

Course descriptions

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COURSE DESCRIPTION

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|--|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-108/22 | | Course title: Activating Methods and Their Use in Learning | | | |
| 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: 2 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 4 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. PaedDr. Elena Čipková, PhD., doc. RNDr. Štefan Karolčík, PhD. | | | | | |
| Last change: 11.10.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

| | | | | | |
|---|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFI.KDMFI/2-UFY-165/22 | | Course title: Advanced Practicum of Physics School Experiments | | | |
| 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: 2 | | | | | |
| Recommended semester: 4. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: Continuous assessment: individual work - preparation and demonstration of the experiment (3x20 marks), lab reports (2x20 marks). Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%. Credits will not be awarded if a student scores less than 50%. | | | | | |
| Learning outcomes: Students will be familiar with a number of experiments with simple equipment. They will know the requirements for a simple physics experiment. Preparation of experiments using modern technology and using DT. They will gain experience in presenting simple experiments, consolidating and deepening knowledge of physics and examples of ways to help students develop their physical knowledge. They will know the sources of information about low-cost experiments. | | | | | |
| Class syllabus: Experiments especially on the topics of pressure, compressive force, fluid mechanics, rigid body mechanics, properties of substances of different states, transformations of states, demonstration experiments in electromagnetism with non-traditional equipment. | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovak and English. | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 51 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: PaedDr. Peter Horváth, PhD. | | | | | |
| Last change: 18.06.2022 | | | | | |

Approved by:

COURSE DESCRIPTION

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|--|-----|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFI.KDMFI/2-UFY-256/15 | | Course title: Assessment of the Science Education Results | | | |
| Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning | | | | | |
| Number of credits: 2 | | | | | |
| Recommended semester: 4. | | | | | |
| Educational level: II., N | | | | | |
| Prerequisites: | | | | | |
| Course requirements: Continuous assessment: discussions (3x20 marks), presentation of the results of individual work (40 marks) Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% Credits will not be awarded if student scores less than 50%. | | | | | |
| Learning outcomes: The graduate will know the basic principles for creating goals of physics and science education for formal education and also the relationship between formal and non-formal education. They will know the basic ways of evaluating the results of physics and science education. | | | | | |
| Class syllabus: Objectives of education, Taxonomy of objectives. Educational methods and methods of measuring educational results at the class and school level. Nationwide testing. High stakes testing. International measurements in science education. | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovenský a anglický. | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 25 | | | | | |
| A | B | C | D | E | FX |
| 88,0 | 8,0 | 0,0 | 0,0 | 0,0 | 4,0 |
| Lecturers: PaedDr. Lukáš Bartošovič, PhD. | | | | | |
| Last change: 18.06.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

| | |
|--|---|
| Academic year: 2022/2023 | |
| University: Comenius University Bratislava | |
| Faculty: Faculty of Natural Sciences | |
| Course ID: FMFI.KAFZM/2-UFY-220/00 | Course title: Astronomy and Meteorology |
| Educational activities: Type of activities: practicals / lecture Number of hours: per week: 1 / 2 per level/semester: 14 / 28 Form of the course: on-site learning | |
| Number of credits: 4 | |
| Recommended semester: 4. | |
| Educational level: II. | |
| Prerequisites: | |
| Course requirements: Continuous assessment: tests (2x30 marks), discussions (4x10 marks). Indicative assessment: A: 100-90%, B: 90-80%, C: 80-70%, D: 70-60%, E: 60-50%. Credits will not be awarded if a student scores less than 50%. Scale of assessment (preliminary/final): 100/0 | |
| Learning outcomes: Students will know the basic concepts in astronomy, the origin and development of individual cosmic bodies and structures, an explanation of the physical nature of atmospheric processes and processes taking place in the air, which create weather and climate, acquaintance with methods of forecasting synoptic situations and weather conditions. | |
| Class syllabus: History of astronomy, spherical astronomy (coordinate systems, stellar aberration, parallax, refraction), Solar system (Sun, planets, dwarf planets, comets, asteroids, meteors), origin and evolution of stars (Jeans critical mass, H-R diagram, nucleogenesis of elements, final evolution stages of stars), galactic astronomy, cosmology. Subject of meteorology, basic conceptions, role and organization of meteorological service. Basic meteorological elements and instrumentation of meteorological station. State equation, principal statics equation, barometric formula. Condensation and sublimation of water vapour. Adiabatic and pseudoadiabatic phenomena. Thermal stratification. General circulation. Air masses. Atmospheric fronts. Pressure systems. Weather predictions. Human influence on climate. | |
| Recommended literature: Vanýsek V. 1980, Základy astronómie a astrofyziky, Academia Praha Beatty J. K., Petersen C. C., Chaikin A. eds.: 1999, The New Solar System, Sky Publ. Corp. and Cambridge Univ. Press Netopil, R. a kol.: Fysická geografie 1. SPN, Praha, 1984, 272 s. Zverev, A. S.: Synoptická meteorológia. Alfa, Bratislava, 1986, 711 s. Munzar, J. a kol.: Malý průvodce meteorologií. Praha, 1989, 248 s. Bednář, J.: Meteorologie. Portál, s.r.o., Praha, 2003, 224 s., ISBN 80-7178-653-5 | |

Glossary of meteorology. Second edition. American Meteorological Society, Boston, 2000, 855 s., ISBN 1-878220-34-9

Languages necessary to complete the course:

Slovak and English.

Notes:

Past grade distribution

Total number of evaluated students: 84

| A | B | C | D | E | FX |
|-------|------|------|-----|-----|-----|
| 85,71 | 9,52 | 4,76 | 0,0 | 0,0 | 0,0 |

Lecturers: RNDr. Marián Melo, PhD., doc. RNDr. Juraj Tóth, PhD.

