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| University: Comenius University in Bratislava   |                 |  |  |
|---|-----------------|--|--|
| Faculty: Faculty of Mathematics, Physics and Informatics  |                 |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-034/15  |                 |  |  |
| Educational activities: Type of activities: lecture / laboratory practicals Number of hours: per week: 2 / 3 per level/semester: 28 / 42 Form of the course: on-site learning |                 |  |  |
| Number of credits: 10   |                 |  |  |
| Recommended semester: 1.  |                 |  |  |
| Educational level: III.   |                 |  |  |
| Prerequisites:  |                 |  |  |
| Course requirements:  |                 |  |  |
| Learning outcomes:  |                 |  |  |
| Class syllabus:   |                 |  |  |
| Recommended literature:   |                 |  |  |
| Languages necessary to comp   | ete the course: |  |  |
| Notes:  |                 |  |  |
| Past grade distribution Total number of evaluated stude   | ents: 3         |  |  |
| ABS NEABS   |                 |  |  |
| 100,0 0,0   |                 |  |  |
| Lecturers: prof. RNDr. Pavel Povinec, DrSc., RNDr. Miroslav Ješkovský, PhD.   |                 |  |  |
| <b>Last change:</b> 02.06.2015  |                 |  |  |
| Approved by:  |                 |  |  |

University: Comenius University in Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KJFB/3-FJF-035/15 Advanced High Energy Physics **Educational activities:** Type of activities: lecture / independent work **Number of hours:** per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning Number of credits: 10 Recommended semester: 2. **Educational level: III. Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 0 **ABS NEABS** 0,0 0,0 Lecturers: prof. RNDr. Stanislav Tokár, DrSc., Mgr. Pavol Bartoš, PhD. **Last change:** 02.06.2015 Approved by:

University: Comenius University in Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJFB/3-FJF-037/15 Advanced Nuclear Physics

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 10

**Recommended semester: 2.** 

**Educational level: III.** 

### **Prerequisites:**

#### **Course requirements:**

Evaluation during the semester: homeworks Final evaluation: written test and oral exam

Scale for final grades: A 90%, B 80%, C 70%, D 60%, E 50%

### **Learning outcomes:**

The student gains more detailed knowledge of the nuclear physics topics, the structure of atomic nuclei and typical projects running nowadays.

#### Class syllabus:

Summary of nuclear models. Spherical shell model and nuclear excitations, Deformation of the nucleus, magnetic and electric moments of nuclei. Deformed shell model. Shape coexistence. Kollective excitations.

Nuclear isomers. Decay spectroscopy. Laser spectroscopy. Nuclear fission.

Selected topics for various topics. Neutron and proton halo. Influence of nuclear structure on astrophysical reactions. Proton and neutron dripline. Influence of closed-shell on the stability and decay of atomic nuclei. New magic numbers. Production and properties of superheavy elements. Chemistry of superheavy elements.

The complete fusion reaction and separation of reaction products. Transfer reactions. Nuclear fragmentation and separation of fragments. Radioactive-ion beam measurements. Post-acceleration of radioactive beams.

#### Recommended literature:

Nuclear structure from a simple perspective / R. F. Casten. Oxford : Oxford University Press, 2000

Introductory nuclear physics / Kenneth S. Krane. Hoboken: Wiley, 1988

Basic ideas and concepts in nuclear physics an introductory approach / Kris Heyde. Bristol:

Institute of Physics Publishing, 1999

Cyriel Wagemans, The Nuclear Fission Process, CRC Press, 1991

K.S. Krane, Introductory Nuclear Physics, John Wiley & Sons, 1988.

#### Languages necessary to complete the course:

#### Notes:

| Past grade distribution                      |       |  |  |  |
|--|-------|--|--|--|
| Total number of evaluated students: 2        |       |  |  |  |
| ABS  | NEABS |  |  |  |
| 100,0  | 0,0   |  |  |  |
| Lecturers: doc. Mgr. Stanislav Antalic, PhD. |       |  |  |  |
| Last change: 20.02.2020                      |       |  |  |  |
| Approved by:                                 |       |  |  |  |

| University: Comenius University in Bratislava  |  |  |  |  |
|--|--|--|--|--|
| Faculty: Faculty of Mathematic   | Faculty: Faculty of Mathematics, Physics and Informatics |  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-029/15   |  |  |  |  |
| Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning |  |  |  |  |
| Number of credits: 10  |  |  |  |  |
| Recommended semester: 1.   |  |  |  |  |
| Educational level: III.  |  |  |  |  |
| Prerequisites:   |  |  |  |  |
| Course requirements:   |  |  |  |  |
| Learning outcomes:   |  |  |  |  |
| Class syllabus:  |  |  |  |  |
| Recommended literature:  |  |  |  |  |
| Languages necessary to compl   | ete the course:  |  |  |  |
| Notes:   |  |  |  |  |
| Past grade distribution Total number of evaluated students: 0  |  |  |  |  |
| ABS NEABS  |  |  |  |  |
| 0,0  |  |  |  |  |
| Lecturers: prof. RNDr. Jozef Masarik, DrSc.  |  |  |  |  |
| Last change: 02.06.2015  |  |  |  |  |
| Approved by:   |  |  |  |  |

