CONTENS

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ ANC/19	**Name:** Analytical Chemistry
Types, range and methods of educational activities: **Form of study:** Lecture **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 2.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester, the students will be delivered two written tests each of maximum 25 points. To be allowed for the oral part of the examination, the students will have to gather at least 25 points from both tests (i.e. 50% of the total possible count). The maximum number of points obtainable at the oral part of the exam is 50. The final classification is obtained from the sum of both parts of the examination – written and oral. For the final classification to be A one has to obtain 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.	
Results of education: Upon completing the Course the students acquire theoretical knowledge about the basics qualitative and quantitative analysis and is able to apply selected analytical methods for the analysis of inorganic and organic substances.	
Brief syllabus: 1. Introduction – the concept of analytical reactions, electrolytic dissociation, water as solvent. 2. Chemical equilibrium – the concept of equilibrium, equilibrium constants, strong and weak electrolytes, relation between thermodynamics and equilibrium constants. 3. Acidobasic reactions – theory of acids and bases, calculating the pH of strong and weak acids, bases and salts, buffers. 4. Precipitation reactions – calculating the solubility of moderately soluble substances, decrease of solubility by own ions, effect of foreign ions on the solubility. 5. Redox reactions – equilibrium of redox reactions, determination of equilibrium constants, factors controlling the redox equilibria. 6. Complex reactions as analytical reactions, catalytical induces reactions. 7. Reactions of organic reagents. 8. The process of chemical analysis group reactions of cations and anions, selective reactions of cations and anions. 9. Qualitative analysis of organic substances – qualitative elemental analysis (C, H, N, S, halogens and metals). 10. Qualitative analysis of organic substances – proof of functional groups. 11. Overview of selected spectral methods.	

12. Chemometrical evaluation of analytical results and calibration functions. Interpretation and presentation of results.
13. Conclusion.

Literature:

Karlíček R., a kol. (2009): Analytická chemie pro farmaceuty. Karolinum, ISBN 97 8802 46 1453 3
Majer J., (1989) : Analytická chémia. - 1. vyd. - Martin : Osveta n.p., - 368 s.
Holzbecher Z., Churáček J., (1987) : Analytická chemia. - 1. vyd. – Praha, SNTL - Nakladatelství technické literatury, - 663 s.
Barcza L., (2006): A mennyiségi kémiai analízis gyakorlati kézikönyve. Medicina Kiadó, ISBN: 963 2429 61 3
Barcza L., (2007): Kvantitatív analitikai kémia. Budapest, Semmelweis Kiadó, ISBN 978 963 9656 73 4
Barcza L., Buvári Á., (2009): A minőségi kémiai analízis. Medicina Könyvkiadó, ISBN 978 9 6 322 6186 7

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 40

A	B	C	D	E	FX
15.0	22.5	22.5	10.0	20.0	10.0

Teacher: doc. Ing. Ondrej Hegedűs, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ ARC/15	**Name:** Inorganic Chemistry
Types, range and methods of educational activities: **Form of study:** Lecture **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 2.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester, the students will be delivered two written tests each of maximum 25 points. To be allowed for the oral part of the examination, the students will have to gather at least 25 points from both tests (i.e. 50% of the total possible count). The maximum number of points obtainable at the oral part of the exam is 50. The final classification is obtained from the sum of both parts of the examination – written and oral. For the final classification to be A one has to obtain 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.	
Results of education: The students master the basic laws and principles in Inorganic Chemistry and are able to apply the systematic knowledge about non-metallic and metallic elements including their compounds.	
Brief syllabus: Periodic system of elements and the electron structure of their valence shells, Chemistry of non-trasitional, transitional and internally transitional elements. Coordinational compounds. 1. The periodic system of elements and the electron structure of their valence shells. 2. Compounds in general, lattice and bond types, characteristics and categories of compounds – hydrides, halogenides, oxides, peroxides, superoxides, oxoacids, sulphides, nitrides, phosphides, carbides, silicides, borides, cyanides, cyanates. 3. Hydrogen, bond types, occurence, preparation, its compounds and isotopes. 4. General properties of metals (including transition metals). 5. Coordination compounds. 6. Alcali metals – elements of group I of the periodic system, bond types, compounds, the subgroup of copper. 7. Alcaline earth metals – elements of group II of the periodic system, bond types, compounds, the subgroup of zinc. 8. Hybridization. 9. Elements of group III of the periodic system, bond types, compounds, the subgroup of scandium, hybridization types. 10. Elements of group IV of the periodic system, bond types, compounds, the subgroup of titanium. 11. Elements of group V of the periodic system, bond types, compounds, the subgroup of vanadium.	

12. Elements of group VI of the periodic system, bond types, compounds, the subgroup of chromium.
13. Elements of group VII of the periodic system, bond types, compounds, the subgroup of manganese.
14. Elements of group VIII of the periodic system and their compounds.

Literature:

Greenwood N. N., Earnshaw A., (1993): Chemie prvků I a II. ISBN 80-85427-38-9
Krätsmár - Šmogrovič J. a kol., (2007): Všeobecná a anorganická chémia. Osveta, ISBN 80 806 3245 8
Fajnor V., (1998) : Všeobecná a anorganická chémia. - 1. vyd. – Bratislava, Univerzita Komenského - 266 s. - ISBN 80-223-1257-6
Gažo J., Kohout J., Serátor M., (1981) : Všeobecná a anorganická chémia. Bratislava, ALFA - 804 s.
Lukeš I., (2009): Systematická anorganická chémie. - 1. vyd. – Praha, Nakladateľství Karolinum - 230 s. ISBN 978-80-246-1614-8
Zikmund M.,(1995): Anorganická chémia. Bratislava : Univerzita Komenského, ISBN 80-223-0919-2
Bánhidi L., (1989): Szervetlen kémia. Budapest, Tankönyvkiadó, ISBN 96 318 2192 7
Fehér D., (1987): Szervetlen kémia. Budapest, Tankönyvkiadó, ISBN 96 318 0282 5

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 47

A	B	C	D	E	FX
36.17	17.02	12.77	17.02	10.64	6.38

Teacher: doc. RNDr. Róbert Gyepes, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ BC1/15	**Name:** Biochemistry I.
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar **Recommended extent of course (in hours):** **Per week:** 1 / 1 **For the study period:** 13 / 13 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester 2 writing tests are compulsory: the maximum points are 2 x 25 = 50. The minimum eligibility requirement for the oral exam is overall 25 points from the two writing tests. The maximum points at the oral exam are 50. The final evaluation comprises both the writing test and oral exam (maximum points 50 + 50 = 100). Grading system: grade A (90–100%), grade B (80–89%), grade C (70–79%), grade D (60–69%), grade E (50–59%), and grade F (49% and below).	
Results of education: During the pedagogical education the students will study the basic biochemical processes of the living systems	
Brief syllabus: 1. Alcohols and oxo compounds (aldehydes, ketones). Physical and chemical properties, structure, synthesis, and reactions. 2. Carboxylic and nucleic acids and heterocyclic compounds. Synthesis and structure determination. 3. Amino acids: properties, structure, and optical activity. The isoelectric point. Characterization of the proteinogenic amino acids. Essential amino acids. 4. Peptides. Formation and structure of the peptide bond. Biologically important peptides. 5. Proteins. Structure and characterization of proteins. Biological roles of proteins. 6. Enzymes. Structure of the enzymes; the active center. Biological roles of enzymes. 7. The mechanism of the enzyme action. The Michaelis–Menten equation. The Michaelis-constant. Characterization of the inhibitors. 8. Coenzymes. 9. Lipids. Hydrolysable and non-hydrolysable lipids. Structure and biological roles. 10. Chemical composition of the cell membrane. Types of membrane-transport processes. 11. Writing test	
Literature: Ferenčík, M. a kol. Biochémia. Bratislava : Slovak Acadenic Press, 2000. Karlubík, M.: Biochémia. Nitra: VŠP, 1990. Kiss T., Bevezetés a bioszervetlen kémiába. Nemzeti Tankönyvkiadó Zrt. ISBN: 978 963 195 999 4	

Lásztity, Radomír: Biokémia. Nemzeti Tankönyvkiadó, 1995. ISBN 9631865657
Škárka, B.: Biochémia. Alfa Bratislava, 1987
Vodrážka, Z. a kol.: Biochemie, Akademia, 2007. ISBN 8020006001

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 12

A	B	C	D	E	FX
41.67	41.67	0.0	0.0	16.67	0.0

Teacher: Gábor Dibó, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ BC2/15	**Name:** Biochemistry II.
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar **Recommended extent of course (in hours):** **Per week:** 1 / 1 **For the study period:** 13 / 13 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 6.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester 2 writing tests are compulsory: the maximum points are 2 x 25 = 50. The minimum eligibility requirement for the oral exam is overall 25 points from the two writing tests. The maximum points at the oral exam are 50. The final evaluation comprises both the writing test and oral exam (maximum points 50 + 50 = 100). Grading system: grade A (90–100%), grade B (80–89%), grade C (70–79%), grade D (60–69%), grade E (50–59%), and grade F (49% and below).	
Results of education: By studying this subject, the students will study the basic biochemical processes of the living systems. Student will get a basic overview on those chemical processes which take place in living organisms. He/she will be able to recognise the interdisciplinary relationship between chemistry and biology.	
Brief syllabus: 1. Categories and biological roles of the carbohydrates. Monosaccharides. Constitution and configuration. The optical activity. The Fischer projection, the Tollens lactol formation, and the Haworth formula. Oxidation and reduction of monosaccharides. Oligo- and polysaccharides. 2. The nucleic acids. Nucleosides and nucleotides. Categories of the nucleic acidsThe primary and secondary structures of the nucleotides. The DNA double helix. 3. The biochemical processes in the living systems. The characterization and importance of the redox reactions. Bioenergetics. The citric acid cycle. 4. The oxidative phosphorylation. 5. Written test 6. Metabolism of the saccharides. Anabolism of the saccharides: photosynthesis, steps of the photosynthesis. 7. Catabolism of the saccharides: glycolysis under aerobic and anaerobic conditions. 8. Metabolism and hydrolysis of the lipids. Degradation of the fatty acids. Biosynthesis of the fatty acids and the lipids. 9. The natural nitrogen cycle. Metabolism of the proteins —anabolism and catabolism. The urea (ornithine) cycle. 10. The regulation mechanisams in the living systems.	

11. Written test

Literature:

Ferenčík, M. a kol. Biochémia. Bratislava : Slovak Acadenic Press, 2000.
Karlubík, M.: Biochémia. Nitra: VŠP, 1990.
Kiss T., Bevezetés a bioszervetlenkémiába. NemzetiTankönyvkiadóZrt. ISBN: 978 963 195 999 4
Lásztity, Radomír: Biokémia. NemzetiTankönyvkiadó, 1995. ISBN 9631865657
Škárka, B.: Biochémia. Alfa Bratislava, 1987
Vodrážka, Z. a kol.: Biochemie, Akademia, 2007. ISBN 8020006001

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 11

A	B	C	D	E	FX
54.55	9.09	9.09	27.27	0.0	0.0

Teacher: Mgr. Alexandra Hengerics Szabó, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ CHV/15	**Name:** Calculations in Chemistry
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 2.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester the students will be issued a test of maximum 50 points, while another amount of 50 points can be acquired for his/her homework. For a successful completion of the course one has to gather at least 50 point, i.e. 50% of the total points possible. For the final classification to be A one has to acquire 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.	
Results of education: Completing the Course the students acquire skills in selected chemical calculations and get acquainted with the mathematical apparatus needed in chemical calculations, which can be later applied in their further pedagogical career upon tackling common laboratory operations.	
Brief syllabus: 1. Calculations based on chemical equations. 2. Calculation of pureness and yield of chemical reactions. 3. Gas laws. Ideal gases. 4. Chemical reactions and redox processes. Balancing redox reactions. 5. Electrochemistry – Faraday's laws, chemical equilibrium of redox systems. 6. Thermochemistry – enthalpy of formation, reaction enthalpy, thermochemical laws. 7. Equilibrium in electrolytes – dissociation of acids and bases. 8. Equilibrium in electrolytes – water dissociation and the hydrogen exponent. 9. Buffers. 10. Hydrolysis of salts. 11. Written test. Conclusion.	
Literature: Krätsmár-Šmogrovič, J. a kol., (2007): Všeobecná a anorganická chémia. Osveta, ISBN 80 806 3245 8 Fajnor V.,(1992) Laboratórna technika, názvoslovie a chemické výpočty. Vysokoškolské skriptá, UK Bratislava, ISBN 80 223 0436 0 Sokolík J., (2012) Názvoslovie a príprava vybraných anorganických látok, UK Bratislava, ISBN 978 80 223 2913 2	

Kotočová A, Valigura D.(1993): Všeobecná chémia- Návody na laboratórne cvičenia. Bratislava: STU, ISBN 80 227 0560 8
Csányi C., (2002): Kémiai példatár és tesztgyűjtemény megoldásokkal. Budapest, ISBN 96 31 6211 2 X
Kiss Zs., (2004): Összefoglaló feladatgyűjtemény kémiából - Megoldások. Budapest, Nemzeti Tankönyvkiadó, ISBN 963 19 5394 7
Mayer J., (2002): Módszertani stratégiák 4. Országos Közoktatási Intézet, ISBN 9636825033