Last change: 20.06.2022

Approved by:

COURSE DESCRIPTION

| | | | | | |
|--|-----|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KJ/N-mXCJ-074/22 | | Course title: CLIL 1 – Content and Language Integrated Learning | | | |
| 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: 2 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 14 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: Mgr. Barbara Kordíková, PhD., Mgr. Karin Rózsová Wolfová | | | | | |
| Last change: 26.09.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-----|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KJ/N-mXCJ-075/22 | | Course title: CLIL 2 – Content and Language Integrated Learning | | | |
| 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: 2 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: PriF.KJ/N-mXCJ-074/22 - CLIL 1 – Content and Language Integrated Learning | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 11 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: Mgr. Barbara Kordíková, PhD., Mgr. Karin Rózsová Wolfová | | | | | |
| Last change: 21.06.2023 | | | | | |
| Approved by: | | | | | |

STATE EXAM DESCRIPTION

| | |
|---|--|
| Academic year: 2022/2023 | |
| University: Comenius University Bratislava | |
| Faculty: Faculty of Natural Sciences | |
| Course ID: PriF.KDPP/N-UmCH-952/22 | Course title: Chemistry and Didactics of Chemistry |
| Number of credits: 5 | |
| Educational level: II. | |
| State exam syllabus: | |
| Last change: 20.06.2023 | |
| Approved by: | |

COURSE DESCRIPTION

| | | | | | |
|--|-------|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KOrCh/N-mCOR-106/22 | | Course title: Chemistry of Polymers | | | |
| 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: 2 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 3 | | | | | |
| A | B | C | D | E | FX |
| 0,0 | 100,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: Mgr. Juraj Kronek, PhD., Mgr. Zuzana Benková, PhD. | | | | | |
| Last change: 14.06.2023 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

| | | | | | |
|---|------|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFL.KDMFI/2-UFY-205/22 | | Course title: Current Trends in Physics Education | | | |
| Educational activities: Type of activities: practicals / lecture Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning | | | | | |
| Number of credits: 4 | | | | | |
| Recommended semester: 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: Continuous assessment: project topic selection (10 marks), final project submission (20 marks), presentation (10 marks), peer-assessment of other projects (20 marks); Examination: written (20 marks), oral (20 marks) Indicative evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50% . Credits will not be awarded if a student scores less than 50%. | | | | | |
| Learning outcomes: The graduate will be didactically prepared for the tasks assigned to the beginning teacher. He will be able to choose from proven as well as modern methods and strategies in physics education. | | | | | |
| Class syllabus: Basic pedagogical documents, standards. Current concepts of teaching physics. Activities in teaching physics and developing students' competencies. Creativity-developing tasks, contextual tasks, project-type tasks. Means for checking and evaluating students' knowledge, creating tests, wide-ranging testing. Work with students with increased interest in physics (physics circles, Correspondence seminar, Physics Olympiad, Tournament of young physicists.) Department of Physics and school agenda. Control of the teaching process. Beginner teacher, school expectations from physics teacher graduates, teacher qualification process. | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovak and English. | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 56 | | | | | |
| A | B | C | D | E | FX |
| 92,86 | 5,36 | 1,79 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. RNDr. Peter Demkanin, PhD., PaedDr. Tünde Kozánek Kiss, PhD. | | | | | |

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| Last change: 18.06.2022 |
| Approved by: |

COURSE DESCRIPTION

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|--|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFI.KDMFI/2-UFY-237/22 | | Course title: Design of Educational Multimedia Materials | | | |
| Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning | | | | | |
| Number of credits: 2 | | | | | |
| Recommended semester: 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: After the first part of the semester, the student chooses a topic for the semester work (10 marks), elaborates (20 marks for preliminary work), submits the semester work (30 marks evaluation of the submitted version) and defends it (10 marks). Peer assessment of the work of colleagues is for 30 marks. To obtain credits, the student must obtain at least 50% marks. | | | | | |
| Learning outcomes: The student will have developed skills to design materials for physics education. | | | | | |
| Class syllabus: Design of the content of the text part, graphic design, stylistics, development of the pillars of the mind (according to Prof. Tokuham-Esponos), curriculum design (according to Klentschy). Approaches to the choice of topic for the elaboration of the semester work. Writing a term paper and defending it against peers. | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovak and English. | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 10 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. RNDr. Peter Demkanin, PhD. | | | | | |
| Last change: 18.06.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

| | | | | | |
|---|-------|--|-----|-----|------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUCH-103/22 | | Course title: Didactics of Chemistry 1 | | | |
| Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning | | | | | |
| Number of credits: 4 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 26 | | | | | |
| A | B | C | D | E | FX |
| 73,08 | 23,08 | 0,0 | 0,0 | 0,0 | 3,85 |
| Lecturers: prof. RNDr. Miroslav Prokša, CSc., Mgr. Lenka Šikulíncová, PhD. | | | | | |
| Last change: 09.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

| | | | | | |
|---|-------|--|-----|------|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUCH-104/22 | | Course title: Didactics of Chemistry 2 | | | |
| Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning | | | | | |
| Number of credits: 4 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 13 | | | | | |
| A | B | C | D | E | FX |
| 46,15 | 46,15 | 0,0 | 0,0 | 7,69 | 0,0 |
| Lecturers: prof. RNDr. Miroslav Prokša, CSc., PaedDr. Anna Drozdíková, PhD. | | | | | |
| Last change: 09.08.2022 | | | | | |
| Approved by: | | | | | |

STATE EXAM DESCRIPTION

| | |
|---|--|
| Academic year: 2022/2023 | |
| University: Comenius University Bratislava | |
| Faculty: Faculty of Natural Sciences | |
| Course ID: FMFLKDMFI/2-UFY-961/15 | Course title: Didactics of Physics |
| Number of credits: 3 | |
| Educational level: II. | |
| Course requirements: The final examination is realized by the student's discussion with the members of the commission on two topics from the content exams. Assessed: illustration of concepts on suitable examples / contexts / situations 0-3 points; correctness of physical terminology 0-3 points; intelligibility of statements 0-3 points; responding to Commission questions concerning selected heading 0-3 points; responding to other commission questions broader context 0-3 points. Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% The exam is successfully passed if the student obtains at least 50% of points. | |
| Learning outcomes: The graduate is ready to perform the tasks assigned to a beginning physics teacher. | |
| Class syllabus: Movement and force, movement on a circle. Movement of a mass point along a circle. Movements of bodies in the homogeneous gravitational field of the Earth from a kinematic point of view. Movement and force, impulse of force and change of momentum Newton's laws of motion. Static and dynamic friction force during shear friction on a horizontal surface. Inclined plane, without friction, with friction. Momentum and impulse of force. The law of conservation of momentum. Mechanical work, mechanical energy. The work of constant force. Variable force work - from a graph of force versus time. Working when stretching a linear spring. Potential energy of the body in a homogeneous gravitational field. Potential energy of the body in the radial gravitational field of the Earth. Kinetic energy of sliding motion. Mechanical energy conservation law. Rigid body. Center of gravity. Equilibrium positions. Moment of force. Moment sentence. Simple machines - lever, pulley. Body stability. Kinetic energy of a rotating body. The moment of inertia of a rigid body. Momentum. Momentum conservation. Steiner's theorem. Radial gravitational field of the Earth. Newton's general law of gravitation. Movement of a body in a radial gravitational field, kinetic and potential energy of a body moving in a radial gravitational field. Geostationary satellite. Fluid statics. Pressure. Hydrostatic pressure. Archimedes' law. Atmospheric pressure, changes in pressure and air density with altitude. Atmospheric pressure measurement. Ideal fluid flow. Continuity equation. Bernoulli's equation for horizontal flow and for flow with vertical cant. Heat and temperature. Mass heat capacity. Changes in energy states. Calorimetric equation. It happens in an ideal gas, equation of state. Isothermal plot. Isobaric story. Isochoric plot. Adiabatic story. Equation of state of an ideal gas. Electric voltage, electric current, electric resistance. Electromotive and terminal supply voltage. Work and power of direct current. Short circuit in electrical circuit. | |