| University: Comenius University in Bratislava  |                  |  |  |  |
|--|------------------|--|--|--|
| Faculty: Faculty of Mathematics, Physics and Informatics   |                  |  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-021/15   |                  |  |  |  |
| Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning |                  |  |  |  |
| Number of credits: 10  |                  |  |  |  |
| Recommended semester: 1.   |                  |  |  |  |
| Educational level: III.  |                  |  |  |  |
| Prerequisites:   |                  |  |  |  |
| Course requirements:   |                  |  |  |  |
| Learning outcomes:   |                  |  |  |  |
| Class syllabus:  |                  |  |  |  |
| Recommended literature:  |                  |  |  |  |
| Languages necessary to compl   | lete the course: |  |  |  |
| Notes:   |                  |  |  |  |
| Past grade distribution Total number of evaluated stude  | ents: 1          |  |  |  |
| ABS NEABS  |                  |  |  |  |
| 100,0 0,0  |                  |  |  |  |
| Lecturers: prof. RNDr. Fedor Šimkovic, CSc.  |                  |  |  |  |
| <b>Last change:</b> 02.06.2015   |                  |  |  |  |
| Approved by:   |                  |  |  |  |

| University: Comenius University in Bratislava   |  |  |  |
|---|--|--|--|
| Faculty: Faculty of Mathematic  | Faculty: Faculty of Mathematics, Physics and Informatics |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-301/15  |  |  |  |
| Educational activities: Type of activities: independent work Number of hours: per week: 30 per level/semester: 420 Form of the course: on-site learning |  |  |  |
| Number of credits: 30   |  |  |  |
| Recommended semester: 3.  |  |  |  |
| Educational level: III.   |  |  |  |
| Prerequisites:  |  |  |  |
| Course requirements:  |  |  |  |
| Learning outcomes:  |  |  |  |
| Class syllabus:   |  |  |  |
| Recommended literature:   |  |  |  |
| Languages necessary to compl  | lete the course:   |  |  |
| Notes:  |  |  |  |
| Past grade distribution Total number of evaluated students: 0   |  |  |  |
| ABS NEABS   |  |  |  |
| 0,0   |  |  |  |
| Lecturers:  |  |  |  |
| <b>Last change:</b> 02.06.2015  |  |  |  |
| Approved by:  |  |  |  |

| University: Comenius University in Bratislava   |   |  |  |  |
|---|---|--|--|--|
| Faculty: Faculty of Mathematics, Physics and Informatics  |   |  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-026/15  |   |  |  |  |
| Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semes Form of the course: on-site le |   |  |  |  |
| Number of credits: 10   |   |  |  |  |
| Recommended semester: 1.  |   |  |  |  |
| Educational level: III.   |   |  |  |  |
| Prerequisites:  |   |  |  |  |
| Course requirements:  |   |  |  |  |
| Learning outcomes:  |   |  |  |  |
| Class syllabus:   |   |  |  |  |
| Recommended literature:   |   |  |  |  |
| Languages necessary to comp   | lete the course:                            |  |  |  |
| Notes:  |   |  |  |  |
| Past grade distribution Total number of evaluated stud  | ents: 3                                     |  |  |  |
| ABS NEABS   |   |  |  |  |
| 100,0 0,0   |   |  |  |  |
| Lecturers: prof. RNDr. Jozef M  | Lecturers: prof. RNDr. Jozef Masarik, DrSc. |  |  |  |
| <b>Last change:</b> 02.06.2015  |   |  |  |  |
| Approved by:  |   |  |  |  |

**University:** Comenius University in Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/3-MXX-101/15 Course of English for PhD Studies (1)

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28

Form of the course: on-site learning, distance learning

Number of credits: 5

**Recommended semester:** 1.

**Educational level: III.** 

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 118

| A     | ABS   | В    | С   | D   | Е    | FX  | NEABS |
|-------|-------|------|-----|-----|------|-----|-------|
| 71,19 | 24,58 | 0,85 | 0,0 | 0,0 | 3,39 | 0,0 | 0,0   |

Lecturers: PhDr. Alena Zemanová

Last change: 22.02.2019

Approved by:

**University:** Comenius University in Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KJP/3-MXX-102/15

Course of English for PhD Studies (1)

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28

Form of the course: on-site learning, distance learning

Number of credits: 5

**Recommended semester: 2.** 

**Educational level: III.** 

**Prerequisites:** FMFI.KJP/3-MXX-101/15 - Course of English for PhD Studies (1)

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 119

| A     | ABS   | В   | С   | D   | Е   | FX  | NEABS |
|-------|-------|-----|-----|-----|-----|-----|-------|
| 73,95 | 19,33 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 6,72  |