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 43

A	B	C	D	E	FX
23.26	20.93	20.93	11.63	16.28	6.98

Teacher: Mgr. Katarína Szarka, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ DCH/15	**Name:** History of Chemistry
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 4.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester 1 writing test is compulsory: the maximum points are 50. Moreover, another 50 points are available from the (maximum points 50 + 50 = 100). Grading system: grade A (90–100%), grade B (80–89%), grade C (70–79%), grade D (60–69%), grade E (50–59%), and grade F (49% and below).	
Results of education: During their studies, students will be acquainted, in chronological order, with the development of chemical science during our history. They will be able to apply this knowledge in practice during their chemical class in the future.	
Brief syllabus: 1. Introductory 2. Born of chemistry as a science 3. Chemistry in the age of the ancient Greek and Roman Empire 4. The age of alchemy 5. Chemistry, as a branch of science 6. Development of the chemical science in the l7th century. The flogiston theory. 7. Birth of the modern chemistry 8. Development of the chemistry in the 19th cetuary 9. Birth and development of chemical industry 10. Discovery of radioactivity. Its importance and impact on the development of chemistry in the 20th century. 11. Famous chemists and their discoveries 12. Nobel Laurates in chemistry 13. Writing test	
Literature: Linkešová,M., (2010): Kapitoly z histórie chémie 2. prepracované vydanie. – Trnava, Pedagogická fakulta Trnavskej univerzity v Trnave, 145s. - ISBN 978-80-8082-399-3, dostupné online: http://katchem.truni.sk/prilohy/Kapitoly%20z%20historie%20chemie.pdf	

Cídlová,H. et al , (2011) : Historie chemie. Studijní materiál je určen pro studenty volitelného předmětu Historie chemie. Je součástí řešení projektu FR VŠ 464/2011. dostupné online: http://www.ped.muni.cz/wchem/sm/hc/hist/default.htm
Balázs, L., (1996): A kémia története I-II. Budapest, Nemzeti Tankönyvkiadó,1075s., - ISBN 963-18-7344-7.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 32

A	B	C	D	E	FX
84.38	6.25	6.25	0.0	0.0	3.13

Teacher: Dr. habil. PaedDr. György Juhász, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ ENC/15	**Name:** Environmental Chemistry

Types, range and methods of educational activities:
Form of study: Seminar
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester the students will be issued a test of maximum 50 points, while another amount of 50 points can be acquired for his/her homework. For a successful completion of the course one has to gather at least 50 point, i.e. 50% of the total points possible. For the final classification to be A one has to acquire 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.

Results of education:
With succesful fullfilment the students will known the basic phrases from the area of ecology and protection of environment. Besides they acquire theoretical bases, and able to understand the relationship between chemistry and environment, they will be able to solve practical problems within the theme.

Brief syllabus:
1. Introduction – biosphere, man and his environment
2. Each basic school and secondary school subjects, especially the role of chemistry in student's enviromental education
3. Atmosphere and the air pollution
4. Water and the water pollution
5. The soil and soil protection
6. The wastewater treatment, reducing of the aerospace pollution
7. Radioecology – nuclear power stations and the environment.
8. Waste – waste management, recycling.
9. Environmental monitoring.
10. Environmental chemistry experiments – water.
11. Environmental chemistry experiments – air.
12. Environmental chemistry experiments – soil.
13. The current state of enviromental education and its' perspectives. The concept of natural environment and the characterization of the actual state of environment in Slovakia. The pollution of aerospace, water and soil. Radioactivity and the protection of environment – Application of the acquired knowledge in education of chemistry in elementary school and secondary school.

Literature:

With succesful fullfilment the students will known the basic phrases from the area of ecology and protection of environment. Besides they acquire theoretical bases, and able to understand the relationship between chemistry and environment, they will be able to solve practical problems within the theme.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 32

A	B	C	D	E	FX
50.0	28.13	18.75	3.13	0.0	0.0

Teacher: Mgr. Andrea Vargová, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ FC1/15	**Name:** Physical Chemistry I.
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar **Recommended extent of course (in hours):** **Per week:** 2 / 1 **For the study period:** 26 / 13 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 4.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester there will be two written assessments for 25-25 points, in order to access the oral test, students have to achieve at least 25 points from the two assessments together, i.e. 50% of the total. For the oral examination the student can get 50 points. The final evaluation result depends on the oral exam and on the written assessments (50%-50%). To achieve evaluation A 90-100% is needed, for evaluation B 80-89% is needed, for evaluation C 70-79% is needed, for evaluation D 60-69% is needed, and for evaluation E 50-59% is needed from the total number of points.	
Results of education: By completing this course, students acquire basic knowledge about the structure and description of the Solids, Liquids, and Gases. Based on the laws of thermodynamics, students describe and explain the phenomena accompanying the physico-chemical and chemical processes. They will be able to explain laws, and they acquire the necessary skills to characterize and analyze the characteristics of mixtures. Students will be able to apply the acquired theoretical knowledge on the practical lessons of physical chemistry.	
Brief syllabus: 1. Equations of State and the Ideal Gas Law, State Functions and Path Functions Kinetic Theory of Gase 2. Physical Meaning of the Boltzmann Distribution Law, Boltzmann and Maxwell Distribution, Real Gases. 3. The Law of Corresponding States , Liquids, Surface Tension and Viscosity, Solids 4. Thermodynamics, Heat, Work, Internal Energy, Expansion and Compression of an Ideal Gas 5. First Law of Thermodynamics, Enthalpy, Heat Capacity, Adiabatic Changes 6. Thermochemistry 7. Written assessment. 8. II. Law of Thermodynamics, Entropy, Carnot cycle. 9. The Gibbs Energy and the Helmholtz Energy, Fugacity and the Equilibrium Constant for Real Gases. 10. Ideal and Real Solutions, The Chemical Potential, The Gibbs and Duhem Equation 11. Phases Equilibrium, Gibbs' Phase Rule, The Clapeyron Equation	

12. Raoult´s and Henry´s Law, Phase Diagrams
13. Colligative Properties, Phase Diagrams of Condensed Systems.
14. Written assessment.

Literature:

Atkins, P.W.: Fizikai kémia I-III. a tankönyvi feladatok megoldására. Tankönyvkiadó, 1991. ISBN 9631843505
Atkins, P. W.: Fizikai kémia I. Egyensúly. Budapest: Nemzeti Tankönyvkiadó, 2002. ISBN: 9631933148
Atkins, P. W.: Fizikai kémia II. Szerkezet. Budapest: Nemzeti Tankönyvkiadó, 2002. ISBN: 963192145X
Biskupič S., Kellö V., Staško A., Vavra J., (1991) : Fyzikálna chémia I. - 1. vyd. - Bratislava ALFA - 296 s. - ISBN 80-05-00931-3
Brdička R., (1977): Základy fysikální chemie. Praha, ACADEMIA
Čipera J., (1990): Fyzikálna chémia. Bratislava: Osveta, ISBN 80 217 0134 x
Ulický L., Vavra J., (1992) : Návody do cvičenia z fyzikálnej chémie. - 1. vyd. – Bratislava, SVŠT v Bratislave - 216 s.
Ulický L., a kol., (1972) : Štruktúra tuhej fázy. - 1. vyd. – Bratislava, SVŠT v Bratislave- 130 s.
Ulický L., Fyzikálna chémia I., FPV UCM, 1999

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 33

A	B	C	D	E	FX
6.06	30.3	24.24	21.21	18.18	0.0

Teacher: prof. Róbert Mészáros, DSc.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ FC2/15	**Name:** Physical Chemistry II.
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar **Recommended extent of course (in hours):** **Per week:** 2 / 1 **For the study period:** 26 / 13 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester there will be two written assessments for 25-25 points, in order to access the oral test, students have to achieve at least 25 points from the two assessments together, i.e. 50% of the total. For the oral examination the student can get 50 points. The final evaluation result depends on the oral exam and on the written assessments (50%-50%). To achieve evaluation A 90-100% is needed, for evaluation B 80-89% is needed, for evaluation C 70-79% is needed, for evaluation D 60-69% is needed, and for evaluation E 50-59% is needed from the total number of points.	
Results of education: By completing this course, students acquire basic knowledge about the chemical balance in the chemical and electrochemical systems. They can control the conduction of electricity in electrolyte solutions, they are able to explain. In addition to the above mentioned things, students are able to understand the reaction rates of simple and complex chemical reactions, and the basic principles of colloid chemistry.	
Brief syllabus: 1. Chemical Equilibrium, The Equilibrium Constant for a Mixture of Ideal Gases, The Variation of KP with Temperature and pressure, Le Chatelier´s Rule. 2. Electrolyte Solutions, Thermodynamics of Ion Formation and Solvation 3. Chemical Equilibrium in Electrolyte Solutions, Ostwald's Rule 4. Hydrolysis of salts, Buffer solutions 5. Conduct Electricity in electrolytic solutions, Faraday's Law, Conductivity, 6. Written assessment 7. Electrochemical Cells, Batteries, The, Electrodes and Electrode potential 8. Chemical Kinetics, Rate Laws, Reaction rates 9. Zero - First-, Second-, Third- Order Reactions 10. Determination of Reaction Order, Reaction Mechanisms 11. Temperature Dependence of Rate Constants, Activated Complex Theory, The Collision Theory of Reaction rates. 12. Catalysis, Photochemistry, Diffusion, 13. Colloids, Solutions, and Mixtures, Adsorption	

14. Written assessment.

Literature:

Ulický L., a kol.(1999): Fyzikálna chémia I., FPV UCM
Atkins P.W., (1991) : Fizikai kémia I-III. a tankönyvi feladatok megoldására. Tankönyvkiadó, ISBN 96 318 4350 5
Atkins P. W., (2002): Fizikai kémia I. Egyensúly. Budapest: Nemzeti Tankönyvkiadó, ISBN: 96 319 3314 8
Atkins P. W.,(2002): Fizikai kémia II. Szerkezet. Budapest: Nemzeti Tankönyvkiadó, ISBN: 96 319 2145 X
Atkins P.W.,(1999): Fyzikálna chémia, STU Bratislava, 6. vyd. ISBN 80 227 1238 8
Biskupič S., Kellö V., Staško A., Vavra J., (1991) : Fyzikálna chémia I. - 1. vyd. - Bratislava ALFA - 296 s. - ISBN 80-05-00931-3
Brdička R., (1977): Základy fysikální chemie. Praha, ACADEMIA
Čipera J., (1990): Fyzikálna chémia. Bratislava: Osveta, ISBN 80 217 0134 x
Ulický L., a kol. (1972) : Štruktúra tuhej fázy. - 1. vyd. – Bratislava, SVŠT v Bratislave- 130 s.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 30

A	B	C	D	E	FX
10.0	16.67	33.33	26.67	13.33	0.0

Teacher: prof. Róbert Mészáros, DSc.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ FPC/19	**Name:** Physics for Chemists
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 3.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester two written clearance by 25 points will be held and at the end of the semester an oral exam will be held, where the student can get 50 points, while condition of access to oral test will achieve the two checks totaling at least 25 points To obtain grade A it is necessary to get altogether at least 90 points, for grade B at least 80 points, for grade C to get at least70 points, for grade D to get at least 60 points and for grade E at least 50 points.	
Results of education: By completing the course students acquire basic knowledge of physics in mechanics, thermodynamics, electromagnetism and nuclear physics	
Brief syllabus: 1. Introduction. The purpose and content of physics. Relationship of physics to other sciences. Physical quantities. Units of physical quantities. 2. Measurement and measurement errors. 3. Motion. The concept of mass point. Relativity of motion. Track and trajectory. Motion in one-dimensional space. Track and speed of motion. Medium speed. Instant speed. Acceleration. Uniform motion on a straight line. Straightforward uneven movement. Uniformly accelerated motion. Free fall. 4. Horizontal and projectile throw- discharge. Uniform circular motion. Dynamics. 5. Newton's laws of motion. Strength. I. Newton's laws of motion. Newton II. laws of motion. Newton III. laws of motion. The force of gravity, weight, normal force. Applications. The balance of bodies. 6. The second current written proof of knowledges. 7. The friction, circular motion and other applications. Mechanical energy and its conservation. Mass and energy. Power and efficiency. Power. Atmospheric pressure. Archimedes principle. Fluid flow. Surface effects in liquids. 8. Thermodynamics. Heat, temperature, thermodynamic equilibrium. The equation of state. 1st and 2nd law of thermodynamics.Heat engine and its effectiveness. Applications. 9. The transmission of heat, diffusion. Electromagnetism - basic concepts, electric field, potential, voltage, work, energy.	

10. Electrical circuits,electric current, resistor, capacitor. Power.
11. The magnetic field and its basic features.
12. Electromagnetic induction, alternating curren,t transformer.
13. Solar energy, its origin, collectors, converting to electricity and heat.
14. Optics. Maxwell's equations. The interaction of matter with light.
15. Special relativity.
16. The second current written proof of knowledges.