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| <p>DC circuit. Voltage and current measurement. Ohm's law for a part of an electrical circuit. The resulting resistance of resistors connected in series and side by side. Kirchhoff's laws. Dependence of conductor resistance on its temperature and dimensions. Volt-ampere characteristic of resistor and filament lamp.</p> <p>Stationary magnetic field. Description of the magnetic field. Magnetic field of a permanent magnet. Magnetic field of a conductor with electric current. Electromagnet. Force of magnetic field on current conductor. Mutual force action of two conductors with current.</p> <p>Unsteady magnetic field. Electromagnetic induction. Lenz's law. Transformation of alternating voltages. Power plant model, transmission system.</p> <p>Oscillating movement. Spring oscillator. Mathematical pendulum. Relationship between harmonic oscillation and uniform motion along a circle. Kinematics and dynamics of the mentioned oscillators, graphs of dependences of instantaneous values of quantities describing oscillating motion from time and from instantaneous deviation from equilibrium position.</p> <p>Waves. Equation of successive mechanical wave. Wave interference. Standing waves on a stretched fiber. Sound and its properties. Sound speed measurement.</p> <p>Light and its properties. Light as an electromagnetic wave. Determination of water refractive index. Wave properties of light. Decomposition of light by a prism and an optical grating. RGB, CYM.</p> <p>Atomic physics. Continuous and line emission and absorption spectra. Photoelectric effect, X-rays, origin and properties. Thomson's discovery of the electron. Rutherford's experiment.</p> <p>Nuclear Physics. Radioactivity, half-life, fission and fusion.</p> <p>Distances in space and basic concepts of stellar evolution.</p> <p>Theoretical methods of cognition - classification, analytical-synthetic method, inductive-deductive method, analogy; Empirical methods of cognition - observation in physics education, developing students' skills associated with observation and communicating the results of observation; Empirical methods of cognition - measuring the values of a physics quantity, direct and indirect measurement; Empirical methods of cognition - measuring the interdependence of physical quantities; Empirical methods of cognition - experiment - student activity; Empirical methods of cognition - experiment - teacher planning; Classification of school experiments; Teaching methods - contextual teaching; Communication methods in school physics - graph linearization; Theoretical methods of cognition - graphic integration; Experiments and experiments with simple tools - their role and examples; Physics problem - formative function of a physics problem; Physics task - the function of the physics task in summative evaluation; The role of the teacher and the role of the student in physics education; Objectives of physics education; Defining the content of physics education curriculum. Application of interdisciplinary relationships in teaching physics. Realization of cross-curricular goals by physics education; Formal, non-formal and informal physics education.</p> |
| State exam syllabus: |
| <p>Recommended literature:</p> <p>Literature recommended by subjects of master's study.</p> <p>Physics textbooks for lower and higher secondary schools.</p> <p>Selected foreign physics textbook.</p> <p>Documents of the selected educational system.</p> |
| <p>Languages necessary to complete the course:</p> <p>Slovak and English.</p> |
| Last change: 12.11.2021 |
| Approved by: |

COURSE DESCRIPTION

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|--|--|
| Academic year: 2022/2023 | |
| University: Comenius University Bratislava | |
| Faculty: Faculty of Natural Sciences | |
| Course ID: FMFL.KDMFI/2-UFY-104/22 | Course title: Didactics of Physics (1) |
| Educational activities: Type of activities: laboratory practicals / lecture Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning | |
| Number of credits: 5 | |
| Recommended semester: 1. | |
| Educational level: II., N | |
| Prerequisites: | |
| Course requirements: During the semester, there will be two written examinations, from which the student can obtain max. 2x 15 marks. In the middle of the semester, the student submits a plan of semester work - max. 10 marks. At the end of the semester, the student submits a semester work - max. 20 marks and lab reports (2x10 marks). In the exam period, there will be a structured discussion, where the student can get max. 20 marks. Credits will not be awarded if the student scores less than 50% of the marks. | |
| Learning outcomes: Graduates will look at teaching physics from a teacher's perspective. They will know the goals, methods and styles of teaching physics. Graduates will know commercially available and used teaching equipment; they will use them appropriately. They will be able to carry out experiments with simple tools and the use of modern technology and with the help of digital technologies. They will be able to plan lessons in which empirical methods are applied, both a teacher demonstration experiment and, in particular, a student heuristic experiment. | |
| Class syllabus: Physics didactics and teacher training. Knowledge system and its structure. Cognition in cycles. Conditions necessary for the child to learn. Ways to support learning (scaffolding). Physics knowledge and teaching physics. Cognition, methods of cognition. Models and modelling in physics education. The function of experiments in physics education. Observation and measurement. Physical procedures in teaching science subjects. Solution and function of physical problems in teaching. Objectives of teaching physics. Experiments and experiments mainly in the fields of geometric and wave optics, atomic physics. | |
| Recommended literature: | |
| Languages necessary to complete the course: | |
| Notes: | |

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|---|------|------|-----|-----|------|
| Past grade distribution | | | | | |
| Total number of evaluated students: 81 | | | | | |
| A | B | C | D | E | FX |
| 61,73 | 28,4 | 8,64 | 0,0 | 0,0 | 1,23 |
| Lecturers: doc. PaedDr. Viera Haverlíková, PhD., PaedDr. Peter Horváth, PhD. | | | | | |
| Last change: 18.06.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-------|--|-----|------|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFI.KDMFI/2-UFY-106/15 | | Course title: Didactics of Physics (2) | | | |
| Educational activities: Type of activities: practicals / lecture Number of hours: per week: 1 / 1 per level/semester: 14 / 14 Form of the course: on-site learning | | | | | |
| Number of credits: 3 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II., N | | | | | |
| Prerequisites: | | | | | |
| Course requirements: Continuous assessment: seminar activities (4x10 marks) Exam: written (60 marks) Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% Credits will not be awarded if a student scores less than 50%. | | | | | |
| Learning outcomes: Graduates will have developed skills needed in creating a lesson in physics, choosing the goals of the lesson, ways and means of fulfilling these goals. They will also have developed personal qualities, support for the assertive behavior and communication skills of the future physics teacher. | | | | | |
| Class syllabus: From learning sequence, through the topic in teaching to the thematic unit. Objectives of teaching physics at primary and secondary school. Physics as a part of science education and as a part of technology basics. Specifics of teacher's work in non-formal education (physics circle, club, physical competitions), non-formal education of students outside school. Examples of teaching sequences and topics for analysis are mainly in the areas of electromagnetic induction, mechanical and electromagnetic waves, geometric and wave optics. | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovak and English. | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 74 | | | | | |
| A | B | C | D | E | FX |
| 68,92 | 21,62 | 5,41 | 2,7 | 1,35 | 0,0 |
| Lecturers: doc. PaedDr. Viera Haverlíková, PhD. | | | | | |