Lecturers: PhDr. Alena Zemanová

**Last change:** 22.02.2019

Approved by:

| University: Comenius University in Bratislava   |   |  |  |
|---|---|--|--|
| Faculty: Faculty of Mathematics, Physics and Informatics  |   |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-803/15  | Course title: Creation of Teaching Texts and Aids |  |  |
| Educational activities: Type of activities: independent work Number of hours: per week: 5 per level/semester: 70 Form of the course: on-site learning |   |  |  |
| Number of credits: 5  |   |  |  |
| Recommended semester: 4.  |   |  |  |
| Educational level: III.   |   |  |  |
| Prerequisites:  |   |  |  |
| Course requirements:  |   |  |  |
| Learning outcomes:  |   |  |  |
| Class syllabus:   |   |  |  |
| Recommended literature:   |   |  |  |
| Languages necessary to compl  | lete the course:                                  |  |  |
| Notes:  |   |  |  |
| Past grade distribution  Total number of evaluated students   | ents: 0   |  |  |
| ABS NEABS   |   |  |  |
| 0,0   |   |  |  |
| Lecturers:  | ·   |  |  |
| <b>Last change:</b> 02.06.2015  |   |  |  |
| Approved by:  |   |  |  |

| University: Comenius University in Bratislava  |                    |           |  |
|--|--------------------|-----------|--|
| Faculty: Faculty of Mathematic   | s, Physics and Inf | Formatics |  |
| Course ID:<br>FMFI.KJFB/3-FJF-203/15   |                    |           |  |
| Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning |                    |           |  |
| Number of credits: 5   |                    |           |  |
| Recommended semester: 1.   |                    |           |  |
| Educational level: III.  |                    |           |  |
| Prerequisites:   |                    |           |  |
| Course requirements:   |                    |           |  |
| Learning outcomes:   |                    |           |  |
| Class syllabus:  |                    |           |  |
| Recommended literature:  |                    |           |  |
| Languages necessary to comp  | lete the course:   |           |  |
| Notes:   |                    |           |  |
| Past grade distribution Total number of evaluated students: 7  |                    |           |  |
| ABS NEABS  |                    |           |  |
| 100,0 0,0  |                    |           |  |
| Lecturers:   |                    |           |  |
| <b>Last change:</b> 02.06.2015   |                    |           |  |
| Approved by:   |                    |           |  |

| University: Comenius Universi   | ty in Bratislava            |  |  |
|---|-----------------------------|--|--|
| Faculty: Faculty of Mathematic  | es, Physics and Informatics |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-204/15  |                             |  |  |
| Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semes Form of the course: on-site le |                             |  |  |
| Number of credits: 5  |                             |  |  |
| Recommended semester: 2.  |                             |  |  |
| Educational level: III.   |                             |  |  |
| Prerequisites:  |                             |  |  |
| Course requirements:  |                             |  |  |
| Learning outcomes:  |                             |  |  |
| Class syllabus:   |                             |  |  |
| Recommended literature:   |                             |  |  |
| Languages necessary to compl  | lete the course:            |  |  |
| Notes:  |                             |  |  |
| Past grade distribution Total number of evaluated stude   | ents: 0                     |  |  |
| ABS NEABS   |                             |  |  |
| 0,0   |                             |  |  |
| Lecturers:  | ·                           |  |  |
| <b>Last change:</b> 02.06.2015  |                             |  |  |
| Approved by:  |                             |  |  |

| University: Comenius University in Bratislava  |                                      |  |
|--|--------------------------------------|--|
| Faculty: Faculty of Mathematics, Physics and Informatics   |                                      |  |
| Course ID:<br>FMFI.KJFB/3-FJF-205/15   | Course title: Department Seminar (3) |  |
| Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning |                                      |  |
| Number of credits: 5   |                                      |  |
| Recommended semester: 3.   |                                      |  |
| Educational level: III.  |                                      |  |
| Prerequisites:   |                                      |  |
| Course requirements:   |                                      |  |
| Learning outcomes:   |                                      |  |
| Class syllabus:  |                                      |  |
| Recommended literature:  |                                      |  |
| Languages necessary to complete the course:  |                                      |  |
| Notes:   |                                      |  |
| Past grade distribution Total number of evaluated students   | ents: 0                              |  |
| ABS  | NEABS                                |  |
| 0,0  | 0,0                                  |  |
| Lecturers:   |                                      |  |
| <b>Last change:</b> 02.06.2015   |                                      |  |
| Approved by:   |                                      |  |

| University: Comenius University in Bratislava   |                                      |  |
|---|--------------------------------------|--|
| Faculty: Faculty of Mathematics, Physics and Informatics  |                                      |  |
| Course ID:<br>FMFI.KJFB/3-FJF-206/15  | Course title: Department Seminar (4) |  |
| Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning |                                      |  |
| Number of credits: 5  |                                      |  |
| Recommended semester: 4.  |                                      |  |
| Educational level: III.   |                                      |  |
| Prerequisites:  |                                      |  |
| Course requirements:  |                                      |  |
| Learning outcomes:  |                                      |  |
| Class syllabus:   |                                      |  |
| Recommended literature:   |                                      |  |
| Languages necessary to complete the course:   |                                      |  |
| Notes:  |                                      |  |
| Past grade distribution Total number of evaluated students: 0   |                                      |  |
| ABS   | NEABS                                |  |
| 0,0   |                                      |  |
| Lecturers:  |                                      |  |
| Last change: 02.06.2015   |                                      |  |
| Approved by:  |                                      |  |