Literature:

Krempaský J., (1992): Fyzika-Základný kurz pre technické univerzity. Bratislava, ALFA, ISBN 80-05-01063-X
Červeňová M.,(1998): Príklady na prijímacie skúšky. STU Bratislava, ISBN 80 227 1029 6
Krempaský J., (1992): Fyzika - Základný kurz pre technické univerzity. Bratislava, Alfa. ISBN 80-05-01063-X.
Paál T.,(2001): Fizika. Budapest, Nemzeti Tankönyvkiadó, ISBN 00 0954 3
Feynman R. P.,(1969) : Mai fizika 1 - A modern természettudomány alapjai - A mechanika törvénye. Budapest, Műszaki könyvkiadó, ISBN 00 0827 9
Feynman R. P., (1970): Mai fizika 4 - Statisztikus mechanika. Termodinamika. Hullámtan. Szimmetriák a fizika törvényeiben. Budapest, Műszaki Könyvkiadó, ISBN 00 0815 4
Székely L., (2010): Albert Einstein válogatott írásai - 3. vyd. - Budapest : Typotex Kiadó, - 444 s. - ISBN 978 963 279 158 6

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 32

A	B	C	D	E	FX
34.38	12.5	6.25	18.75	28.13	0.0

Teacher: Mgr. Ladislav Jaruska, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ KSP/15	**Name:** Selected Chapters from School Chemical Experiments

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 5.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester 1 writing test is compulsory: the maximum points are 50. Moreover, another 50 points are available from the mid-term and final projects
(maximum points 50 + 50 = 100). The minimum requirement for the successful accomplishment of the course is overall 50 points, i.e. 50% of 100 points. Grading system: grade A (90–100%), grade B (80–89%), grade C (70–79%), grade D (60–69%), grade E (50–59%), and grade F (49% and below).

Results of education:
After successfully completing this course, students will be able to perform and explain the demo experiments, moreover will be able to apply them in his/her teacher career in the future.

Brief syllabus:
1. Introduction.
2. Demonstration experiments with flame
3. Preparation of hydrogen gas; its physical and chemical properties
4. Preparation of oxygen gas; its physical and chemical properties
5. Oxides of sulfur — preparation, and study on their properties by using demo experiments
6. Oxides of carbon — preparation, and study on their properties by using demo experiments
7. Demonstration of colorful acid–base reactions
8. Demonstration of factors having influence on the rate of the chemical reactions
9. Teacher’s demo experiments for the qualitative analysis of selected inorganic compounds
10. Teacher’s demo experiments for the qualitative analysis of selected organic compounds
11. Student’s independent demo experiments of their choice
12. Final writing test

Literature:
Balázs, L., (1986): Kémiai kísérletek. Budapest: Móra Ferenc Könyvkiadó, 158s. - ISBN 963 11 5085 2.
Kuracina,R. et al., (2009): Chemické pokusy hravo a zaujímavo. Trnava: AlumniPress, 89s. ISBN 978-80-8096-097-1. Dostupné online: http://www.prirodnejavy.eu/sub/brozura2.pdf
Perczel, S., (1984): Kémiai kísérlet-gyűjtemény. Budapest: Tankönyvkiadó, 173s. - ISBN 9631778223.

Podhorányi, Gy.(1984): Kémiai kísérletgyűjtemény. Budapest: Nemzeti Tankönyvkiadó, 85s.- ISBN 9631873412.
Straka,M.,(1997): Kouzelnické pokusy z chemie. Informační a metodické centrum. 34s. dostupné online: http://vestenie.wbl.sk/Pokusy.pdf

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 12

A	B	C	D	E	FX
50.0	25.0	8.33	8.33	0.0	8.33

Teacher: Mgr. Andrea Vargová, PhD., Mgr. Alexandra Hengerics Szabó, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ KSV/15	**Name:** Selected Chapters from Chemistry Calculuses
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 4.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester, the students will be delivered a test of maximum 50 points, while he/she can gather another 50 points with homeworks assigned during the semester. For the successful termination of the course, one has to gather at least 50 points (i.e. 50% of the maximum count of points). For the final classification to be A one has to obtain 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.	
Results of education: Attending the course the students get acquainted with basic chemistry calculuses needed for primary and secondary education. Students are able to implement their knowledge and process them into the education process. They are able to make worksheet, form problem and tasks in chemistry education. Students are capable to process chemistry exercise and problem, analyze its‘ didactical aspeckts and make assessment tools to them.	
Brief syllabus: 1. Introduction. Physical-chemical quantities, base quantities (ISQ), units. 2. Amount of substance, size of an ensemble of elementary entities, relative atomic and molecular mass, volume, relationships between physical quantities. 3. Solutions, mass-, volume- and mole fraction. 4. Molar concentration, calculuses to make solutions. 5. Chemistry calculuses by reaction rates. 6. Balancing redox a non-redox reactions. 7. Thermochemical calculuses. 8. Creation of writing tests of chemistry calculuses to assess students knowlegde in primary- and secondary education. Tvorba písomných previerok chemických výpočtov. 9. Creation of worksheet to exercise chemistry calculuses in primary- and secondary education. 10. Creation the online exercises and tests for students in primary- and secondary education. 11. Writing test. 12. Sumary course evaluation.	
Literature: Krätsmár-Šmogrovič, J. a kol.(2007): Všeobecná a anorganická chémia. Osveta, ISBN 80 806 3245 8	

Fajnor V., (1998): Všeobecná a anorganická chémia. Vysokoškolské skriptá - 1. vyd. – UK Bratislava, 266 s. - ISBN 80-223-1257-6
Kiss Zs.,(2004): Összefoglaló feladatgyűjtemény kémiából – Megoldások. Budapest, Nemzeti Tankönyvkiadó,. ISBN 963 19 5394 7
Kotočová A., Valigura D.,(1993): Všeobecná chémia- Návody na laboratórne cvičenia. Bratislava: Slovenská technická univerzita, ISBN 80 227 0560 8
Sík J., (1992): Kémiai számítások képletgyűjteménye. Budapest: Műszaki Könyvkiadó, ISBN 963 10 9419 7
Cieľové požiadavky na vedomosti a zručnosti maturantov z chémie – podľa aktuálneho vydania ŠPÚ on-line dostupné na www.statpedu.sk

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 16

A	B	C	D	E	FX
56.25	12.5	6.25	12.5	12.5	0.0

Teacher: Mgr. Katarína Szarka, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ MCL/15	**Name:** Management of School Chemistry Laboratories
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 6.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester, the students will be delivered two written tests each of maximum 25 points. To be allowed for the oral part of the examination, the students will have to gather at least 25 points from both tests (i.e. 50% of the total possible count). The maximum number of points obtainable at the oral part of the exam is 50. The final classification is obtained from the sum of both parts of the examination – written and oral. For the final classification to be A one has to obtain 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.	
Results of education: Students get special basic technical knowledge to build up and furnish school chemistry laboratory. They get acquainted with equipments, devices, materials and chemicals needed to set laboratory going. The students know laboratory safety rules and guidelines and implements them into the chemistry laboratory practise in their pedagogical process.	
Brief syllabus: 1. Laboratory Safety Guidance, giving an assisstence (first aid) in case of laboratory accident, rules of the fire protection during the laboratory work. 2. Laboratory equipments, devices, materials and chemicals. 3. Pressure vessel and maintenance and use. Chemicals and materials – their ordering, storage. 4. Laboratory glass and electrical equipments. 5. Storage of solid and liquid chemicals. Skladovanie tuhých a tekutých chemikálií. List of chemical stock. Chemical storage. Hazardous chemical substancies. The waste storage and liqidation 6. The 1st writing test. 7. Preparation, labeling, storage and manipulation with solution. 8. Operational regulations of the laboratory. 9. Legal aspects of the laboratory working. 10. Building up strategy of the school chemistry laboratory. 11. Internal auditing in laboratory and technical controll the laboratory operation. 12. The 2nd working test.	
Literature:	

Fajnor V., (1992): Laboratórna technika, názvoslovie a chemické výpočty. UK Bratislava, ISBN 80 223 0436 0
Sokolík J., a kol., (2012): Názvoslovie a príprava vybraných anorganických látok. UK Bratislava, ISBN 978 80 223 2913 2
Kotočová A., Valigura D., (1993): Všeobecná chémia- Návody na laboratórne cvičenia. STU Bratislava, ISBN 80 227 0560 8
Karlíček R., a kol., (2009) : Analytická chemie pro farmaceuty, Karolinum, - 279 s., ISBN 978 80 246 1453 3
Čermáková Ľ., Feltl L., Němcová I. (1980) : Analytická chemie 2. - 1. vyd. – Praha, SNTL, Nakladatelství technické literatury,- 272 s.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 10

A	B	C	D	E	FX
70.0	10.0	10.0	10.0	0.0	0.0

Teacher: Mgr. Katarína Szarka, PhD., Mgr. Andrea Vargová, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ MOB/15	**Name:** Molecular Biology

Types, range and methods of educational activities:
Form of study: Seminar
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 6.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester a writing test is compulsory: the maximum points are 50. Further 50 points can be collected from project work. The minimum requirement for the successful accomplishment of the course is overall 50 points, i.e. 50% of 100 points. Grading system: grade A (90–100%), grade B (80–89%), grade C (70–79%), grade D (60–69%), grade E (50–59%), and grade F (49% and below).

Results of education:
By absolving this course, the students will obtain basic knowledge on the mechanism of DNA replication, transcription and translation. He/she will become familiar with the molecular basics of genetics, with the transfer of genetic information and its performance during the personal development.

Brief syllabus:
1. History and progress of molecular biology
2. Nucleic acids.Structure of DNA. The double helix. DNA sequence
3. Physica and chemicalproperties of the DNA
4. Methods of DNA examination
5. Structure of RNA. Characterization of the different forms of RNA. Comparison of the DNA and RNA
6. Writing test
7. DNA replication
8. Translation
9. Transcription. The genetic code
10. Regulation of gene expression
11. DNA recombination. Practical use of the genetic recombination
12. DNA cloning. Methods and use of DNA sequencing
13. The size of the genome, and its organization
14. DNA polymorphism
15. Writing test

Literature:

Gálová Z., et al. (2007) : Molekulárna biológia. - 2. vyd. - Nitra : SPU - 165 s. - ISBN 978-80-8069-951-2
Golais F., (1986) : Molekulárna biológia a genetika vírusov. - Bratislava : UK v Bratislave, - 124. - ISBN 00 1062 7
Hrubý K., (1961) : Genetika. - 1. vyd. - Praha : Československé Akadémie Vied, - 647 s.
Vodrážka Z.(2007) : Biochemie. - 1. vyd. - Praha : Academia, - 190 s. - ISBN 978-80-200-0600-4.
Brechtlová M., Halčák L., (2007) : Lekárska biochémia - Seminárna a praktická časť. - 3. vyd. - Bratislava : Univerzita Komenského v Bratislave,- 168 s. - ISBN 978-80-223-2304-8
Mandl J.,et al. (2006) : Biokémia. - 1. vyd. - Budapest : Semmelweis Kiadó, - 176 s. - ISBN 963 9656 18 6.
Watson J.D., (1988) : Rekombinantní DNA. - 1. vyd. - Praha : Academia, - 294 s.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 13

A	B	C	D	E	FX
30.77	15.38	15.38	30.77	7.69	0.0

Teacher: Mgr. Andrea Vargová, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ MPC/15	**Name:** Mathematics for Chemists

Types, range and methods of educational activities:
Form of study: Lecture / Seminar
Recommended extent of course (in hours):
Per week: 2 / 0 **For the study period:** 26 / 0
Methods of study: present

Number of credits: 4

Recommended semester/trimester of study: 1.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester there will be two written assessments for 25-25 points, in order to access the oral test, students have to achieve at least 25 points from the two assessments together, i.e. 50% of the total. For the oral examination the student can get 50 points. The final evaluation result depends on the oral exam and on the written assessments (50%-50%). To achieve evaluation A 90-100% is needed, for evaluation B 80-89% is needed, for evaluation C 70-79% is needed, for evaluation D 60-69% is needed, and for evaluation E 50-59% is needed from the total number of points

Results of education:
By completing the course, students gain knowledge of linear algebra, mathematical analysis and statistics. Aside from this, they also acquire the skills to work with the mathematical apparatus.

Brief syllabus:
1. Expressions, Transformation of Expressions, polynomes, the complex numbers.
2. Vectors, Vector Spaces And Fields , Matrices, Determinants, Linear systems of equations.
3. Algebraic equations. Groups of molecular symmetries,
4. Real function of one variables – definition and properties, graphs, elementary functions.
5. Limit of a function, continuity for real function.
6. Differentiable Functions of One Variable – Definition of the Derivative, L'Hospital's Rule, Use of Differential Calculus in Chemistry.
7. Integral Calculus of Functions of One Variables - Definition of the Integral, methods of Integral Calculus, Rieman Integral, Newtonov – Leibniz formule, application of the integral Use of Integral in Chemistry.
8. Written assessment.
9. First order Differential Equations – with separable variables, homogenous, linear, equations with constant coefficients, Use of Differential equations in Chemistry.
10. Basic Differential and Integral Calculus of real functions with multiple variables – definitions, properties of functions, partial derivatives, gradient, multiple Integral.
11. Infinite Sequences and Series, Taylor´s Theorem,
12. Statistical analysis of measurements.
13. Graphical analysis of measurements.