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| Last change: 18.06.2022 |
| Approved by: |

COURSE DESCRIPTION

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|---|-------|--|-------|------|------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUCH-105/22 | | Course title: Didactics of School Experiments in Chemistry 1 | | | |
| 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: 2 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 26 | | | | | |
| A | B | C | D | E | FX |
| 3,85 | 57,69 | 15,38 | 15,38 | 3,85 | 3,85 |
| Lecturers: PaedDr. Anna Drozdíková, PhD. | | | | | |
| Last change: 09.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-------|--|-------|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUCH-106/22 | | Course title: Didactics of School Experiments in Chemistry 2 | | | |
| 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: 2 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: PriF.KDPP/N-mUCH-105/22 - Didactics of School Experiments in Chemistry 1 | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 13 | | | | | |
| A | B | C | D | E | FX |
| 7,69 | 38,46 | 30,77 | 23,08 | 0,0 | 0,0 |
| Lecturers: PaedDr. Anna Drozdíková, PhD. | | | | | |
| Last change: 09.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-------|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUCH-107/22 | | Course title: Digital Technologies in Chemistry Education | | | |
| 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: 2 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 13 | | | | | |
| A | B | C | D | E | FX |
| 69,23 | 30,77 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: Mgr. Lenka Šikulíncová, PhD. | | | | | |
| Last change: 22.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-106/22 | | Course title: Education to Marriage and Parenthood | | | |
| 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: 2 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 25 | | | | | |
| A | B | C | D | E | FX |
| 96,0 | 0,0 | 0,0 | 0,0 | 0,0 | 4,0 |
| Lecturers: RNDr. Soňa Nagyová, PhD. | | | | | |
| Last change: 22.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFI.KDMFI+KEF/2-UFY-212/22 | | Course title: Electronics and Communication for Teachers | | | |
| 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: 2 | | | | | |
| Recommended semester: 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: Continuous assessment: individual work (30 marks), evaluation of micro-outputs at the seminar (2x15 marks) Exam: test (20 marks), presentation of individual work results (20 marks) Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% Credits will not be awarded if a student scores less than 50%. | | | | | |
| Learning outcomes: The graduate will understand the basic concepts of electronics, signal digitization and the physical nature of information transmission. The graduate will know the ways of including topics from the physical foundations of communication and electronics in the curriculum of primary and secondary schools in the selected foreign education system. | | | | | |
| Class syllabus: Implementation of simple experiments using basic electronic components. Analysis of possible directions of expansion and updating of the content of the current curriculum of physics of primary and secondary school in the field of electromagnetism (electromagnetic waves and signal transmission), optics (optical fibers) circuits with electric current (classification of electronic elements). | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovak and English. | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 60 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |

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| Lecturers: doc. RNDr. František Kunderacik, CSc., PaedDr. Lukáš Bartošovič, PhD. |
| Last change: 18.06.2022 |
| Approved by: |

COURSE DESCRIPTION

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|--|-----|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KOrCh/N-mUCH-098/22 | | Course title: Everyday Life Chemistry | | | |
| 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: 2 | | | | | |
| Recommended semester: 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 10 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. Ing. Mária Mečiarová, PhD., Mgr. Henrieta Stankovičová, PhD. | | | | | |
| Last change: 13.09.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KGP/N-mUXX-132/22 | | Course title: Geology for Natural Scientists | | | |
| Educational activities: Type of activities: lecture / seminar Number of hours: per week: 1 / 1 per level/semester: 14 / 14 Form of the course: on-site learning | | | | | |
| Number of credits: 2 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 3 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: prof. Mgr. Natália Hlavatá Hudáčková, PhD., doc. Mgr. Peter Uhlík, PhD., prof. RNDr. Martin Bednarik, PhD., doc. RNDr. Ľubomír Jurkovič, PhD. | | | | | |
| Last change: 06.09.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-----|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KOrCh/N-mUCH-101/22 | | Course title: Green Chemistry | | | |
| 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: 2 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 11 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. Ing. Mária Mečiarová, PhD. | | | | | |
| Last change: 13.09.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-------|---|-----|-----|------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KOrCh/N-mUCH-099/22 | | Course title: Industrial Chemistry for Teachers | | | |
| 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: 2 | | | | | |
| Recommended semester: 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 23 | | | | | |
| A | B | C | D | E | FX |
| 30,43 | 39,13 | 17,39 | 0,0 | 8,7 | 4,35 |
| Lecturers: RNDr. Jana Chrappová, PhD., Mgr. Tibor Peňaška, PhD. | | | | | |
| Last change: 10.07.2023 | | | | | |
| Approved by: | | | | | |

STATE EXAM DESCRIPTION

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|---|---|
| Academic year: 2022/2023 | |
| University: Comenius University Bratislava | |
| Faculty: Faculty of Natural Sciences | |
| Course ID: PriF.KDPP/N-mOBH-101/22 | Course title: Master's Thesis Defence |
| Number of credits: 10 | |
| Educational level: II. | |
| State exam syllabus: | |
| Last change: 22.08.2022 | |
| Approved by: | |