| University: Comenius University in Bratislava  |                                |                            |  |
|--|--------------------------------|----------------------------|--|
| Faculty: Faculty of Mathematic   | es, Physics and Inf            | Formatics                  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-023/15   | Course title: Detection Techni | que and Monitoring Systems |  |
| Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning |                                |                            |  |
| Number of credits: 10  |                                |                            |  |
| Recommended semester: 1.   |                                |                            |  |
| Educational level: III.  |                                |                            |  |
| Prerequisites:   |                                |                            |  |
| Course requirements:   |                                |                            |  |
| Learning outcomes:   |                                |                            |  |
| Class syllabus:  | Class syllabus:                |                            |  |
| Recommended literature:  |                                |                            |  |
| Languages necessary to complete the course:  |                                |                            |  |
| Notes:   |                                |                            |  |
| Past grade distribution Total number of evaluated students: 0  |                                |                            |  |
| ABS  |                                | NEABS                      |  |
| 0,0  |                                |                            |  |
| Lecturers: doc. RNDr. Jaroslav Staníček, PhD., doc. RNDr. Ivan Sýkora, PhD.  |                                |                            |  |
| <b>Last change:</b> 02.06.2015   |                                |                            |  |
| Approved by:   |                                |                            |  |

| University: Comenius University in Bratislava  |   |  |
|--|---|--|
| Faculty: Faculty of Mathematics, Physics and Informatics   |   |  |
| Course ID:<br>FMFI.KJFB/3-FJFfu-112/14   | Course title: Disbalanced nuclear reactions |  |
| Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning |   |  |
| Number of credits: 10  |   |  |
| Recommended semester: 1.   |   |  |
| Educational level: III.  |   |  |
| Prerequisites:   |   |  |
| Course requirements:   |   |  |
| Learning outcomes:   |   |  |
| Class syllabus:  |   |  |
| Recommended literature:  |   |  |
| Languages necessary to complete the course:  |   |  |
| Notes:   |   |  |
| Past grade distribution Total number of evaluated stude  | ents: 0                                     |  |
| ABS  | NEABS                                       |  |
| 0,0  | 0,0   |  |
| Lecturers: doc. RNDr. Emil Běták, DrSc.  |   |  |
| <b>Last change:</b> 02.06.2015   |   |  |
| Approved by:   |   |  |

### STATE EXAM DESCRIPTION

University: Comenius University in Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:
FMFI.KJFB/3-FJF-990/15
Dissertation Thesis Defense

Number of credits: 30

Recommended semester: 7., 8..

Educational level: III.

State exam syllabus:

Last change: 02.06.2015

Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KJFB/3-FJF-033/15 English Seminar on Nuclear and Subnuclear Physics **Educational activities:** Type of activities: lecture / seminar **Number of hours:** per week: 1/2 per level/semester: 14/28 Form of the course: on-site learning Number of credits: 10 **Recommended semester:** 1. **Educational level: III. Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 5 **NEABS ABS** 100,0 0,0 Lecturers: prof. RNDr. Pavel Povinec, DrSc., prof. RNDr. Jozef Masarik, DrSc. **Last change:** 02.06.2015 Approved by:

University: Comenius University in Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course title: Course ID:** FMFI.KJFB/3-FJFfu-113/14 Faultless methods in quantum field theory **Educational activities:** Type of activities: lecture / seminar **Number of hours:** per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning Number of credits: 10 **Recommended semester:** 1. **Educational level: III. Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 0 **ABS NEABS** 0,0 0,0 Lecturers: RNDr. Štefan Olejník, DrSc., RNDr. Ľubomír Martinovič, CSc. Last change: 02.06.2015 Approved by:

| University: Comenius University   | ity in Bratislava   |  |
|---|---|--|
| Faculty: Faculty of Mathematic  | es, Physics and Informatics   |  |
| Course ID:<br>FMFI.KJFB/3-FJF-804/15  | Course title: Guidance of a Project for the Students' Conference or of a Final Thesis |  |
| Educational activities: Type of activities: other Number of hours: per week: 5 per level/semes Form of the course: on-site le |   |  |
| Number of credits: 5  |   |  |
| Recommended semester: 4.  |   |  |
| Educational level: III.   |   |  |
| Prerequisites:  |   |  |
| Course requirements:  |   |  |
| Learning outcomes:  |   |  |
| Class syllabus:   |   |  |
| Recommended literature:   |   |  |
| Languages necessary to complete the course:   |   |  |
| Notes:  |   |  |
| Past grade distribution Total number of evaluated stud  | ents: 0   |  |
| ABS   | NEABS   |  |
| 0,0   | 0,0   |  |
| Lecturers:  | •   |  |
| <b>Last change:</b> 02.06.2015  |   |  |
| Approved by:  |   |  |

| University: Comenius University in Bratislava   |  |       |  |
|---|--|-------|--|
| Faculty: Faculty of Mathematic  | Faculty: Faculty of Mathematics, Physics and Informatics                         |       |  |
| Course ID:<br>FMFI.KJFB/3-FJF-111/15  | -FJF-111/15 Course title: Individual Study of Science and Research Resources (1) |       |  |
| Educational activities: Type of activities: independent work Number of hours: per week: 10 per level/semester: 140 Form of the course: on-site learning |  |       |  |
| Number of credits: 10   |  |       |  |
| Recommended semester: 1.  |  |       |  |
| Educational level: III.   |  |       |  |
| Prerequisites:  |  |       |  |
| Course requirements:  |  |       |  |
| Learning outcomes:  |  |       |  |
| Class syllabus:   |  |       |  |
| Recommended literature:   |  |       |  |
| Languages necessary to complete the course:   |  |       |  |
| Notes:  |  |       |  |
| Past grade distribution Total number of evaluated students: 7   |  |       |  |
| ABS   |  | NEABS |  |
| 100,0 0,0   |  |       |  |
| Lecturers:  |  |       |  |
| <b>Last change:</b> 02.06.2015  |  |       |  |
| Approved by:  |  |       |  |