14. Written assessment.

Literature:

Neubrunn T., (1992): Matematická analýza I . - 1. vyd. – Bratislava, Univerzita Komenského, 190 s. - ISBN 80-223-0055-1
Neubrunn T., (1992) : Matematická analýza II. - 1. vyd. - Bratislava, Univerzita Komenského, 166 s. - ISBN 80-223-0051-9
Krajňáková D., Míčka J., Machačová Ľ., (1988): Zbierka úloh z matematiky. Bratislava, Alfa, 538 s. - ISBN 0002566
Chajdiak J., (2002): Štatistika v Exceli . 1. vyd. – Bratislava, Statis,. 159 s. - ISBN 80-85659-27-1
Petres T., (2003): Statisztika. Szeged , JATEPress, 272 s. - ISBN 0242073

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 46

A	B	C	D	E	FX
8.7	17.39	13.04	28.26	26.09	6.52

Teacher: Dr. habil. PaedDr. György Juhász, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ OC1/15	**Name:** Organic Chemistry I.
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar **Recommended extent of course (in hours):** **Per week:** 1 / 1 **For the study period:** 13 / 13 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 3.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester 2 writing tests are compulsory: the maximum points are 2 x 25 = 50. The minimum eligibility requirement for the oral exam is overall 25 points from the two writing tests. The maximum points at the oral exam are 50. The final evaluation comprises both the writing test and oral exam (maximum points 50 + 50 = 100). Grading system: grade A (90–100%), grade B (80–89%), grade C (70–79%), grade D (60–69%), grade E (50–59%), and grade F (49% and below).	
Results of education: By successful absolvation of this course, students will be familiar with the basic organic chemistry. They will get knowledge on the nomenclature of organic compounds, properties of the common organic compounds, the nature of the chemical reactions and some basic stereochemical terms and representations.	
Brief syllabus: 1. História organickej chémie a nomenklatúra organických zlúčenín. 2. Stereogénny uhlík, absolútna konfigurácia, optické izoméry, nomenklatúra chirálnych molekúl, racemická zmes. Stereochémia. Indukčný a mezomérny efekt, konjugované π – systémy. 3. Alkány, cykloalkány, bicykloalkány. Nomenklatúra, štruktúra, fyzikálne a chemické vlastnosti. 4. Alkény, cykloalkény. Nomenklatúra, štruktúra, fyzikálne a chemické vlastnosti. 5. Diény. Nomenklatúra, štruktúra, fyzikálne a chemické vlastnosti. 6. Alkíny. Nomenklatúra, štruktúra, fyzikálne a chemické vlastnosti. 7. Aromatické uhľovodíky. Nomenklatúra aromatických uhľovodíkov. Aromatickosť. Nomenklatúra, štruktúra, fyzikálne a chemické vlastnosti. 8. Reakcie aromatických uhľovodíkov. 9. Halogénuhľovodíky. Nomenklatúra halogénuhľovodíkov. Väzba C – halogén — polarita väzby, dipólový moment, polarizovateľnosť molekúl. Fyzikálne a chemické vlastnosti. Reakcie halogénuhľovodíkov. Grignardove činidlá. 10. Aromatické halogénderiváty.	
Literature: Odporúčaná literatúra:	

Devínsky F., a kol.(2001) : Organická chémia pre farmaceutov. 1. vyd. – Bratislava, Osveta, - 750 s. ISBN 80-8063-056-9
Kováč J., Kováč Š.,(1977) : Organická chémia. 1 vyd. – Bratislava, Vydavateľstvo technickej a ekonomickej literatúry, 928 s.
Antus S., Mátyus P., (2010) : Szerves kémia I. Budapest, Nemzeti Tankönyvkiadó, ISBN: 978 963 195 716 7
Balogh Á., (1990): Szerves kémia. Budapest, Tankönyvkiadó, ISBN 96 318 2741 0
Halmos I., (1992): Szerves kémia. Budapest, Műszaki Könyvkiadó, ISBN 96 310 9743 9
Kajtár M., (2009): Változatok négy elemre - Szerves kémia 1-2. ELTE Eötvös Kiadó Kft., ISBN: ISBN 978 963 284 114 4.
McMurry J., (2007) : Organická chemie, ISBN 987-80-7080-637-1
Červinka O., (1980) : Organická chemie - 2. vyd. – Praha, SNTL, ALFA - 791 s.
Panchartek J., Štěrba V., Večeřa M., (1977) : Organická chemie II- Reakční mechanismy - 1. vyd. - Pardubice - 316 s.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 39

A	B	C	D	E	FX
41.03	35.9	12.82	5.13	0.0	5.13

Teacher: Gábor Dibó, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ OC2/15	**Name:** Organic Chemistry II.
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar **Recommended extent of course (in hours):** **Per week:** 1 / 1 **For the study period:** 13 / 13 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 4.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester 2 writing tests are compulsory: the maximum points are 2 x 25 = 50. The minimum eligibility requirement for the oral exam is overall 25 points from the two writing tests. The maximum points at the oral exam are 50. The final evaluation comprises both the writing test and oral exam (maximum points 50 + 50 = 100). Grading system: grade A (90–100%), grade B (80–89%), grade C (70–79%), grade D (60–69%), grade E (50–59%), and grade F (49% and below).	
Results of education: By successfully finishing this course, students will learn the basic principles of organic chemistry. They will study the nomenclature of organic chemistry, the physical and chemical properties of the most important organic compounds, and the process of the basic organic reactions. In the future, they will be able to apply this basic knowledge for solving real practical problems.	
Brief syllabus: 1. Compounds with hydroxyl group. Alcohols and phenols. Reactivity of the hydroxyl group. Detection and identification of the hydroxyl derivatives 2. Ethers, thiols and sulfides 3. Compounds with carbonyl group. Aldehydes and ketones. 4. Carboxylic acids. Nomenclature, constitution. Physical and chemical properties 5. Functional derivatives of carboxylic acids. Acyl halides, anhydrides, esters, amides. 6. Written test 7. Carboxylic acid derivatives — acyl halides, amides 8. Nitrocompounds 9. Amines. Basicity of the amines. Reactions of the amines. Preparation and reactions of the diazonium salts 10. Heterocyclic compounds. Nomenclature, physical and chemical properties. 11. Polymers and plastics 12. Final writing test	
Literature: Bláha K.., et al. (1985): Chemie organických sloučenin. Díl první. - 1. vyd. - Praha : SNTL Nakladatelství technické literatúry, - 1131 s.	

Bláha K., et al. (1987) : Chemie organických sloučenin. Díl druhý - 1. vyd. - Praha : SNTL Nakladatelství technické literatúry, - 1056 s.
Devínsky F., et al. (2001) : Organická chémia pre farmaceutov. 1. vyd. – Bratislava, Osveta, - 750 s. ISBN 80-8063-056-9
Kováč J., Kováč Š.,(1977) : Organická chémia. 1 vyd. – Bratislava, Vydavateľstvo technickej a ekonomickej literatúry, 928 s.
Antus S., Mátyus P., (2010) : Szerves kémia I. Budapest, Nemzeti Tankönyvkiadó, ISBN: 978 963 195 716 7
Balogh Á., (1990): Szerves kémia. Budapest, Tankönyvkiadó, ISBN 96 318 2741 0
Halmos I., (1992): Szerves kémia. Budapest, Műszaki Könyvkiadó, ISBN 96 310 9743 9
Kajtár M.: Változatok négy elemre - Szerves kémia 1-2. ELTE Eötvös Kiadó Kft., ISBN: 9789 6328 4113 7
McMurry J., (2007) : Organická chemie, ISBN 987-80-7080-637-1
Červinka O., (1980) : Organická chemie - 2. vyd. – Praha, SNTL, ALFA - 791 s.
Panchartek J., et al. (1977) : Organická chemie II- Reakční mechanismy - 1. vyd. - Pardubice - 316 s.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 36

A	B	C	D	E	FX
30.56	44.44	19.44	2.78	2.78	0.0

Teacher: Mgr. Alexandra Hengerics Szabó, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ PC1/15	**Name:** Laboratory Course of Inorganic Chemistry

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 3

Recommended semester/trimester of study: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester the students will be issued two written tests each of maximum 30 points, while another amount of 40 points can be granted for his/her laboratory protocols. The final classification is obtained as the sum of points obtained for the written tests (60%) and from the classification of laboratory protocols (40%). For the final classification to be A one has to acquire 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.

Results of education:
During this practical course students will conduct the syntheses of selected inorganic compounds. Methods and chemicals employed are selected to cover the main types of inorganic compounds and are selected to provide necessary theoretical and practical skills not only within the organized pedagogical process, but also in the form of individual studies.

Brief syllabus:
1. Safety regulations and health protection in chemical laboratories. Laboratory guide.
2. Preparation of elements – powder copper.
3. Preparation of oxides – iron(III) oxide.
4. Preparation of acids – boric acid..
5. Preparation of hydroxides – nickel(II) hydroxide.
6. Preparation of salts – sodium chloride.
7. Written test.
8. Preparation of salts – barium nitrate.
9. Preparation of salts – potassium-aluminium sulphate dodecahydrate.
10. Preparation of salts – cobalt(II) chloride hexahydrate.
11. Preparation of complex compounds – copper(tetraammin)sulphate monohydrate.
12. Preparation of complex compounds – cobalt(hexaammin)chloride.
13. Written test.
14. Substitute lesson for missed classes/tasks.

Literature:
Fajnor V., (1992): Laboratórna technika, názvoslovie a chemické výpočty. Vysokoškolské skriptá, UK Bratislava, ISBN 80 223 0436 0

Sokolík J., a kol., (2012): Názvoslovie a príprava vybraných anorganických látok. UK Bratislava, ISBN 978 80 223 2913 2
Kotočová A., Valigura D., (1993): Všeobecná chémia- Návody na laboratórne cvičenia. Bratislava, Slovenská technická univerzita, ISBN 80 227 0560 8
Sokolík J., a kol., (1991): Laboratórne cvičenia a výpočty zo všeobecnej a anorganickej chémie.UK Bratislava, ISBN 80 223 0366 6
Sík J., (1992): Kémiai számítások képletgyűjteménye. Budapest, Műszaki Könyvkiadó, ISBN 00 0950 1
Kiss Zs., (2004): Összefoglaló feladatgyűjtemény – Kémiából – Megoldások. Budapest, Nemzeti Tankönyvkiadó, ISBN 963 19 5394 7

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 40

A	B	C	D	E	FX
50.0	12.5	22.5	12.5	2.5	0.0

Teacher: Mgr. Katarína Szarka, PhD., Mgr. Andrea Vargová, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ PC2/15	**Name:** Laboratory Course of Analytical Chemistry

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 3

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester the students will be issued two written tests each of maximum 30 points, while another amount of 40 points can be granted for his/her laboratory protocols. The final classification is obtained as the sum of points obtained for the written tests (60%) and from the classification of laboratory protocols (40%). For the final classification to be A one has to acquire 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.

Results of education:
Completing the Course the students acquire some specialized knowledge in Inorganic Chemistry involving skills for the proof of cations and anions together with utilizing these skills for the exploration of an unknown mixture. The aim of volumetric analysis is to acquire practical skills in preparing standard solutions, in conducting titrations with emphasis on analytical accuracy, and to master the required calculations for determining the analyte concentration in the sample examined.

Brief syllabus:
1. The classical division of cations and anions. Chemical tests of group I, II and III cations.
2. Chemical tests of group IV and V. Separation of group I. and II. cations.
3. Chemical tests of group III and IV. Anion tests.
4. Application of the classical division of cation for separating cations in an unknown sample.
5. Introduction to volumetric analysis. Solution standardization in volumetric analysis.
6. Alcalimetry of weak acids. Quantitative determination of acetic acid in vinegar.
7. Acidimetry. Alcality determination of sodium hydroxide.
8. Complexometry. Water hardness determination by chelatometry.
9. Indirect chelatometric determinations. Indirect determination of sulphates.
10. Reverse chelatometric determinations. Determination of aluminium.
11. Precipitation titrations. Argentometry. Determination of chlorides by Mohr.
12. Redox titrations. Manganometry. Determination of iron in samples.
13. Redox titrations. Bromatometrya. Determination of arsenic.
14. Substitute lesson for missed classes/tasks.

Literature:
Majer J., et al. (1988): Analytická chémia. Martin, Osveta, – 368 s.