COURSE DESCRIPTION

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|---|-----|-------|---|------|------|------|
| Academic year: 2022/2023 | | | | | | |
| University: Comenius University Bratislava | | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | | |
| Course ID: PriF.KDPP/N-mUXX-102/22 | | | Course title: Master's Thesis Seminar | | | |
| Educational activities: Type of activities: seminar Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning | | | | | | |
| Number of credits: 3 | | | | | | |
| Recommended semester: 3. | | | | | | |
| Educational level: II. | | | | | | |
| Prerequisites: | | | | | | |
| Course requirements: | | | | | | |
| Learning outcomes: | | | | | | |
| Class syllabus: | | | | | | |
| Recommended literature: | | | | | | |
| Languages necessary to complete the course: | | | | | | |
| Notes: | | | | | | |
| Past grade distribution Total number of evaluated students: 86 | | | | | | |
| A | ABS | B | C | D | E | FX |
| 54,65 | 0,0 | 20,93 | 15,12 | 1,16 | 5,81 | 2,33 |
| Lecturers: prof. RNDr. Miroslav Prokša, CSc., doc. RNDr. Štefan Karolčík, PhD., doc. RNDr. PaedDr. Zuzana Haláková, PhD., doc. PaedDr. Elena Čipková, PhD., RNDr. Soňa Nagyová, PhD., RNDr. Peter Likavský, CSc., RNDr. Henrieta Mázorová, PhD., PaedDr. Anna Drozdíková, PhD., Mgr. Lenka Šikulíncová, PhD., prof. RNDr. Ladislav Tolmáči, PhD., doc. Mgr. Marcel Horňák, PhD., RNDr. Ivan Ružek, PhD., doc. RNDr. František Križan, PhD., RNDr. Katarína Danielová, PhD., Mgr. Marta Nevřelová, PhD., PhDr. ThLic. Peter Ikhardt, PhD., Mgr. Štefan Zolcer, PhD., RNDr. Jana Ciceková, PhD., doc. RNDr. Eliška Gálová, PhD., prof. RNDr. Andrea Ševčovičová, PhD., RNDr. Jana Chrappová, PhD., doc. RNDr. Jozef Tatiersky, PhD., doc. Ing. Mária Mečiarová, PhD. | | | | | | |
| Last change: 14.09.2022 | | | | | | |
| Approved by: | | | | | | |

COURSE DESCRIPTION

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|---|-----|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-127/22 | | Course title: Means of Motivation in Teaching Chemistry | | | |
| Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning | | | | | |
| Number of credits: 4 | | | | | |
| Recommended semester: 4. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 11 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: prof. RNDr. Miroslav Prokša, CSc. | | | | | |
| Last change: 22.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|------|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFL.KDMFI/2-UFY-115/15 | | Course title: Methods for Solving Physics Problems | | | |
| Educational activities: Type of activities: seminar Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning | | | | | |
| Number of credits: 3 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II., N | | | | | |
| Prerequisites: | | | | | |
| Course requirements: Continuous assessment: homeworks (4x10 marks), discussions (3x10 marks), tests (2x15 marks). Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% Credits will not be awarded if a student scores less than 50%. | | | | | |
| Learning outcomes: The graduate will know several forms of physical problems, selected methods of assigning and solving physical problems and methods of evaluating students' solutions to physical problems. Will be able to actively use physics tasks in secondary school. | | | | | |
| Class syllabus: Physics task, physics problem. Assignment. The general plan of the process of solving. Modelling in solving a physical problem. Mathematization of the task situation. Graphic and numerical solution of the problem. Dynamic modelling method. Solution methods using computer programs and audiovisual means. Solution methods using the system of computer-assisted science laboratory Coach. | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovak and English. | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 65 | | | | | |
| A | B | C | D | E | FX |
| 90,77 | 6,15 | 3,08 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. PaedDr. Klára Velmovská, PhD. | | | | | |
| Last change: 18.06.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KAlCh/N-mUCH-112/22 | | Course title: Methods of Chemical Analysis in School Experiments | | | |
| Educational activities: Type of activities: practicals / seminar Number of hours: per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning | | | | | |
| Number of credits: 3 | | | | | |
| Recommended semester: 1., 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 0 | | | | | |
| A | B | C | D | E | FX |
| 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. RNDr. Radoslav Halko, PhD., RNDr. Simona Procházková, PhD. | | | | | |
| Last change: 30.09.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-----|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-109/22 | | Course title: Mobile Science Learning 1 | | | |
| 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: 2 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 0 | | | | | |
| A | B | C | D | E | FX |
| 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. PaedDr. Elena Čipková, PhD., PhDr. Michael Fuchs | | | | | |
| Last change: 21.06.2023 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

| | | | | | |
|---|-----|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-110/22 | | Course title: Mobile Science Learning 2 | | | |
| 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: 2 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 1 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. PaedDr. Elena Čipková, PhD., PhDr. Michael Fuchs | | | | | |
| Last change: 21.06.2023 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-131/22 | | Course title: New Concepts of Teaching | | | |
| 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: 2 | | | | | |
| Recommended semester: 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 4 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. RNDr. PaedDr. Zuzana Haláková, PhD. | | | | | |
| Last change: 22.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-------|--|------|------|------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-124/22 | | Course title: Pedagogical Assessment | | | |
| 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: 2 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 57 | | | | | |
| A | B | C | D | E | FX |
| 22,81 | 52,63 | 15,79 | 5,26 | 1,75 | 1,75 |
| Lecturers: PhDr. ThLic. Peter Ikhardt, PhD. | | | | | |
| Last change: 27.09.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-------|--|-------|-------|------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-125/22 | | Course title: Pedagogical Research Methodology | | | |
| Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning | | | | | |
| Number of credits: 4 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 82 | | | | | |
| A | B | C | D | E | FX |
| 24,39 | 23,17 | 23,17 | 14,63 | 10,98 | 3,66 |
| Lecturers: prof. RNDr. Miroslav Prokša, CSc., PaedDr. Anna Drozdíková, PhD. | | | | | |
| Last change: 09.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|--|
| Academic year: 2022/2023 | |
| University: Comenius University Bratislava | |
| Faculty: Faculty of Natural Sciences | |
| Course ID: PriF.KDPP/N-mUXX-126/22 | Course title: Philosophical Aspects of Education |
| Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning | |
| Type, volume, methods and workload of the student - additional information 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: 2 | |
| Recommended semester: 3. | |
| Educational level: II. | |
| Prerequisites: | |
| Course requirements: Course requirements: During the teaching period of the semester: participation, activity, elaboration of assignments or final test. The test or assignments will be from the material covered during the semester. The student can get a maximum of 50 points, the minimum for successful completion of the course is 30 points. Classification scale: A: 100-92%, B: 91-84%; C: 83-76%, D: 75-68%, E: 67-60% FX: 0-59% Violation of academic ethics results in the cancellation of the obtained points in the relevant evaluation item. The teacher accepts max. 2 absences with proven documents. Interim / final evaluation weight: 100% in the examination period | |
| Learning outcomes: Learning outcomes: Upon successful completion of the course, students will know: A: in the field of knowledge: <ul style="list-style-type: none"> • What is philosophy, its basic structure, goals and mission • What issues do philosophy of education and philosophical anthropology address, what are their goals and mission? • What is the significance of philosophy for solving problems of theory and practice of education B: in the field of skills: <ul style="list-style-type: none"> • Orientation in basic philosophical problems, disciplines and concepts • Ask questions and formulate answers regarding philosophical questions of education • Think independently about philosophical issues of education | |
| Class syllabus: Class syllabus: | |