| University: Comenius University in Bratislava   |  |  |
|---|--|--|
| Faculty: Faculty of Mathematics, Physics and Informatics  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-112/15  | Course title: Individual Study of Science and Research Resources (2) |  |
| Educational activities: Type of activities: independent work Number of hours: per week: 10 per level/semester: 140 Form of the course: on-site learning |  |  |
| Number of credits: 10   |  |  |
| Recommended semester: 2.  |  |  |
| Educational level: III.   |  |  |
| Prerequisites:  |  |  |
| Course requirements:  |  |  |
| Learning outcomes:  |  |  |
| Class syllabus:   |  |  |
| Recommended literature:   |  |  |
| Languages necessary to complete the course:   |  |  |
| Notes:  |  |  |
| Past grade distribution Total number of evaluated students  | ents: 1  |  |
| ABS   | NEABS  |  |
| 100,0   | 0,0  |  |
| Lecturers:  |  |  |
| <b>Last change:</b> 02.06.2015  |  |  |
| Approved by:  |  |  |

| University: Comenius University in Bratislava   |  |  |
|---|--|--|
| Faculty: Faculty of Mathematic  | s, Physics and Informatics                               |  |
| Course ID:<br>FMFI.KJFB/3-FJFfu-114/14  | Course title: Multiparticle relativistic nuclear physics |  |
| Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semes Form of the course: on-site le |  |  |
| Number of credits: 10   |  |  |
| Recommended semester: 4.  |  |  |
| Educational level: III.   |  |  |
| Prerequisites:  |  |  |
| Course requirements:  |  |  |
| Learning outcomes:  |  |  |
| Class syllabus:   |  |  |
| Recommended literature:   |  |  |
| Languages necessary to complete the course:   |  |  |
| Notes:  |  |  |
| Past grade distribution  Total number of evaluated students   | ents: 0  |  |
| ABS   | NEABS  |  |
| 0,0   |  |  |
| Lecturers: Ing. Štefan Gmuca, CSc.  |  |  |
| <b>Last change:</b> 02.06.2015  |  |  |
| Approved by:  |  |  |

| University: Comenius University in Bratislava   |  |  |
|---|--|--|
| Faculty: Faculty of Mathematic  | s, Physics and Informatics                               |  |
| Course ID:<br>FMFI.KJFB/3-FJFfu-114/14  | Course title: Multiparticle relativistic nuclear physics |  |
| Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semes Form of the course: on-site le |  |  |
| Number of credits: 10   |  |  |
| Recommended semester: 1.  |  |  |
| Educational level: III.   |  |  |
| Prerequisites:  |  |  |
| Course requirements:  |  |  |
| Learning outcomes:  |  |  |
| Class syllabus:   |  |  |
| Recommended literature:   |  |  |
| Languages necessary to complete the course:   |  |  |
| Notes:  |  |  |
| Past grade distribution  Total number of evaluated students   | ents: 0  |  |
| ABS   | NEABS  |  |
| 0,0   |  |  |
| Lecturers: Ing. Štefan Gmuca, CSc.  |  |  |
| <b>Last change:</b> 02.06.2015  |  |  |
| Approved by:  |  |  |

| University: Comenius University in Bratislava  |  |  |
|--|--|--|
| Faculty: Faculty of Mathematic   | s, Physics and Informatics                           |  |
| Course ID:<br>FMFI.KJFB/3-FJFfu-118/14   | Course title: Nuclear reactions with heavy ion beams |  |
| Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning |  |  |
| Number of credits: 5   |  |  |
| Recommended semester: 1.   |  |  |
| Educational level: III.  |  |  |
| Prerequisites:   |  |  |
| Course requirements:   |  |  |
| Learning outcomes:   |  |  |
| Class syllabus:  |  |  |
| Recommended literature:  |  |  |
| Languages necessary to complete the course:  |  |  |
| Notes:   |  |  |
| Past grade distribution  Total number of evaluated students  | ents: 1  |  |
| ABS  | NEABS  |  |
| 100,0 0,0  |  |  |
| Lecturers: Mgr. Martin Veselský, PhD., Mgr. Martin Venhart, PhD.   |  |  |
| <b>Last change:</b> 02.06.2015   |  |  |
| Approved by:   |  |  |

| University: Comenius University in Bratislava            |   |  |
|--|---|--|
| Faculty: Faculty of Mathematics, Physics and Informatics |   |  |
| Course ID:   | Course title:                           |  |
| FMFI.KJFB/3-FJF-701/15                                   | MFI.KJFB/3-FJF-701/15 Obtaining a Grant |  |
| Educational activities:                                  |   |  |
| Type of activities: other Number of hours:               |   |  |
| per week: 20 per level/seme                              | ester: 280                              |  |
| Form of the course: on-site le                           |   |  |
| Number of credits: 20                                    |   |  |
| Recommended semester: 4.                                 |   |  |
| Educational level: III.                                  |   |  |
| Prerequisites:   |   |  |
| Course requirements:                                     |   |  |
| Learning outcomes:                                       |   |  |
| Class syllabus:  |   |  |
| Recommended literature:                                  |   |  |
| Languages necessary to complete the course:              |   |  |
| Notes:   |   |  |
| Past grade distribution                                  |   |  |
| Total number of evaluated students: 0                    |   |  |
| ABS  | NEABS                                   |  |
| 0,0  |   |  |
| Lecturers:   |   |  |
| <b>Last change:</b> 02.06.2015                           |   |  |
| Approved by:   |   |  |