Karlíček, R. a kol., (2009) : Analytická chemie pro farmaceuty, Karolinum, - 279 s., ISBN 978 80 246 1453 3
Čermáková Ľ., Feltl L., Němcová I., (1980) : Analytická chemie 2, Instrumentální analýza- pro SPŠ skupiny studijních odborů techniká chemie. - 1. vyd. – Praha, SNTL, Nakladatelství technické literatury, -272 s.
Churáček J., Kotrlý. S., (1983) : Analytická chemie II. - 1. vyd. - Pardubice, -190 s.
Okáč A., (1961) : Analytická chemie kvalitativní .- 1. vyd. - Praha : Nakladatelství akademie věd, - 550s.
Barcza, L. (2006): A mennyiségi kémiai analízis gyakorlati kézikönyve. Medicina Kiadó ISBN: 96 324 2961 3
Barcza, L. (2007) : Kvantitatív analitikai kémia. Budapest: Semmelweis Kiadó,
Barcza, L., Buvári, Á. (2009) : A minőségi kémiai analízis gyakorlati kézikönyve. Medicina Könyvkiadó, ISBN: 978 963 226 246 8.
Barcza, L., Buvári, Á. (2008) : A minőségi kémiai analízis alapjai. Medicina, ISBN:978 963 226 186 7.
Keller R. (Ed.) (1998): Analytical Chemistry. Wiley-VCH, Weinheim

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 36

A	B	C	D	E	FX
33.33	38.89	13.89	8.33	2.78	2.78

Teacher: doc. Ing. Ondrej Hegedűs, PhD., Mgr. Alexandra Hengerics Szabó, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ PC3/15	**Name:** Laboratory Course of Organic Chemistry

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 3

Recommended semester/trimester of study: 4.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester 2 writing tests are compulsory: the maximum points are 2 x 30 = 60. Further 40 points can be collected for the protocolls prepared during the lab work. The minimum requirement for the successful accomplishment of the course is overall 60 points, i.e. 60%. Grading system: grade A (90–100%), grade B (80–89%), grade C (70–79%), grade D (60–69%), grade E (50–59%), and grade F (49% and below).

Results of education:
Students will synthesize various selected organic compounds. By selecting the starting materials and the synthetic methods, students will learn the basic principles and gain practical expertise in basic synthetic organic chemistry.

Brief syllabus:
1. Lab works — the main emphasis is on the laboratory preparation of various organic compounds
2. Saturated, linear and cyclic hydrocarbons
3. Aromatic hydrocarbons
4. Halogen derivatives
5. Hydroxy derivatives
6. Ethers and nitro compounds
7. Writing test
8. Aldehydes, ketones, and organosulfur compounds
9. Carboxylic acids and derivatives
10. Substituted carboxylic acid derivatives
11. Natural products
12. Quantitative determination of food additives
13. Final writing test
14. Compensation day for missed classes

Literature:
Čižmáriková, R., (2012): Laboratórne cvičenia z organickej chémie . - 1. vyd. - Bratislava : Univerzita Komenského, 2012. - 115 s. - ISBN 978-80-223-3143-2.
Hrnčiar P., et al. (1988) : Organická chémia v príkladoch. - 1. vyd. - Bratislava : Prírodovedecká fakulta Univerzity Komenského, - 224 s.

Orosz Gy.,(1998): Szerves kémiai praktikum. Nemzeti Tankönyvkiadó, ISBN: 96 318 8408 2
Večeřa M., Gasparič J., (1973) : Důkaz a identifikace organických látek. - 2.přepracované vyd. - Praha : SNTL, Nakladatelství techniké literatury, - 422 s.
Eckchlager K., (1971) : Chyby chemických rozborů : Moderní metody v chemické laboratoři , svazek 6. - 2.přepracované vyd. - Praha : SNTL, Nakladatelství technické literatury, - 191 s.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 34

A	B	C	D	E	FX
70.59	17.65	5.88	2.94	0.0	2.94

Teacher: Gábor Dibó, PhD., Mgr. Andrea Vargová, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ PC4/15	**Name:** Laboratory Course of Physical Chemistry
Types, range and methods of educational activities: **Form of study:** Practical **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 3	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester there will be two written assessments for 30 points. Students can obtain additional 40 points for continuously transmitted laboratory protocols. The final evaluation arises from the average points of the two assessments (60%) and the laboratory protocols (40%). To achieve evaluation A 90-100% is needed, for evaluation B 80-89% is needed, for evaluation C 70-79% is needed, for evaluation D 60-69% is needed, and for evaluation E 50-59% is needed from the total number of points.	
Results of education: Practical course from physical chemistry is an integral part of the teaching process of theoretical physical chemistry. It applies the basic principles and laws of physical chemistry in laboratory practice. Students acquire necessary laboratory skills and the ability to process the results of experiments. Laboratory practice covers all areas of physical chemistry: chemical thermodynamics, structure and properties of matter, electrochemistry and chemical kinetics.	
Brief syllabus: 1. Safety and safeguard of health in chemical laboratory 2. Conduct Electricity in electrolytic solutions. 3. Electrolyte Solutions of Inorganic salts 4. Factors that Affect Reaction Rate. 5. Chemical Equilibrium, 6. Written assessment. 7. Conductivity - Conductometric Titrations 8. Spectrophotometry – determination of concentration of capsanthine. 9. HPLC - High Performance Liquid Chromatography – determination of concentration of vitamin C by HPLC. 10. Determination of dissociation equilibrium constant of weak acid. 11. Written assessment. 12. Replacement term of missed laboratory practices	
Literature: Kotek J.,(2007) : Laboratorní technika. Univerzita Karlova v Praze, Nakladateľství Karolinum, ISBN 978 80 246 1441 0	

Adamčík V., et al. (1989) : Fyzikálna chémia - Laboratórne cvičenia z fyzikálnej chémie. - 1. vyd. - Bratislava : alfa Vydavateľstvo technickej a ekonomickej literatúry, - 200 s. - ISBN 80-05-00424-9
Grančičová O., Vollárová O., (1984) : Cvičenia z fyzikálnej chémie : Vysokoškolské skriptá.- 2. vyd. - Bratislava : UK.
Ulický L., Vavra J., (1992) : Návody do cvičenia z fyzikálnej chémie. - 1. vyd. - Bratislava : Slovenská Vysoká Škola Technická v Bratislave.
Ševčík P., Adamčíková Ľ., (1982) : Pokročilé cvičenie z fyzikálnej chémie.- 1. vyd. - Bratislava : UK.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 29

A	B	C	D	E	FX
10.34	24.14	51.72	6.9	6.9	0.0

Teacher: prof. Róbert Mészáros, DSc., Attila Kardos, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ PC5/15	**Name:** Laboratory Course of Biochemistry

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 3

Recommended semester/trimester of study: 6.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester 2 writing tests are compulsory: the maximum points are 2 x 30 = 60. Further 40 points can be collected for the protocolls prepared during the lab work. The minimum requirement for the successful absolvation of the course is overall 60 points, i.e. 60%. The maximum points at the oral exam are 50. Grading system: grade A (90–100%), grade B (80–89%), grade C (70–79%), grade D (60–69%), grade E (50–59%), and grade F (49% and below).

Results of education:
Students will learn the fundamental biochemical methods and the experimental determination of several, biologically important materials. Students will obtain the ability and experiences in the lab work, they will be able to interpret the scientific results individually, and will have the practical ability to propose and manage independent research projects

Brief syllabus:
1. Stoichiometric determination of dry material content and wet
2. Hydrolysis of sugars, carbohydrates, and szacharides
3. Amino acids — separation of amino acid mixtures by thin-layer chromatography
4. Proteins — precipitation of casein from milk samples
5. Separation and detection of non-natural dyes
6. Written test
7. Separation and detection of natural dyes
8. Qualitative determination of ascorbic acid
9. Semiquantitative determination of quality properties in urine samples by HPLC
10. Quantitative determination of creatinine in urine samples by HPLC
11. Enzyme activity studies — Studying the activity profile of saccharase (invertase) in view of some external effects
12. The effect of the concentration of some heavy metals on the growth of microorganisms
13. Final writing test
14. Compensation day for missed classes

Literature:
Grones J., et al. (1986): Cvičenie metód z biochémie : Vysokoškolské skriptá. - 1. vyd. – Bratislava, Univerzita Komenského, - 64 s.

Karlubík M., (1990): Biochémia. Nitra: VŠP
Karlubík M., (1987) : Návody na cvičenia z biochémie. Nitra: VŠP
Michalík I., (1989) : Návody na cvičenia z biochémie rastlín. Nitra: VŠP
Hrnčiar P., (1988) : Organická chémia v príkladoch. - 1. vyd. - Bratislava : Prírodovedecká fakulta UK, - 224 s
Görbe A. et al. (2011): Biokémiai gyakorlatok . - 1. vyd. - Budapest : Medicina Könyvkiadó Zrt., - 95 s. - ISBN 978 963 226 320 5.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 28

A	B	C	D	E	FX
21.43	60.71	14.29	3.57	0.0	0.0

Teacher: doc. Ing. Ondrej Hegedűs, PhD., Mgr. Alexandra Hengerics Szabó, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University

Name of the faculty: Faculty of Education

Code: KCH/CHdb/SSB/15	**Name:** State Exam

Types, range and methods of educational activities:
Form of study:
Recommended extent of course (in hours):
Per week: For the study period:
Methods of study: present

Number of credits: 2

Recommended semester/trimester of study: 5., 6..

Level of study: I.

Prerequisites: KCH/CHdb/MPC/15 and KCH/CHdb/ANC/19 and KCH/CHdb/VSC/15 and KCH/CHdb/ZLT/15 and KCH/CHdb/ARC/15 and KCH/CHdb/FPC/19 and KCH/CHdb/PC1/15 and KCH/CHdb/OC1/15 and KCH/CHdb/PC2/15 and KCH/CHdb/FC1/15 and KCH/CHdb/OC2/15 and KCH/CHdb/PC3/15 and KCH/CHdb/BC1/15 and KCH/CHdb/FC2/15 and KCH/CHdb/PC4/15 and KCH/CHdb/BC2/15 and KCH/CHdb/PC5/15

Conditions for passing the subject:
Passed exam and succesfull accomplishe of the obligatory subjects. Oral answer of student evaluated by the Commission for state exams. Final evaluation: A - 100- 90% B - 89 - 80%, C - 79-70%, D - 69-60%, E - 59 - 50%. Credits are not awarded to student, who do not achieve 50%.

Results of education:
Through the subjects of the specialization, the graduate of the study programme Teacher Training in Chemistry (combined) masters the basic content of the disciplines of the specialization.

Brief syllabus:
Through the subjects of the specialization, the graduate of the study programme Teacher Training in Chemistry (combined) masters the basic content of the disciplines of the specialization.

Literature:
The suggested literatures available within information paper of the obligatory subjects.

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 28

A	B	C	D	E	FX
32.14	10.71	17.86	21.43	17.86	0.0

Teacher:

Date of last update: 20.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ VAC/15	**Name:** Selected Chapters from Inorganic Chemistry
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 2.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester, the students will be delivered a test of maximum 50 points, while he/she can gather another 50 points with homeworks assigned during the semester. For the successful termination of the course, one has to gather at least 50 points (i.e. 50% of the maximum count of points). For the final classification to be A one has to obtain 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.	
Results of education: Attending the course the student get some more detailed theoretical knowledge about the inorganic chemistry of elements and their compounds.	
Brief syllabus: 1. The periodic system of elements and the electron structure of their valence shells. 2. Compounds in general, lattice and bond types, characteristics and categories of compounds – hydrides, halogenides, oxides, peroxides, superoxides, oxoacids, sulphides, nitrides, fosfides, karbides, silicides, borides, cyanides, cyanates. 3. Hydrogen, bond types, occurence, preparation, its compounds and isotopes. 4. Alcali metals – elements of group I of the periodic system, bond types, compounds, the subgroup of copper. 5. Elements of group II of the periodic system, bond types, compounds, the subgroup of zinc. 6. Coordination compounds. 7. Elements of group III of the periodic system, bond types, compounds, the subgroup of scandium, hybridization types. 8. Elements of group IV of the periodic system, bond types, compounds, the subgroup of titanium. 9. Elements of group V of the periodic system, bond types, compounds, the subgroup of vanadium. 10. Elements of group VI of the periodic system, bond types, compounds, the subgroup of chromium. 11. Elements of group VII of the periodic system, bond types, compounds, the subgroup of manganese. 12. Elements of group VIII of the periodic system and their compounds.Prvky III. skupiny periodického systému, ich zlúčeniny, väzby, podskupina skandia, typy hybridizácie 13. Written test.	

