                                                            |     | <b>Course title:</b><br>Presentation at an International Conference |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week:</b> <b>per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                                     |     |     |     |
| <b>Number of credits:</b> 20                                                                                                                                                          |     |                                                                     |     |     |     |
| <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><br>Total number of evaluated students: 45                                                                                                              |     |                                                                     |     |     |     |
| A                                                                                                                                                                                     | B   | C                                                                   | D   | E   | FX  |
| 100,0                                                                                                                                                                                 | 0,0 | 0,0                                                                 | 0,0 | 0,0 | 0,0 |
| <b>Lecturers:</b> doc. RNDr. Anna Zahoranová, PhD.                                                                                                                                    |     |                                                                     |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                        |     |                                                                     |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                  |     |                                                                     |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                                                 |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                                                 |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-302/15                                                                                                                                     |     | <b>Course title:</b><br>Publication in a Current Contents-registered Periodical |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                                                 |     |     |     |
| <b>Number of credits:</b> 30                                                                                                                                                   |     |                                                                                 |     |     |     |
| <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><br>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> doc. RNDr. Anna Zahoranová, PhD.                                                                                                                             |     |                                                                                 |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |     |                                                                                 |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                                                 |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                                                          |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                                                          |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-303/15                                                                                                                                     |     | <b>Course title:</b><br>Publication in a Foreign Reviewed Periodical or Reviewed Almanac |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                                                          |     |     |     |
| <b>Number of credits:</b> 20                                                                                                                                                   |     |                                                                                          |     |     |     |
| <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><br>Total number of evaluated students: 4                                                                                                        |     |                                                                                          |     |     |     |
| 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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                                                          |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                                                  |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                                                  |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-304/15                                                                                                                                     |     | <b>Course title:</b><br>Publication in a Reviewed Periodical or Reviewed Almanac |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                                                  |     |     |     |
| <b>Number of credits:</b> 15                                                                                                                                                   |     |                                                                                  |     |     |     |
| <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><br>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>                                                                                                                                                              |     |                                                                                  |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                 |     |                                                                                  |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                                                  |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                                 |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                                 |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-301/15                                                                                                                                     |     | <b>Course title:</b><br>Publication in an A-category Periodical |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                                 |     |     |     |
| <b>Number of credits:</b> 35                                                                                                                                                   |     |                                                                 |     |     |     |
| <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><br>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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                                 |     |     |     |

## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                               |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                               |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-704/10                                                                                                                                     |     | <b>Course title:</b><br>Quotation Registered in SCI or SCOPUS |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                               |     |     |     |
| <b>Number of credits:</b> 4                                                                                                                                                    |     |                                                               |     |     |     |
| <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><br>Total number of evaluated students: 4                                                                                                        |     |                                                               |     |     |     |
| 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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                               |     |     |     |

## COURSE DESCRIPTION

|                                                                                                                                                                                |     |                                                            |     |     |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                            |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                            |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-801/10                                                                                                                                     |     | <b>Course title:</b><br>Supervising and Demonstrating Work |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site 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><br>Total number of evaluated students: 46                                                                                                       |     |                                                            |     |     |     |
| 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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                            |     |     |     |



## COURSE DESCRIPTION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                           |     |                                                            |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                |     |                                                            |     |     |     |
| <b>Course ID:</b><br>FMFL.KEF/3-FFP-802/10                                                                                                                                     |     | <b>Course title:</b><br>Supervising and Demonstrating Work |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b><br><b>Number of hours:</b><br><b>per week: per level/semester:</b><br><b>Form of the course:</b> on-site learning |     |                                                            |     |     |     |
| <b>Number of credits:</b> 5                                                                                                                                                    |     |                                                            |     |     |     |
| <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><br>Total number of evaluated students: 25                                                                                                       |     |                                                            |     |     |     |
| 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. Dr. Štefan Matejčík, DrSc.                                                                                                                           |     |                                                            |     |     |     |

## COURSE DESCRIPTION

|                                                                                                                                                                                                                                     |      |                                           |     |     |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------|-----|-----|-----|
| <b>University:</b> Comenius University in Bratislava                                                                                                                                                                                |      |                                           |     |     |     |
| <b>Faculty:</b> Faculty of Mathematics, Physics and Informatics                                                                                                                                                                     |      |                                           |     |     |     |
| <b>Course ID:</b><br>FMFI.KEF/3-FFP-009/15                                                                                                                                                                                          |      | <b>Course title:</b><br>Surface Treatment |     |     |     |
| <b>Educational activities:</b><br><b>Type of activities:</b> lecture / laboratory practicals<br><b>Number of hours:</b><br><b>per week:</b> 2 / 2 <b>per level/semester:</b> 28 / 28<br><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><br>Total number of evaluated students: 5                                                                                                                                                             |      |                                           |     |     |     |
| A                                                                                                                                                                                                                                   | B    | C                                         | D   | E   | FX  |
| 80,0                                                                                                                                                                                                                                | 20,0 | 0,0                                       | 0,0 | 0,0 | 0,0 |
| <b>Lecturers:</b> doc. RNDr. Miroslav Zahoran, CSc.                                                                                                                                                                                 |      |                                           |     |     |     |
| <b>Last change:</b> 02.06.2015                                                                                                                                                                                                      |      |                                           |     |     |     |
| <b>Approved by:</b> prof. Dr. Štefan Matejčík, DrSc.                                                                                                                                                                                |      |                                           |     |     |     |