### STATE EXAM DESCRIPTION

University: Comenius University in Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:
FMFI.KJFB/3-FJF-950/15
Passing Dissertation Examination

Number of credits: 20

Recommended semester: 3., 4..

Educational level: III.

State exam syllabus:

Last change: 02.06.2015

Approved by:

| University: Comenius University   | ty in Bratislava   |  |
|---|--|--|
| Faculty: Faculty of Mathematic  | es, Physics and Informatics  |  |
| Course ID:<br>FMFI.KJFB/3-FJFfu-111/14  | Course title: Phenomenology of hadron electromagnetic structure and interactions |  |
| Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semes Form of the course: on-site le |  |  |
| Number of credits: 10   |  |  |
| Recommended semester: 1.  |  |  |
| Educational level: III.   |  |  |
| Prerequisites:  |  |  |
| Course requirements:  |  |  |
| Learning outcomes:  |  |  |
| Class syllabus:   |  |  |
| Recommended literature:   |  |  |
| Languages necessary to complete the course:   |  |  |
| Notes:  |  |  |
| Past grade distribution Total number of evaluated stud  | ents: 0  |  |
| ABS   | NEABS  |  |
| 0,0   | 0,0  |  |
| Lecturers: RNDr. Stanislav Du   | bnička, DrSc.  |  |
| <b>Last change:</b> 02.06.2015  |  |  |
| Approved by:  |  |  |

| University: Comenius University in Bratislava  |  |  |  |
|--|--|--|--|
| Faculty: Faculty of Mathematic   | es, Physics and Informatics  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-402/15   | Course title: Presentation at a Home Conference or at Department Seminar |  |  |
| Educational activities: Type of activities: independen Number of hours: per week: 5 per level/semes Form of the course: on-site le | eter: 70   |  |  |
| Number of credits: 5   |  |  |  |
| Recommended semester: 4.   |  |  |  |
| Educational level: III.  |  |  |  |
| Prerequisites:   |  |  |  |
| Course requirements:   |  |  |  |
| Learning outcomes:   |  |  |  |
| Class syllabus:  |  |  |  |
| Recommended literature:  |  |  |  |
| Languages necessary to compl   | lete the course:   |  |  |
| Notes:   |  |  |  |
| Past grade distribution Total number of evaluated stude  | ents: 0  |  |  |
| ABS NEABS  |  |  |  |
| 0,0  | 0,0  |  |  |
| Lecturers:   | ·  |  |  |
| <b>Last change:</b> 02.06.2015   |  |  |  |
| Approved by:   |  |  |  |

| University: Comenius University in Bratislava   |   |  |  |
|---|---|--|--|
| Faculty: Faculty of Mathematic  | es, Physics and Informatics                               |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-401/15  | Course title: Presentation at an International Conference |  |  |
| Educational activities: Type of activities: independent Number of hours: per week: 20 per level/seme Form of the course: on-site le | ester: 280  |  |  |
| Number of credits: 20   |   |  |  |
| Recommended semester: 6.  |   |  |  |
| Educational level: III.   |   |  |  |
| Prerequisites:  |   |  |  |
| Course requirements:  |   |  |  |
| Learning outcomes:  |   |  |  |
| Class syllabus:   |   |  |  |
| Recommended literature:   |   |  |  |
| Languages necessary to compl  | lete the course:  |  |  |
| Notes:  |   |  |  |
| Past grade distribution Total number of evaluated stude   | ents: 0   |  |  |
| ABS NEABS   |   |  |  |
| 0,0   |   |  |  |
| Lecturers:  | ·   |  |  |
| <b>Last change:</b> 02.06.2015  |   |  |  |
| Approved by:  |   |  |  |

| University: Comenius University in Bratislava   |  |  |  |
|---|--|--|--|
| Faculty: Faculty of Mathematics, Physics and Informatics  |  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-305/15  | Course title: Publication in a Reviewed Periodical |  |  |
| Educational activities: Type of activities: independent work Number of hours: per week: 15 per level/semester: 210 Form of the course: on-site learning |  |  |  |
| Number of credits: 15   |  |  |  |
| Recommended semester: 4.  |  |  |  |
| Educational level: III.   |  |  |  |
| Prerequisites:  |  |  |  |
| Course requirements:  |  |  |  |
| Learning outcomes:  |  |  |  |
| Class syllabus:   |  |  |  |
| Recommended literature:   |  |  |  |
| Languages necessary to complete the course:   |  |  |  |
| Notes:  |  |  |  |
| Past grade distribution Total number of evaluated students: 0   |  |  |  |
| ABS NEABS   |  |  |  |
| 0,0   |  |  |  |
| Lecturers:  |  |  |  |
| <b>Last change:</b> 02.06.2015  |  |  |  |
| Approved by:  |  |  |  |