| | | | | | |
|---|-------|-------|-----|------|------|
| 1. The concept and structure of philosophy 2. Philosophical and pedagogical anthropology 3. Philosophical anthropology and axiology 4. Philosophy of education I. 5. Philosophy of education II. 6. Philosophy of culture and values 7. Ethical issues and perspectives of education | | | | | |
| Recommended literature: ANZENBACHER, Arno: Úvod do filosofie. Praha: SPN, 1991. ISBN: 80-04-26038-1. BREZINKA, Wolfgang: Filozofické základy výchovy. Praha: Zvon, 1996. ISBN: 80-7113-169-5 CORETH, Emerich: Co je člověk? Základy filozofické antropologie. Praha: Zvon, 1994. ISBN: 80-7113-098-2 POPKIN, Richard. H., STROLL, Avrum: Filozofie pro každého. Praha: Ivo Železný, 2000. ISBN: 80-240-0257-4 PELCOVÁ, Naděžda: Filozofická a pedagogická antropologie. Praha: Karolinum, 2000. ISBN: 80-246-0076-5 Complementary literature and literature that is not in AK UK will be presented at the beginning and during the semester. Teachers' presentations and non-AK UK literature are available at MS Teams. | | | | | |
| Languages necessary to complete the course: Languages necessary to complete the course: Slovak | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 87 | | | | | |
| A | B | C | D | E | FX |
| 63,22 | 17,24 | 14,94 | 2,3 | 1,15 | 1,15 |
| Lecturers: Mgr. Štefan Zolcer, PhD. | | | | | |
| Last change: 02.03.2023 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|---|
| Academic year: 2022/2023 | |
| University: Comenius University Bratislava | |
| Faculty: Faculty of Natural Sciences | |
| Course ID: FMFI.KDMFI/2-UFY-235/22 | Course title: Physics Around Us |
| 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: 2 | |
| Recommended semester: 4. | |
| Educational level: II. | |
| Prerequisites: | |
| Antirequisites: FMFI.KDMFI/1-UFY-335/15 | |
| Course requirements: Continuous assessment: Active participation and communication of students in solving assigned tasks and discussion is expected. During the semester, each student will present a separate paper on the topic chosen by him. In addition, he prepares his own photo or video of a physical phenomenon from everyday life. Outputs are evaluated. The correctness of physics and the didactic quality of the output is evaluated. Indicative evaluation scale, the following mark must be achieved at least: A 90%, B 80%, C 70%, D 60%, E 50%. Credits will not be awarded if the student scores less than 50%. | |
| Learning outcomes: Graduates will have developed skills to apply the knowledge gained in physics, didactics and pedagogy to formulate and solve physical problems from home, leisure activities and similar areas of everyday life. | |
| Class syllabus: The seminar is designed as a collection of relatively separate case studies analyzing situations or objects from everyday life, analyzing the physical laws operating in given situations with an emphasis not only on qualitative but especially quantitative characterization of relevant phenomena. The emphasis is on order estimates and calculations. Some typical case studies: Scaling - volume and content ratios, physics around a washing machine, physics of energy transport, vehicle cornering, music and physics, computational physics, planets and stars. | |
| Recommended literature: | |
| Languages necessary to complete the course: Slovak and English. | |
| Notes: | |

| | | | | | |
|---|-----|-----|-----|-----|-----|
| Past grade distribution | | | | | |
| Total number of evaluated students: 0 | | | | | |
| A | B | C | D | E | FX |
| 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: PaedDr. Peter Horváth, PhD. | | | | | |
| Last change: 18.06.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-------|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFI.KDMFI/2-UFY-238/22 | | Course title: Physics Aspects of Living Systems | | | |
| Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning | | | | | |
| Number of credits: 2 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: Students will write a written semester work during the semester. Project of the work (10 marks), preliminary work (20 marks), final version (20 marks), defence (20 marks), peer-assessment of the work of colleagues (30 marks). A = (90, 100]%, B = (80, 90]%, C = (70, 80]%, D: (60, 70]%, E: (50, 60]%) Credits will not be awarded if a student scores less than 50%. | | | | | |
| Learning outcomes: After completing the course, the student will be able to use physics knowledge in the context of living systems. Will understand the selected physics properties of cells, biological tissues, organs and organisms. | | | | | |
| Class syllabus: Physics properties of the cell membrane and transport processes. Physics basis of sensory perception, receptors. Physical principles of respiration. Physical principles applied in blood circulation. Electrical properties of tissues and organs. Own and mediated physical signals of tissues and organs, their recording. Interaction of ionizing radiation with matter. Imaging methods. | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovak and English. | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 18 | | | | | |
| A | B | C | D | E | FX |
| 38,89 | 38,89 | 22,22 | 0,0 | 0,0 | 0,0 |
| Lecturers: doc. PaedDr. Viera Haverlíková, PhD. | | | | | |
| Last change: 18.06.2022 | | | | | |

Approved by:

COURSE DESCRIPTION

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|--|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-115/22 | | Course title: Prevention of Drug Addiction | | | |
| 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: 2 | | | | | |
| Recommended semester: 1., 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 60 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: RNDr. Soňa Nagyová, PhD. | | | | | |
| Last change: 20.06.2023 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|------|---|-------|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-116/22 | | Course title: Rhetoric for Teachers | | | |
| 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: 2 | | | | | |
| Recommended semester: 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 35 | | | | | |
| A | B | C | D | E | FX |
| 40,0 | 20,0 | 25,71 | 14,29 | 0,0 | 0,0 |
| Lecturers: Mgr. Štefan Zolcer, PhD. | | | | | |
| Last change: 14.09.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-------|--|-------|-------|-------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KAgCh/N-mUCH-111/22 | | Course title: School Chemical Calculations | | | |
| 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: 2 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 6 | | | | | |
| A | B | C | D | E | FX |
| 16,67 | 16,67 | 16,67 | 16,67 | 16,67 | 16,67 |
| Lecturers: doc. RNDr. Jozef Tatiersky, PhD. | | | | | |
| Last change: 04.10.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-------|--|-------|------|-------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KAgCh/N-mUCH-112/22 | | Course title: Selected Chapters from Inorganic Chemistry | | | |
| Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning | | | | | |
| Number of credits: 4 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 30 | | | | | |
| A | B | C | D | E | FX |
| 10,0 | 13,33 | 33,33 | 23,33 | 6,67 | 13,33 |
| Lecturers: doc. RNDr. Jozef Tatiersky, PhD., RNDr. Jana Chrappová, PhD. | | | | | |
| Last change: 14.09.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-----|---|-------|-------|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KBCh/N-mUCH-001/22 | | Course title: Selected Chapters in Biochemistry | | | |
| Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning | | | | | |
| Number of credits: 4 | | | | | |
| Recommended semester: 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 23 | | | | | |
| A | B | C | D | E | FX |
| 13,04 | 8,7 | 17,39 | 43,48 | 17,39 | 0,0 |
| Lecturers: doc. RNDr. Jana Korduláková, PhD. | | | | | |
| Last change: 27.07.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-------|--|------|-------|-------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KOrCh/N-mUCH-100/22 | | Course title: Selected Topics in Organic Chemistry | | | |
| Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning | | | | | |
| Number of credits: 4 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 28 | | | | | |
| A | B | C | D | E | FX |
| 17,86 | 17,86 | 17,86 | 25,0 | 10,71 | 10,71 |
| Lecturers: doc. Ing. Mária Mečiarová, PhD., Mgr. Henrieta Stankovičová, PhD. | | | | | |
| Last change: 14.06.2023 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-------|---|-------|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KFTCh/N-mUCH-056/22 | | Course title: Selected Topics in Physical Chemistry | | | |
| Educational activities: Type of activities: lecture / seminar Number of hours: per week: 1 / 1 per level/semester: 14 / 14 Form of the course: on-site learning | | | | | |
| Number of credits: 2 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 13 | | | | | |
| A | B | C | D | E | FX |
| 15,38 | 15,38 | 53,85 | 15,38 | 0,0 | 0,0 |
| Lecturers: doc. Mgr. Michal Pitoňák, PhD., prof. RNDr. Vladimír Kellö, DrSc. | | | | | |
| Last change: 31.07.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-------|---|------|-------|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFL.KTF/2-UFY-102/22 | | Course title: Selected chapters from Modern Physics | | | |
| Educational activities: Type of activities: practicals / lecture Number of hours: per week: 1 / 2 per level/semester: 14 / 28 Form of the course: on-site learning | | | | | |
| Number of credits: 3 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: During the semester, there will be two written examinations, from which the student can obtain max. 2x 20 marks. In the middle of the semester, the student submits a plan of semester work - max. 10 marks. At the end of the semester, the student submits a semester work - max. 20 marks. In the exam period, there will be a structured discussion, where the student can get max. 30 marks. Credits will not be awarded if the student scores less than 50% of the marks. | | | | | |
| Learning outcomes: The graduate will have advanced knowledge in selected areas of modern physics with a focus on higher secondary and high school physics teachers. | | | | | |
| Class syllabus: Statistical physics, Thermodynamics, Perspectives of theoretical physics on light, electricity, electromagnetism, nuclear physics, quantum mechanics, particle physics and cosmology. | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovak and English. | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 57 | | | | | |
| A | B | C | D | E | FX |
| 50,88 | 24,56 | 12,28 | 1,75 | 10,53 | 0,0 |
| Lecturers: Mgr. Samuel Kováčik, PhD. | | | | | |
| Last change: 18.06.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-------|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-130/22 | | Course title: Specific Learning Disorders in School Practice | | | |
| Educational activities: Type of activities: lecture / seminar Number of hours: per week: 1 / 1 per level/semester: 14 / 14 Form of the course: on-site learning | | | | | |
| Number of credits: 2 | | | | | |
| Recommended semester: 4. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 6 | | | | | |
| A | B | C | D | E | FX |
| 83,33 | 16,67 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: RNDr. Jana Ciceková, PhD. | | | | | |
| Last change: 22.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

| | | | | | |
|--|-----|---|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KAgCh/N-mUCH-110/22 | | Course title: Subject Competitions in Education | | | |
| 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: 2 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 10 | | | | | |
| A | B | C | D | E | FX |
| 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: RNDr. Jana Chrappová, PhD. | | | | | |
| Last change: 14.09.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-------|---|-----|------|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-103/22 | | Course title: Teaching Practice 2 (A) | | | |
| Educational activities: Type of activities: practice Number of hours: per week: per level/semester: 10d Form of the course: on-site learning | | | | | |
| Number of credits: 2 | | | | | |
| Recommended semester: 2. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 69 | | | | | |
| A | B | C | D | E | FX |
| 65,22 | 30,43 | 0,0 | 2,9 | 1,45 | 0,0 |
| Lecturers: doc. RNDr. Štefan Karolčík, PhD., prof. RNDr. Miroslav Prokša, CSc., doc. RNDr. PaedDr. Zuzana Haláková, PhD., doc. PaedDr. Elena Čipková, PhD., PhDr. Michael Fuchs, RNDr. Peter Likavský, CSc., RNDr. Henrieta Mázorová, PhD., doc. RNDr. Katarína Pavličková, CSc., RNDr. Hubert Žarnovičan, PhD., PaedDr. Anna Drozdíková, PhD., Mgr. Lenka Šikulíncová, PhD. | | | | | |
| Last change: 22.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-----|-------|---|------|------|-----|
| Academic year: 2022/2023 | | | | | | |
| University: Comenius University Bratislava | | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | | |
| Course ID: PriF.KDPP/N-mUXX-104/22 | | | Course title: Teaching Practice 2 (B) | | | |
| Educational activities: Type of activities: practice Number of hours: per week: per level/semester: 10d Form of the course: on-site learning | | | | | | |
| Number of credits: 2 | | | | | | |
| Recommended semester: 2. | | | | | | |
| Educational level: II. | | | | | | |
| Prerequisites: | | | | | | |
| Course requirements: | | | | | | |
| Learning outcomes: | | | | | | |
| Class syllabus: | | | | | | |
| Recommended literature: | | | | | | |
| Languages necessary to complete the course: | | | | | | |
| Notes: | | | | | | |
| Past grade distribution Total number of evaluated students: 81 | | | | | | |
| A | ABS | B | C | D | E | FX |
| 59,26 | 0,0 | 29,63 | 8,64 | 1,23 | 1,23 | 0,0 |
| Lecturers: doc. RNDr. Štefan Karolčík, PhD., prof. RNDr. Miroslav Prokša, CSc., doc. RNDr. PaedDr. Zuzana Haláková, PhD., doc. PaedDr. Elena Čipková, PhD., PhDr. Michael Fuchs, RNDr. Peter Likavský, CSc., RNDr. Henrieta Mázorová, PhD., doc. RNDr. Katarína Pavličková, CSc., RNDr. Hubert Žarnovičan, PhD., PaedDr. Anna Drozdíková, PhD., Mgr. Lenka Šikulíncová, PhD., M. A. Linda Steyne, PhD., Mgr. Monika Šajánková, PhD. | | | | | | |
| Last change: 22.08.2022 | | | | | | |
| Approved by: | | | | | | |