Literature:

Odporúčaná literatúra:

Greenwood N. N., Earnshaw A., (1993): Chemie prvků I a II. ISBN 80-85427-38-9
Krätsmár - Šmogrovič J. a kol., (2007): Všeobecná a anorganická chémia. Osveta, ISBN 80 806 3245 8
Fajnor V., (1998) : Všeobecná a anorganická chémia. - 1. vyd. – Bratislava, Univerzita Komenského - 266 s. - ISBN 80-223-1257-6
Gažo J., Kohout J., Serátor M., (1981) : Všeobecná a anorganická chémia. Bratislava, ALFA - 804 s.
Lukeš I., (2009): Systematická anorganická chémie. - 1. vyd. – Praha, Nakladateľství Karolinum - 230 s. ISBN 978-80-246-1614-8
Zikmund M.,(1995): Anorganická chémia. Bratislava : Univerzita Komenského, ISBN 80-223-0919-2
Bánhidi L., (1989): Szervetlen kémia. Budapest, Tankönyvkiadó, ISBN 96 318 2192 7
Fehér D., (1987): Szervetlen kémia. Budapest, Tankönyvkiadó, ISBN 96 318 0282 5

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 39

A	B	C	D	E	FX
58.97	10.26	5.13	12.82	5.13	7.69

Teacher: doc. RNDr. Róbert Gyepes, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ VAN/16	**Name:** Calculations in Analytical Chemistry
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 3.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester, the students will be delivered two written tests. For the successful termination of the course, one has to gather at least 50 points (i.e. 50% of the maximum count of points). For the final classification to be A one has to obtain 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.	
Results of education: Attending the course the students get acquainted with theoretical basics of chemistry calculuses needed for analytical chemistry purpose.	
Brief syllabus: 1. Introduction – solutions, their concetration and determination of the solutions'concentration. 2. Chemical equilibrium – the concept of chemical equilibrium, equilibrium constatnt, strong and weak electrolyts. 3. Calculations the pH of strong and weak acids and their soils, puffers. 4. Precipitations – solubility, the impact of own ions for solubility. 5. Gravimetria, gravimetrc factor, calculations of quantities from gravimetrical analyses. 6. Titrimetry, standard solutions in titrimetric analyses, standardization of solutions, determination of the concentration of the analyt/titrand. 7. Standardization of the solutions, determination of their concentration. 8. Acido-basic analytical methods to determine the quantum of chemical substances. 9. Oxidation and reduction methods (permanganometry) used to determine the quantum of chemical substances. 10. Oxidation and reduction methods (iodometry) used to determine the quantum of chemical substances. 11. Complexation and it's methods to determine the quantum of chemical substances. 12. Introduction into the chemometry. The basic poems and calculuses.	
Literature: Karlíček R., a kol. (2009): Analytická chemie pro farmaceuty. Karolinum, ISBN 97 8802 46 1453 3 Majer J., (1989) : Analytická chémia. - 1. vyd. - Martin : Osveta n.p., - 368 s. Holzbecher Z., Churáček J., (1987) : Analytická chemia. - 1. vyd. – Praha, SNTL - Nakladatelství technické literatury, - 663 s. Barcza L., (2006): A mennyiségi kémiai analízis gyakorlati kézikönyve.	

Medicina Kiadó, ISBN: 963 2429 61 3 Barcza L., (2007): Kvantitatív analitikai kémia. Budapest, Semmelweis Kiadó, ISBN 978 963 9656 73 4 Barcza L., Buvári Á., (2009): A minőségi kémiai analízis. Medicina Könyvkiadó, ISBN 978 9 6 322 6186 7

Language, knowledge of which is necessary to complete a course:
-

Notes:

Evaluation of subjects
Total number of evaluated students: 15

A	B	C	D	E	FX
13.33	33.33	20.0	26.67	6.67	0.0

Teacher: doc. Ing. Ondrej Hegedűs, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ VBC/18	**Name:** Selected Chapters from Biochemistry
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 6.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject:	
Results of education:	
Brief syllabus:	
Literature:	
Language, knowledge of which is necessary to complete a course:	
Notes:	
Evaluation of subjects Total number of evaluated students: 8	
a	n
100.0	0.0
Teacher: Mgr. Andrea Vargová, PhD.	
Date of last update: 02.05.2022	
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.	

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ VFC/15	**Name:** Selected Chapters from Physical Chemistry
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester there will be one written assessment for 50 points, students can gain additional 50 points for submitted works. The requirement for passing the course is to achieve at least 50 points, i.e. 50% of the total. To achieve evaluation A 90-100% is needed, for evaluation B 80-89% is needed, for evaluation C 70-79% is needed, for evaluation D 60-69% is needed, and for evaluation E 50-59% is needed from the total number of points	
Results of education: After completing the course, student is able to connect theoretical knowledge with practice through solving problems and examples from selected areas of physical chemistry.	
Brief syllabus: 1. Introduction, Physical Units and Properties. 2. Equations of State and the Ideal Gas Law, State Functions and Path Functions Kinetic Theory of Gase. 3. Thermodynamics. 4. Thermochemistry. 5. Multi-Component and Multi-Phases Systems. 6. Chemical Equilibrium. 7. Electrolyte Solutions, Thermodynamics of Ion Formation and Solvation 8. Conduct Electricity in electrolytic solutions, Faraday's Law, Conductivity,. 9. Electrochemical Cells, Batteries, The, Electrodes and Electrode potential. 10. Chemical Kinetics, Rate Laws, Reaction rates. 11. Written assessment 12. End of Course	
Literature: Atkins, P.W.: Fizikai kémia I-III. a tankönyvi feladatok megoldására. Tankönyvkiadó, 1991. ISBN 9631843505 Atkins, P. W.: Fizikai kémia I. Egyensúly. Budapest: Nemzeti Tankönyvkiadó, 2002. ISBN: 9631933148 Atkins, P. W.: Fizikai kémia II. Szerkezet. Budapest: Nemzeti Tankönyvkiadó, 2002. ISBN: 963192145X	

Biskupič S., Kellö V., Staško A., Vavra J., (1991) : Fyzikálna chémia I. - 1. vyd. - Bratislava ALFA - 296 s. - ISBN 80-05-00931-3
Brdička R., (1977): Základy fysikální chemie. Praha, ACADEMIA
Čipera J., (1990): Fyzikálna chémia. Bratislava: Osveta, ISBN 80 217 0134 x
Ulický L., Vavra J., (1992) : Návody do cvičenia z fyzikálnej chémie. - 1. vyd. – Bratislava, SVŠT v Bratislave - 216 s.
Ulický L., a kol., (1972) : Štruktúra tuhej fázy. - 1. vyd. – Bratislava, SVŠT v Bratislave- 130 s.
Ulický L., Fyzikálna chémia I., FPV UCM, 1999

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 30

A	B	C	D	E	FX
13.33	23.33	23.33	26.67	13.33	0.0

Teacher: doc. Ing. Ondrej Hegedűs, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ VKM/15	**Name:** Selected Chapters from Mathematics
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 1.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester there will be one written assessment for 50 points, students can gain additional 50 points for regularly submitted works. The requirement for passing the course is to achieve at least 50 points, i.e. 50% of the total. To achieve evaluation A 90-100% is needed, for evaluation B 80-89% is needed, for evaluation C 70-79% is needed, for evaluation D 60-69% is needed, and for evaluation E 50-59% is needed from the total number of points.	
Results of education: By completing the course, students gain knowledge of linear algebra, mathematical analysis and statistics, and they simultaneously gain skills for working with the mathematical apparatus as well.	
Brief syllabus: 1. Expressions, Transformation of Expressions, polynoms, the complex numbers. 2. Vectors, Vector Spaces And Fields , Matrices, Determinants, Linear systems of equations. 3. Algebraic equations. Groups of molecular symmetries, 4. Real function of one variables – definition and properties, graphs, elementary functions. 5. Limit of a function, continuity for real function. 6. Differentiable Functions of One Variable – Definition of the Derivative, L'Hospital's Rule, Use of Differential Calculus in Chemistry. 7. Integral Calculus of Functions of One Variables - Definition of the Integral, methods of Integral Calculus, Rieman Integral, Newtonov – Leibniz formule, application of the integral Use of Integral in Chemistry. 8. Written assessment. 9. First order Differential Equations – with separable variables, homogenous, linear, equations with constant coefficients, Use of Differential equations in Chemistry. 10. Basic Differential and Integral Calculus of real functions with multiple variables – definitions, properties of functions, partial derivatives, gradient, multiple Integral. 11. Infinite Sequences and Series, Taylor´s Theorem, 12. Statistical analysis of measurements. 13. Graphical analysis of measurements.	
Literature:	

Odporúčaná literatúra:
Neubrunn T., (1992): Matematická analýza I . - 1. vyd. – Bratislava, Univerzita Komenského, 190 s. - ISBN 80-223-0055-1.
Neubrunn T., (1992) : Matematická analýza II. - 1. vyd. - Bratislava, Univerzita Komenského, 166 s. - ISBN 80-223-0051-9.
Krajňáková D., Míčka J., Machačová Ľ., (1988): Zbierka úloh z matematiky. Bratislava, Alfa, 538 s. - ISBN 0002566.
Chajdiak J., (2002): Štatistika v Exceli . 1. vyd. – Bratislava, Statis,. 159 s. - ISBN 80-85659-27-1.
Petres T., (2003): Statisztika. Szeged , JATEPress, 272 s. - ISBN 0242073

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 43

A	B	C	D	E	FX
11.63	20.93	9.3	23.26	27.91	6.98

Teacher: Dr. habil. PaedDr. György Juhász, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ VKO/15	**Name:** Selected Chapters from Organic Chemistry
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 3.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester a writing test is compulsory: the maximum points are 50. Further 50 points can be collected from project work. The minimum requirement for the successful accomplishment of the course is overall 50 points, i.e. 50% of 100 points. Grading system: grade A (90–100%), grade B (80–89%), grade C (70–79%), grade D (60–69%), grade E (50–59%), and grade F (49% and below).	
Results of education: After the successful accomplishment of his/her studies, students will become familiar with the nomenclature of organic compounds, and will be able to solve problems in the field of organic chemistry. He/she will be able to characterize the fundamental groups of organic chemistry, successfully arrange the reaction equations of organic compounds and interpret the basic principles of stereochemistry.	
Brief syllabus: 1. Chemical bonds in organic compounds. Stereochemistry 2. Chemical calculations 3. Nomenclature of hydrocarbons 4. Nomenclature of hydrocarbon derivatives 5. Writing tests 6. Alkanes and cycloalkanes. Free radical substitution (SR) 7. Alkenes and alkynes. Electrophilic addition (AdE) 8. Arenes. Aromaticity 9. Reaction of aromatic compounds. Aromatic electrophilic substitution (aromatic SE) 10. Organohalogenic compouds. Reaction of alkyl halides. Nucleophilic substitution (SN) and elimination (E) 11. Final writing test	
Literature: Čižmáriková,R.et al. (2012): Laboratórne cvičenia z organickej chémie. Bratislava: Univerzita Komenského, 116 s., ISBN 978-80-223-3143-2. Hrnčiar P., (1988) : Organická chémia v príkladoch. Bratislava, Univerzita Komenského	

Devínsky F., a kol.(2001) : Organická chémia pre farmaceutov. 1. vyd. – Bratislava, Osveta, - 750 s. ISBN 80-8063-056-9
Kováč J., Kováč Š.,(1977) : Organická chémia. 1 vyd. – Bratislava, Vydavateľstvo technickej a ekonomickej literatúry, 928 s.
Bláha K., et al. (1985): Chemie organických sloučenin. Díl první - 1. vyd. - Praha : SNTL Nakladatelství technické literatúry, - 1131 s.
Antus S., Mátyus P., (2010) : Szerves kémia I. Budapest, Nemzeti Tankönyvkiadó, ISBN: 978 963 195 716 7
McMurry J., (2007) : Organická chemie, ISBN 987-80-7080-637-1
Červinka O., (1980) : Organická chemie - 2. vyd. – Praha, SNTL, ALFA - 791 s.
Panchartek J., et al. (1977) : Organická chemie II- Reakční mechanismy. -Pardubice

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 37

A	B	C	D	E	FX
78.38	13.51	2.7	2.7	0.0	2.7

Teacher: Gábor Dibó, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ VSC/15	**Name:** General Chemistry
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar **Recommended extent of course (in hours):** **Per week:** 2 / 1 **For the study period:** 26 / 13 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 1.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester there will be two written assessments for 25-25 points, in order to access the oral test, students have to achieve at least 25 points from the two assessments together, i.e. 50% of the total. For the oral examination the student can get 50 points. The final evaluation result depends on the oral exam and on the written assessments (50%-50%). To achieve evaluation A 90-100% is needed, for evaluation B 80-89% is needed, for evaluation C 70-79% is needed, for evaluation D 60-69% is needed, and for evaluation E 50-59% is needed from the total number of points.	
Results of education: After the successful completion of the educational process, the student acquires basic principles of chemical patterns, identifies general chemical definitions and types of chemical bonds and reactions. The student understands the atomic structure, and is able to express the reaction rates and mechanism of chemical reactions. The student knows the properties of various solutions and the principles of electrochemistry. At the end the student will be able to integrate the acquired knowledge in further education.	
Brief syllabus: Introduction to Chemistry – History of Chemistry 2. Basic Chemical Principles and Definitions (elements, substances, molecules, Avogadro´s Law). 3. Atomic Structure (discovery of electron, Rutherford and Bohr Atomic model). 4. The quantum mechanical model of the atom 5. The periodic law and Periodic Table 6. Written assessment 7. Chemical Bond, Classical Theory (Berzelius, Frankland) and Semi_Classical Theory of Chemical Bonds (Kössel and Lewis). 8. Theory of Molecular Orbitals, # - bonds in H2 molecule, # - bonds. 9. Types of Chemical Bonds (covalent, polar bonds, ionic bonds). 10. Chemical Reactions – rates of Chemical Reactions, Mechanism and rates, Rates Equations, Rates constant. 11. Catalysis and biocatalysis. Energetics of Chemical Reactions (#Gr, #Hr, #Sr). 12. Properties of electrolytic solutions, acids and bases.	