| University: Comenius University in Bratislava   |  |  |  |
|---|--|--|--|
| Faculty: Faculty of Mathematics, Physics and Informatics  |  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-704/15  |  |  |  |
| Educational activities: Type of activities: other Number of hours: per week: 3 per level/semes Form of the course: on-site le |  |  |  |
| Number of credits: 6  |  |  |  |
| Recommended semester: 4.  |  |  |  |
| Educational level: III.   |  |  |  |
| Prerequisites:  |  |  |  |
| Course requirements:  |  |  |  |
| Learning outcomes:  |  |  |  |
| Class syllabus:   |  |  |  |
| Recommended literature:   |  |  |  |
| Languages necessary to complete the course:   |  |  |  |
| Notes:  |  |  |  |
| Past grade distribution Total number of evaluated students: 0   |  |  |  |
| ABS NEABS   |  |  |  |
| 0,0   |  |  |  |
| Lecturers:  |  |  |  |
| <b>Last change:</b> 02.06.2015  |  |  |  |
| Approved by:  |  |  |  |

| University: Comenius University in Bratislava   |  |  |  |
|---|--|--|--|
| Faculty: Faculty of Mathematics, Physics and Informatics  |  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-702/15  |  |  |  |
| Educational activities: Type of activities: independent work Number of hours: per week: 10 per level/semester: 140 Form of the course: on-site learning |  |  |  |
| Number of credits: 10   |  |  |  |
| Recommended semester: 4.  |  |  |  |
| Educational level: III.   |  |  |  |
| Prerequisites:  |  |  |  |
| Course requirements:  |  |  |  |
| Learning outcomes:  |  |  |  |
| Class syllabus:   |  |  |  |
| Recommended literature:   |  |  |  |
| Languages necessary to complete the course:   |  |  |  |
| Notes:  |  |  |  |
| Past grade distribution Total number of evaluated students: 0   |  |  |  |
| ABS NEABS   |  |  |  |
| 0,0   |  |  |  |
| Lecturers:  |  |  |  |
| <b>Last change:</b> 02.06.2015  |  |  |  |
| Approved by:  |  |  |  |

| <b>University:</b> Comenius Universi  | ty in Bratislava    |                     |  |
|---|---------------------|---------------------|--|
| Faculty: Faculty of Mathematic  | es, Physics and Inf | formatics           |  |
| Course ID:<br>FMFI.KJFB/3-FJF-025/15  |                     |                     |  |
| Educational activities: Type of activities: lecture Number of hours: per week: 3 per level/semes Form of the course: on-site le |                     |                     |  |
| Number of credits: 10   |                     |                     |  |
| Recommended semester: 1.  |                     |                     |  |
| Educational level: III.   |                     |                     |  |
| Prerequisites:  |                     |                     |  |
| Course requirements:  |                     |                     |  |
| Learning outcomes:  |                     |                     |  |
| Class syllabus:   |                     |                     |  |
| Recommended literature:   |                     |                     |  |
| Languages necessary to comp   | lete the course:    |                     |  |
| Notes:  |                     |                     |  |
| Past grade distribution Total number of evaluated stud  | ents: 0             |                     |  |
| ABS NEABS   |                     |                     |  |
| 0,0   |                     |                     |  |
| Lecturers: doc. RNDr. Karol H   | olý, CSc., RNDr.    | Radoslav Böhm, PhD. |  |
| <b>Last change:</b> 02.06.2015  |                     |                     |  |
| Approved by:  |                     |                     |  |

| University: Comenius Univers  | sity in Bratislava  |  |  |
|---|---|--|--|
| Faculty: Faculty of Mathemati   | cs, Physics and Informatics   |  |  |
| Course ID:<br>FMFI.KJFB/3-FJFfu-115/14  | Course title: Selected applications of radiation and particle beams in physics, materials research and medicine |  |  |
| Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/seme Form of the course: on-site l |   |  |  |
| Number of credits: 10   |   |  |  |
| Recommended semester: 1.  |   |  |  |
| Educational level: III.   |   |  |  |
| Prerequisites:  |   |  |  |
| Course requirements:  |   |  |  |
| Learning outcomes:  |   |  |  |
| Class syllabus:   |   |  |  |
| Recommended literature:   |   |  |  |
| Languages necessary to comp   | olete the course:   |  |  |
| Notes:  |   |  |  |
| Past grade distribution  Total number of evaluated students   | dents: 2  |  |  |
| ABS NEABS   |   |  |  |
| 100,0 0,0   |   |  |  |
| Lecturers: RNDr. Ondrej Šauš  | sa, CSc.  |  |  |
| <b>Last change:</b> 02.06.2015  |   |  |  |
| Approved by:  |   |  |  |