COURSE DESCRIPTION

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|--|-------|---|------|------|------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-113/22 | | Course title: Teaching Practice 3 (A) | | | |
| Educational activities: Type of activities: practice Number of hours: per week: per level/semester: 15d Form of the course: on-site learning | | | | | |
| Number of credits: 3 | | | | | |
| Recommended semester: 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 84 | | | | | |
| A | B | C | D | E | FX |
| 66,67 | 17,86 | 7,14 | 2,38 | 4,76 | 1,19 |
| Lecturers: doc. PaedDr. Elena Čipková, PhD., doc. RNDr. Štefan Karolčík, PhD., RNDr. Peter Likavský, CSc., RNDr. Henrieta Mázorová, PhD., prof. RNDr. Miroslav Prokša, CSc., PaedDr. Anna Drozdíková, PhD., RNDr. Hubert Žarnovičan, PhD., PhDr. Michael Fuchs, Mgr. Lenka Šikulíncová, PhD., Mgr. Michaela Vargová, PhD. | | | | | |
| Last change: 14.09.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-----|-------|---|------|------|-----|
| Academic year: 2022/2023 | | | | | | |
| University: Comenius University Bratislava | | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | | |
| Course ID: PriF.KDPP/N-mUXX-114/22 | | | Course title: Teaching Practice 3 (B) | | | |
| Educational activities: Type of activities: practice Number of hours: per week: per level/semester: 15d Form of the course: on-site learning | | | | | | |
| Number of credits: 3 | | | | | | |
| Recommended semester: 3. | | | | | | |
| Educational level: II. | | | | | | |
| Prerequisites: | | | | | | |
| Course requirements: | | | | | | |
| Learning outcomes: | | | | | | |
| Class syllabus: | | | | | | |
| Recommended literature: | | | | | | |
| Languages necessary to complete the course: | | | | | | |
| Notes: | | | | | | |
| Past grade distribution Total number of evaluated students: 110 | | | | | | |
| A | ABS | B | C | D | E | FX |
| 61,82 | 0,0 | 22,73 | 10,0 | 2,73 | 2,73 | 0,0 |
| Lecturers: doc. PaedDr. Elena Čipková, PhD., doc. RNDr. Štefan Karolčík, PhD., RNDr. Peter Likavský, CSc., RNDr. Henrieta Mázorová, PhD., prof. RNDr. Miroslav Prokša, CSc., PaedDr. Anna Drozdíková, PhD., RNDr. Hubert Žarnovičan, PhD., PhDr. Michael Fuchs, Mgr. Lenka Šikulíncová, PhD., M. A. Linda Steyne, PhD., Mgr. Monika Šajánková, PhD., Mgr. Michaela Vargová, PhD. | | | | | | |
| Last change: 22.08.2022 | | | | | | |
| Approved by: | | | | | | |

COURSE DESCRIPTION

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|--|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUCH-108/22 | | Course title: Technical and Law Aspects of School Chemical Experiments | | | |
| Educational activities: Type of activities: practicals / seminar Number of hours: per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning | | | | | |
| Number of credits: 3 | | | | | |
| Recommended semester: 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 0 | | | | | |
| A | B | C | D | E | FX |
| 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: PaedDr. Anna Drozdíková, PhD. | | | | | |
| Last change: 22.08.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|--|-----|---|-----|-----|-------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: PriF.KDPP/N-mUXX-107/22 | | Course title: The Art of Presentation and Communication | | | |
| 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: 2 | | | | | |
| Recommended semester: 1., 3. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 6 | | | | | |
| A | B | C | D | E | FX |
| 83,33 | 0,0 | 0,0 | 0,0 | 0,0 | 16,67 |
| Lecturers: RNDr. Peter Likavský, CSc., doc. RNDr. PaedDr. Zuzana Haláková, PhD., RNDr. Soňa Nagyová, PhD. | | | | | |
| Last change: 11.10.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

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|---|-------|---|------|------|------|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFL.KTF/2-UFY-101/22 | | Course title: Theoretical Physics | | | |
| Educational activities: Type of activities: practicals / lecture Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning | | | | | |
| Number of credits: 4 | | | | | |
| Recommended semester: 1. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: During the semester the students chooses a project and presents it to the group (topic is related to those presented in lectures) – this is 60% of the final grade. The final exam has both a written and an oral part of the exam, together making up 40% of the final grade. | | | | | |
| Learning outcomes: | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovak and English | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 70 | | | | | |
| A | B | C | D | E | FX |
| 57,14 | 17,14 | 8,57 | 10,0 | 5,71 | 1,43 |
| Lecturers: Mgr. Samuel Kováčik, PhD. | | | | | |
| Last change: 18.06.2022 | | | | | |
| Approved by: | | | | | |

COURSE DESCRIPTION

| | | | | | |
|---|-----|--|-----|-----|-----|
| Academic year: 2022/2023 | | | | | |
| University: Comenius University Bratislava | | | | | |
| Faculty: Faculty of Natural Sciences | | | | | |
| Course ID: FMFLKTF/2-UFY-236/22 | | Course title: Theory of Relativity | | | |
| 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: 2 | | | | | |
| Recommended semester: 4. | | | | | |
| Educational level: II. | | | | | |
| Prerequisites: | | | | | |
| Course requirements: Continuous assessment: tests (4x10 marks), teaching-learning sequences (2x10 marks) Exam: written (40 marks) Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%. Credits will not be awarded if a student scores less than 50%. | | | | | |
| Learning outcomes: Graduates will have a basic understanding of the theory of relativity by understanding selected materials for advanced high school physical education and selected popular science articles in the field. | | | | | |
| Class syllabus: | | | | | |
| Recommended literature: | | | | | |
| Languages necessary to complete the course: Slovak and English. | | | | | |
| Notes: | | | | | |
| Past grade distribution Total number of evaluated students: 0 | | | | | |
| A | B | C | D | E | FX |
| 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Lecturers: RNDr. Eduard Masár, PhD. | | | | | |
| Last change: 18.06.2022 | | | | | |
| Approved by: | | | | | |