13. Basic Principles of Electrochemistry, electrolysis and electrochemical cells.
14. Written assessment.

Literature:

Kotočová A., (1993): Všeobecná chémia. Bratislava, Slovenská technická univerzita, ISBN 80 227 0560 8
Gažo J. a kol., (1981): Všeobecná a anorganická chémia. Bratislava, ALFA
Čársky P., (1985): Ab initio výpočty v chémii. Praha, SNTL, Nakladatelství technické literatury
Csányi Cs., (2002): Kémiai példatár és tesztgyűjtemény megoldásokkal. Budapest, ISBN 96 316 2112 X
Gyorbíró K., (1994): Általános kémia. Budapest, Műszaki Könyvkiadó, ISBN 00 0255 3
Kiss Zs., (2004): Összefoglaló feladatgyűjtemény kémiából - Megoldások. Budapest, Nemzeti Tankönyvkiadó, ISBN 963 19 5394 7
Rózsahegyi M.,(1996): Érettségi felvételi feladatok. Mozaik Oktatási Stúdió, ISBN 963 697 017 3

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 44

A	B	C	D	E	FX
11.36	15.91	22.73	29.55	15.91	4.55

Teacher: Dr. habil. PaedDr. György Juhász, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ ZCH/18	**Name:** Green Chemistry
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject:	
Results of education:	
Brief syllabus:	
Literature:	
Language, knowledge of which is necessary to complete a course:	
Notes:	

Evaluation of subjects
Total number of evaluated students: 5

a	n
100.0	0.0

Teacher: Gábor Dibó, PhD.
Date of last update: 02.05.2022
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University

Name of the faculty: Faculty of Education

Code: KCH/CHdb/ ZCM/16	**Name:** Chemometrics and the basics of quality systems in laboratory

Types, range and methods of educational activities:
Form of study: Seminar
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 4.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester, the students will be delivered two written tests. For the successful termination of the course, one has to gather at least 50 points (i.e. 50% of the maximum count of points). For the final classification to be A one has to obtain 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.

Results of education:
Attending the course the students will able to make calculuses of analytical chemistry analyses and can make statistical calculations of the result and interpret them. The students get acquainted with the recent trends of laboratory quality management.

Brief syllabus:
bsbsjd

Literature:
Karlíček R., a kol. (2009): Analytická chemie pro farmaceuty. Karolinum, ISBN 97 8802 46 1453 3 Majer J., (1989) : Analytická chémia. - 1. vyd. - Martin : Osveta n.p., - 368 s. Holzbecher Z., Churáček J., (1987) : Analytická chemia. - 1. vyd. – Praha, SNTL - Nakladatelství technické literatury, - 663 s. Barcza L., (2006): A mennyiségi kémiai analízis gyakorlati kézikönyve. Medicina Kiadó, ISBN: 963 2429 61 3 Barcza L., (2007): Kvantitatív analitikai kémia. Budapest, Semmelweis Kiadó, ISBN 978 963 9656 73 4 Barcza L., Buvári Á., (2009): A minőségi kémiai analízis. Medicina Könyvkiadó, ISBN 978 9 6 322 6186 7

Language, knowledge of which is necessary to complete a course:
-

Notes:

Evaluation of subjects
Total number of evaluated students: 23

A	B	C	D	E	FX
56.52	26.09	4.35	4.35	8.7	0.0

Teacher: doc. Ing. Ondrej Hegedűs, PhD.

Date of last update: 02.05.2022
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ ZCV/15	**Name:** The Basics of Chemistry Calculuses

Types, range and methods of educational activities:
Form of study: Seminar
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 1.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester the students will be issued a test of maximum 50 points, while another amount of 50 points can be acquired for his/her homework. For a successful completion of the course one has to gather at least 50 point, i.e. 50% of the total points possible. For the final classification to be A one has to acquire 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.

Results of education:
Within the educational process the students acquire knowledge about the relation between fundamental physical quantities and become capable of using basic chemical calculations, needed for the most common laboratory tasks

Brief syllabus:
1. Introduction. Physical quantities and measures.
2. Quantity of substances, particle count, amount of substance, mass, volume, relations between the measures of quantity.
3. Calculation of chemical formulae and chemical equations.
4. Solutions, mass fraction and molar fraction.
5. Concentration of solutions.
6. Written test.
7. Volume fraction.
8. Solubility and the product of solubility,
9. Composition of multicomponent systems, the density of solutions.
10. Preparation of solutions.
11. Mass balance in chemical systems.
12. Conclusion.

Literature:
Odporúčaná literatúra:
Krätsmár-Šmogrovič, J. a kol.(2007): Všeobecná a anorganická chémia. Osveta, ISBN 80 806 3245 8
Fajnor V.,(1992) Laboratórna technika, názvoslovie a chemické výpočty. Vysokoškolské skriptá, UK Bratislava, ISBN 80 223 0436 0

Sokolík J., (2012) Názvoslovie a príprava vybraných anorganických látok, UK Bratislava, ISBN 978 80 223 2913 2
Fajnor V., (1998): Všeobecná a anorganická chémia. Vysokoškolské skriptá - 1. vyd. – UK Bratislava, 266 s. - ISBN 80-223-1257-6
Kiss Zs.,(2004): Összefoglaló feladatgyűjtemény kémiából – Megoldások. Budapest, Nemzeti Tankönyvkiadó,. ISBN 963 19 5394 7
Kotočová A., Valigura D.,(1993): Všeobecná chémia- Návody na laboratórne cvičenia. Bratislava: Slovenská technická univerzita, ISBN 80 227 0560 8
Sík J., (1992): Kémiai számítások képletgyűjteménye. Budapest: Műszaki Könyvkiadó, ISBN 963 10 9419 7

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects

Total number of evaluated students: 41

A	B	C	D	E	FX
17.07	24.39	26.83	4.88	21.95	4.88

Teacher: Mgr. Katarína Szarka, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/CHdb/ ZLT/15	**Name:** Basic Laboratory Skills

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 3

Recommended semester/trimester of study: 1.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester the students will be issued two written tests each of maximum 30 points, while another amount of 40 points can be granted for his/her laboratory protocols. The final classification is obtained as the sum of points obtained for the written tests (60%) and from the classification of laboratory protocols (40%). For the final classification to be A one has to acquire 90-100% of the total points, for B 80-89%, for C 70-79%, for D 60-69% and for E 50-59%.

Results of education:
Upon completing the educational process the students acquire basic laboratory skills and become trained for handling the basic laboratory equipment. They become acquainted with basic laboratory procedures which they will be able to conduct by themselves with emphasis on adhering to laboratory safety regulations and rules.

Brief syllabus:
1. Introduction. Laboratory regulations.
2. Safety and health Safety regulations and health protection in chemical laboratories, hygiene prescriptions, first aid in case of laboratory accident, fire safety.
3. Materials for laboratory use – glass, porcelain, rubber, cork, paper, metals, alloys and other materials.
4. Basic laboratory operations – measurement of mass, volume and density, dissolving, heating, cooling, precipitating, drying.
5. Cleaning and separation methods - decantation, centrifugation, crystallization, sublimation, distillation.
6. Filtration – classical and under low pressure.
7. Distillation under atmospheric pressure and vacuum distillation.
8. Solubility and solubility product.
9. Crystallization.
10. Sublimation.
11. Determination of density using a pycnometer.
12. Conductometry
13. Conclusion.

Literature:

Odporúčaná literatúra:
Fajnor V., a kol. (1992) : Laboratórna technika, názvoslovie a chemické výpočty. UK Bratislava, ISBN 80 223 0436 0
Sokolík J., a kol. (2012): Názvoslovie a príprava vybraných anorganických látok. UK Bratislava, ISBN 978 80 223 2913 2
Kiss Zs., (2004) : Összefoglaló feladatgyűjtemény kémiából - Megoldások. Budapest, Nemzeti Tankönyvkiadó, ISBN 963 19 5394 7
Kotočová A., Valigura D., (1993) : Všeobecná chémia - Návody na laboratórne cvičenia. Bratislava STU, ISBN 80 227 0560 8
Sík J., (1992): Kémiai számítások képletgyűjteménye. Budapest, Műszaki Könyvkiadó, ISBN 963 10 9419 7

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 40

A	B	C	D	E	FX
40.0	40.0	15.0	5.0	0.0	0.0

Teacher: Mgr. Katarína Szarka, PhD., Mgr. Alexandra Hengerics Szabó, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/Chdb/ OK1/19	**Name:** Conversation of Chemistry Disciplines in Slovak Language 1
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 1.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: 80% of presence on the seminars, working out the final seminar project and its presentation.	
Results of education: Through the subject student able to use slovak terminology of gyeneral chemistry.	
Brief syllabus: 1. Introduction to Chemistry – History of Chemistry 2. Basic Chemical Principles and Definitions. 3. Atomic Structure. 4. The quantum mechanical model of the atom 5. The periodic law and Periodic Table. 6. Chemical Bond, Classical Theory (Berzelius, Frankland) and Semi_Classical Theory of Chemical Bonds (Kössel and Lewis). 7. Theory of Molecular Orbitals. 8. Types of Chemical Bonds. 9. Chemical Reactions – rates of Chemical Reactions, Mechanism and rates, Rates Equations, Rates constant. 10. Energetics of Chemical Reactions (#Gr, #Hr, #Sr). 11. Catalysis and biocatalysis. 12. Properties of electrolytic solutions, acids and bases. 13. Basic Principles of Electrochemistry, electrolysis and electrochemical cells.	
Literature: Kotočová A., (1993): Všeobecná chémia. Bratislava, Slovenská technická univerzita, ISBN 80 227 0560 8 Gažo J. a kol., (1981): Všeobecná a anorganická chémia. Bratislava, ALFA	
Language, knowledge of which is necessary to complete a course:	
Notes:	
Evaluation of subjects Total number of evaluated students: 11	

a	n
100.0	0.0
Teacher: Mgr. Andrea Vargová, PhD.	
Date of last update: 02.05.2022	
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.	

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/Chdb/ OK2/19	**Name:** Conversation of Chemistry Disciplines in Slovak Language 2

Types, range and methods of educational activities:
Form of study: Seminar
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
80% of presence on the seminars, working out the final seminar project and its presentation.

Results of education:
Through the subject student is able to use slovak terminogy of inorganic chemistry.

Brief syllabus:
1. The periodic system of elements and the electron structure of their valence shells.
2. Compounds in general, lattice and bond types, characteristics and categories of compounds.
3. Hydrogen, bond types, occurence, preparation, its compounds and isotopes.
4. General properties of metals (including transition metals).
5. Coordination compounds.
6. Alcali metals – elements of group I of the periodic system, bond types, compounds, the subgroup of copper.
7. Alcaline earth metals – elements of group II of the periodic system, bond types, compounds, the subgroup of zinc.
8. Elements of group III of the periodic system, bond types, compounds, the subgroup of scandium, hybridization types.
9. Elements of group IV of the periodic system, bond types, compounds, the subgroup of titanium.
10. Elements of group V of the periodic system, bond types, compounds, the subgroup of vanadium.
11. Elements of group VI of the periodic system, bond types, compounds, the subgroup of chromium.
12. Elements of group VII of the periodic system, bond types, compounds, the subgroup of manganese.
13. Elements of group VIII of the periodic system and their compounds.

Literature:
Krätsmár - Šmogrovič J. a kol., (2007): Všeobecná a anorganická chémia. Osveta, ISBN 80 806 3245 8
Fajnor V., (1998) : Všeobecná a anorganická chémia. - 1. vyd. – Bratislava, Univerzita Komenského - 266 s. - ISBN 80-223-1257-6
Gažo J., Kohout J., Serátor M., (1981) : Všeobecná a anorganická chémia. Bratislava, ALFA - 804 s.