| University: Comenius Universi   | ty in Bratislava            |  |  |
|---|-----------------------------|--|--|
| Faculty: Faculty of Mathematic  | es, Physics and Informatics |  |  |
| Course ID:<br>FMFI.KJFB/3-FJFfu-116/14  |                             |  |  |
| Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semes Form of the course: on-site le |                             |  |  |
| Number of credits: 5  |                             |  |  |
| Recommended semester: 1.  |                             |  |  |
| Educational level: III.   |                             |  |  |
| Prerequisites:  |                             |  |  |
| Course requirements:  |                             |  |  |
| Learning outcomes:  |                             |  |  |
| Class syllabus:   |                             |  |  |
| Recommended literature:   |                             |  |  |
| Languages necessary to comp   | ete the course:             |  |  |
| Notes:  |                             |  |  |
| Past grade distribution  Total number of evaluated students   | ents: 0                     |  |  |
| ABS NEABS   |                             |  |  |
| 0,0   | 0,0                         |  |  |
| Lecturers: Mgr. Erik Bartoš, Pl   | nD.                         |  |  |
| <b>Last change:</b> 02.06.2015  |                             |  |  |
| Approved by:  |                             |  |  |

| <b>University:</b> Comenius University  | ity in Bratislava                            |  |  |
|---|--|--|--|
| Faculty: Faculty of Mathematic  | es, Physics and Informatics                  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJFfu-117/14  | Course title: Simulation of detector systems |  |  |
| Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semes Form of the course: on-site le |  |  |  |
| Number of credits: 5  |  |  |  |
| Recommended semester: 1.  |  |  |  |
| Educational level: III.   |  |  |  |
| Prerequisites:  |  |  |  |
| Course requirements:  |  |  |  |
| Learning outcomes:  |  |  |  |
| Class syllabus:   |  |  |  |
| Recommended literature:   |  |  |  |
| Languages necessary to comp   | lete the course:                             |  |  |
| Notes:  |  |  |  |
| Past grade distribution Total number of evaluated stud  | ents: 2                                      |  |  |
| ABS NEABS   |  |  |  |
| 100,0 0,0   |  |  |  |
| Lecturers: Mgr. Martin Venhar   | t, PhD.                                      |  |  |
| <b>Last change:</b> 02.06.2015  |  |  |  |
| Approved by:  |  |  |  |

| University: Comenius Universi   | ity in Bratislava   |           |  |
|---|---|-----------|--|
| Faculty: Faculty of Mathematic  | es, Physics and Inf   | Formatics |  |
| Course ID:<br>FMFI.KJFB/3-FJF-036/15  | Course title: Subnuclear Physics Experiment Modelling and Data Analysis |           |  |
| Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semes Form of the course: on-site le |   |           |  |
| Number of credits: 10   |   |           |  |
| Recommended semester: 2.  |   |           |  |
| Educational level: III.   |   |           |  |
| Prerequisites:  |   |           |  |
| Course requirements:  |   |           |  |
| Learning outcomes:  |   |           |  |
| Class syllabus:   |   |           |  |
| Recommended literature:   |   |           |  |
| Languages necessary to comp   | lete the course:  |           |  |
| Notes:  |   |           |  |
| Past grade distribution Total number of evaluated stud  | ents: 6   |           |  |
| ABS NEABS   |   |           |  |
| 100,0 0,0   |   |           |  |
| Lecturers: prof. RNDr. Stanisla   | av Tokár, DrSc.   |           |  |
| <b>Last change:</b> 02.06.2015  |   |           |  |
| Approved by:  |   |           |  |

| University: Comenius University in Bratislava   |  |  |
|---|--|--|
| Faculty: Faculty of Mathematics, Physics and Informatics  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-802/15  | Course title: Teaching Practice in the Summer Semester |  |
| Educational activities: Type of activities: other Number of hours: per week: 8 per level/semester: 112 Form of the course: on-site learning |  |  |
| Number of credits: 8  |  |  |
| Recommended semester: 2.  |  |  |
| Educational level: III.   |  |  |
| Prerequisites:  |  |  |
| Course requirements:  |  |  |
| Learning outcomes:  |  |  |
| Class syllabus:   |  |  |
| Recommended literature:   |  |  |
| Languages necessary to complete the course:   |  |  |
| Notes:  |  |  |
| Past grade distribution Total number of evaluated students: 0   |  |  |
| ABS NEABS   |  |  |
| 0,0   |  |  |
| Lecturers:  |  |  |
| <b>Last change:</b> 02.06.2015  |  |  |
| Approved by:  |  |  |

| University: Comenius University in Bratislava  |  |  |  |
|--|--|--|--|
| Faculty: Faculty of Mathematics, Physics and Informatics   |  |  |  |
| Course ID:<br>FMFI.KJFB/3-FJF-801/15   | Course title: Teaching Practice in the Winter Semester |  |  |
| Educational activities: Type of activities: other Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning |  |  |  |
| Number of credits: 8   |  |  |  |
| Recommended semester: 1.   |  |  |  |
| Educational level: III.  |  |  |  |
| Prerequisites:   |  |  |  |
| Course requirements:   |  |  |  |
| Learning outcomes:   |  |  |  |
| Class syllabus:  |  |  |  |
| Recommended literature:  |  |  |  |
| Languages necessary to complete the course:  |  |  |  |
| Notes:   |  |  |  |
| Past grade distribution Total number of evaluated students: 3  |  |  |  |
| ABS NEABS  |  |  |  |
| 100,0 0,0  |  |  |  |
| Lecturers:   |  |  |  |
| <b>Last change:</b> 02.06.2015   |  |  |  |
| Approved by:   |  |  |  |