Lukeš I., (2009): Systematická anorganická chémie. - 1. vyd. – Praha, Nakladateľství Karolinum - 230 s. ISBN 978-80-246-1614-8.
Zikmund M.,(1995): Anorganická chémia. Bratislava : Univerzita Komenského, ISBN 80-223-0919-2

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 8

a	n
100.0	0.0

Teacher: Mgr. Andrea Vargová, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KCH/KCH/ CHdb/BPO/15	**Name:** Bacalar Thesis and Its' Defens
Types, range and methods of educational activities: **Form of study:** **Recommended extent of course (in hours):** **Per week: For the study period:** **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 5., 6..	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Submission of the final dissertation. The referee's and supervisor's positive reviews. The successful defense of the bacselor dissertation	
Results of education: The candidate will learn the rules of the preparation, and independently will make and submit the final dissertation	
Brief syllabus: 1. The type and administration of the dissertation 2. Structure of the dissertation 3. The arrangement of the chapters and formation the essay 4. Citations and bibliographic part, literature list 5. Introduction and importance of the selected topic 6. Formation of the hypothesis, the goal of the study and the objective 7. Methodology of the topics. The selection of the methods 8. Discussion and summary of the results. Interpretation and summary 9. Conclusion. Supplements 10. Submission of the dissertation, license agreement, statement of honour	
Literature: Smernica rektora Univerzity J. Selyeho Komárno o úprave, registrácii, sprístupnení a archivácii záverečných prác na Univerzite J. Selyeho. - Vždy aktuálne vydanie Smernice Katuščák D. (2008) : Ako písať záverečné a kvalifikačné práce. - 5. vyd. - Nitra : Enigma, 164 s. - ISBN 978 80 89 132 45 4 Albert S. (2001) : Písanie záverečnej práce. Košice, Technická univerzita – 47 s. - ISBN 80 709 9727 3 Albert S. (2007) : Dolgozatok írása. Komárno SJE, ISBN 978-80-89234-22-6 Odborná literatúra – podľa schválenej témy bakalárskej práce.	
Language, knowledge of which is necessary to complete a course:	
Notes:	

Evaluation of subjects
Total number of evaluated students: 5

A	B	C	D	E	FX
40.0	40.0	0.0	20.0	0.0	0.0

Teacher:

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ ALG1/15	**Name:** Algebra 1
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar / Practical **Recommended extent of course (in hours):** **Per week:** 2 / 1 / 0 **For the study period:** 26 / 13 / 0 **Methods of study:** present	
Number of credits: 5	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Evaluation is based on two tests written during the semester, each worth 50 points. The minimum scores required to earn for the individual grades are the following: 91 points for A, 81 points for B, 71 points for C, 61 points for D and 51 points for E. If the above conditions are not met, a written exam worth 100 points is to be taken during the examination period.	
Results of education: Basic concepts of abstract algebra, binary operations, algebraic structures. Group, sub-group. The student is introduced to the basic concepts of abstract algebra, is able to classify the fundamental and binary operation algebraic structures. He is aware of the concept of group homomorphism and is able to determine the core and image of homomorphism. He knows the even and odd permutations and the concept of ideal, maximal ideal and prime ideal.	
Brief syllabus: Elements of abstract algebra, binary operations and algebraic structures. Group, subgroup, homomorphism, standard dividers, cyclic groups. Permutation groups, the parity of permutations. Ring, integral domain, numerical body. Divisibility in integral domains. Gauss rings, Euclidean rings, polynomial rings. Ideals, maximal and prime ideal.	
Literature: Kaluzsnyin: Bevezetés az absztrakt algebrába, Tankönyvkiadó, Budapest,1979. 473s. ISBN 963 17 4369 1. Szendrei, J.: Algebra és számelmélet, Nemzeti Tankönyvkiadó, Budapest, 2001. ISBN 9631924017	
Language, knowledge of which is necessary to complete a course: Hungarian, Slovak	
Notes:	
Evaluation of subjects Total number of evaluated students: 101	

A	B	C	D	E	FX
8.91	24.75	20.79	18.81	18.81	7.92

Teacher: doc. RNDr. Ferdinánd Filip, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ ALG2/15	**Name:** Algebra 2

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 2 / 1 / 0 **For the study period:** 26 / 13 / 0
Methods of study: present

Number of credits: 5

Recommended semester/trimester of study: 6.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Evaluation is based on two tests written during the semester, each worth 50 points. The minimum scores required to earn for the individual grades are the following: 91 points for A, 81 points for B, 71 points for C, 61 points for D and 51 points for E. If the above conditions are not met, a written exam worth 100 points is to be taken during the examination period.

Results of education:
The student understands the basic properties of polynomials. He knows and is able to apply the Horner method in polynomial root finding. He knows the polynomial division and can determine the greatest common divisor of two polynomials using the Euclidean algorithm. The student can decompose the polynomials into multiplied irreducible polynomials over a number of different numerical bodies. He is familiar with the fundamentals of algebra and the connection between radicals and coefficients. He is aware of the solving formulas for second and third degree equations as well as the solving methods of binomial equations and those reducible to a lesser degree.

Brief syllabus:
Polynomials and polynomial functions. Horner's scheme. Divisibility of polynomials, Euclidean algorithm. Roots of polynomials, decomposition of polynomial into irreducible factors. Polynomials over rational, real and complex numerical bodies. The fundamental proposition of algebra. Taylor’s series expansion, multiple radicals. Symmetric polynomials. Connection between radicals and coefficients. Solving second- and third-degree equations, binomial equations. Approximate solutions of equations.

Literature:
Katriňák a kol.: Algebra a teoretická aritmetika 1, Alfa, Bratislava, 1985
Kaluzsnyin: Bevezetés az absztrakt algebrába, Tankönyvkiadó, Budapest,1979. 473s. ISBN 963 17 4369 1.
Szendrei, J.: Algebra és számelmélet, Nemzeti Tankönyvkiadó, Budapest, 2001. ISBN 9631924017

Language, knowledge of which is necessary to complete a course:
Hungarian, Slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 133

A	B	C	D	E	FX
13.53	18.8	18.8	18.8	27.07	3.01

Teacher: prof. László Szalay, DSc.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ FAP/15	**Name:** Functions and Sequences

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 1 / 2 / 0 **For the study period:** 13 / 26 / 0
Methods of study: present

Number of credits: 4

Recommended semester/trimester of study: 1.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester, students write two tests, each worth 10 points. They can also obtain maximum 10 points for homework and presentations. The exam consists of a written and oral part, each worth maximum 35 points. After adding up the results, the minimum and maximum scores required to earn for the individual grades are the following: minimum 91 points for A, 81-90 points for B, 71-80 points for C, 61-70 points for D and 51-60 points for E.

Results of education:
The students recognize the basic functions and sequences of mathematical analysis. He is able to identify important function features and apply them correctly when solving tasks. He knows the exact interpretation of sequence limits. He is able to calculate the limit of specific sequences and examine the question of convergence for sequences.

Brief syllabus:
General function concept. Interpretation range and domain. Elementary functions and basic function properties. Function transformations and the representation of elementary functions. Intermittent functions. The composition of functions and the concept of inverse functions. Arcos and hyperbolic functions. Number sequences. Arithmetic, geometric and recursive sequences. Complete induction. Convergence of sequences. Classification of divergent sequences. Cauchy's criterion for convergence. Limit of bounded and monotone functions. Partial sequences. Limits of noted functions. Euler's number.

Literature:
T. Neubrunn, J. Vencko: Matematická analýza 1, skriptum, Bratislava, UK 1989. 190 s. ISBN 80-223-0055-1.
G.B. Thomas: Thomas-féle KALKULUS I. kötet - 3.,javított kiadás, Budapest, Typotex 2011
T. Szerényi: Analízis, Budapest, Tankönyvkiadó 1990. 560 s. ISBN 963 18 30009 8.
Gy.J. Obádovics: Felsőbb matematikai feladatgyűjtemény, Scolar 2003. 562. ISBN 9639193119.
J. Urbán: Határértékszámítás, Budapest, Műszaki Könyvkiadó 2003. 452 s. ISBN 963 16 3072 2.
G. Denkinger, L. Gyurkó: Analízis: Gyakorlat, Budapest, Nemzeti Tankönyvkiadó 2001. 379. ISBN 9631946134.

Language, knowledge of which is necessary to complete a course:

Hungarian, Slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 54

A	B	C	D	E	FX
18.52	12.96	11.11	29.63	24.07	3.7

Teacher: Dr. habil. Kálmán Csaba Liptai, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ GEO1/15	**Name:** Geometry 1

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 2 / 1 / 0 **For the study period:** 26 / 13 / 0
Methods of study: present

Number of credits: 5

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
For the successful completion of the course students are expected to hand in homework assignments (30 points) and pass an exam at the end of the semester consisting of a written part (50 points) and an oral part (20 points). The minimum scores required to achieve for the individual grades are the following: 91 points for A, 81 points for B, 71 points for C, 61 points for D and 51 points for E.

Results of education:
The course deals with the topics of the Euclidean plane geometry while developing logical and creative thinking and deepening the knowledge of geometrical plane shapes. By successfully completing the course students acquire in-depth knowledge of the Euclidean geometry and gain an overview over the area they might need as future teachers of mathematics. The student knows the structure of geometry, the composition principles of plane geometry, the specified topic areas of the syllabus and he can use them in geometrical drawing tasks.

Brief syllabus:
Basic concepts of geometry, matching, sorting, mutual position of linear spatial elements, congruence. Geometrical places (point sets with specific properties). Basic principles of solving geometrical drawing tasks. Classification of plane shapes. The golden section ratio and its application. Metric properties of geometric shapes. Triangular geometry. Circular geometry. Central and peripheral angles. Cyclic quadrilaterals. Power of point over circle, power line. Drawing tasks. Solving Apollonius tasks (without circular inversion)

Literature:
Hajós, Gy.: Bevezetés a geometriába, Nemzeti Tankönyvkiadó, Budapest, 1999. 596. ISBN 9631901165
Horvay, K.: Geometriai feladatok gyűjteménye I-II., Nemzeti Tankönyvkiadó, Budapest, 1993. ISBN 9631848868
Pelle, B.: Geometria, Tankönyvkiadó, Budapest, 1974. ISBN 9631707466
Szendrei, J.: Geometria, Budapesti Tanítóképzo Foiskola, Budapest, 1999. - 92. - ISBN 0001687
Birkhoff, G. D.: Basic Geometry, Ralph Beatley. - NY : AMS Chelsea Publishing, 1959. - 294. - ISBN 0821821016
Vermes, I.: Geometria, Műegyetemi Kiadó, 2003. - 270 s. - ISBN 0147845

Reiman I.: Fejezetek az elemi geometriából, Nemzeti Tankönyvkiadó, 2002. - 206 s. - ISBN 963 9132 28 4.

Language, knowledge of which is necessary to complete a course:
Hungarian and Slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 127

A	B	C	D	E	FX
12.6	21.26	14.17	14.96	28.35	8.66

Teacher: Dr. habil. RNDr. Peter Csiba, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ GEO2/15	**Name:** Geometry 2

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 2 / 1 / 0 **For the study period:** 26 / 13 / 0
Methods of study: present

Number of credits: 5

Recommended semester/trimester of study: 4.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
For the successful completion of the course students are required to actively participate in seminars (10 points) and pass two written tests (worth 40 and 50 points). The minimum scores required to achieve for the individual grades are the following: 91 points for A, 81 points for B, 71 points for C, 61 points for D and 51 points for E.

Results of education:
The student knows the relations in the axiomatic structure of geometry, including the concept of vector space, affine space or Euclidean space. He knows and understands the abstraction of the n-dimensional space and is capable of interpreting calculations in the n-dimensional space. He is able to choose the appropriate coordinate system and solve analytical geometrical tasks in it.

Brief syllabus:
Vector and vector operations. Vector space, dimensional affine space. Affine coordinate system. Linear subspaces. Mutual positions of linear subspace. Divider relations. Barycentric coordinates. Ceva and Menelaus theorems. Scalar product of vectors, metric properties of vectors. Orthogonal and orthonormal coordinate systems. Euclidean space. Analytical determination of geometrical places (median perpendicular, bisector, circle, conic sections,...)

Literature:
Hajós, Gy.: Bevezetés a geometriába, Nemzeti Tankönyvkiadó, Budapest, 1999. 596s. ISBN 9631901165
Pogorelov, A.: Geometry, Moskva : MIR Publishers, 1987. - 311 s.
Kovács, Z.: Geometria, Kossuth Egyetemi Kiadó, Debrecen, 2002. 160s. ISBN 0013796
Reiman I.: Geometria és határterületei, Szalay Könyvkiadó és Kereskedőház Kft., 1999. - 446 s. - ISBN 963 237 012 0.
Skljarszkij, D. O., Csencov, N. N., Jaglom, I. M. .: Válogatott feladatok és tételek az elemi matematika köréből 2/1 : Geometria I. (Planimetria), Tankönyvkiadó, Budapest, 1972. - 261 s.
Baboss, Cs: Geometriai példatár 1., Koordináta-geometria, Nyugat-magyarországi Egyetem, 2010. dostupná na adrese: http://www.tankonyvtar.hu/hu/tartalom/tamop425/0027_GEM1/ch01.html

Language, knowledge of which is necessary to complete a course:

Hungarian, Slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 104

A	B	C	D	E	FX
8.65	18.27	12.5	19.23	31.73	9.62

Teacher: Dr. habil. RNDr. Peter Csiba, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ GEO3/15	**Name:** Geometry 3
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar / Practical **Recommended extent of course (in hours):** **Per week:** 2 / 1 / 0 **For the study period:** 26 / 13 / 0 **Methods of study:** present	
Number of credits: 5	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: For the successful completion of the course students are expected to hand in homework assignments (20 points), pass a written mid-year test (30 points) and take an exam at the end of the semester consisting of a written part (30 points) and an oral part (20 points). The minimum scores required to achieve for the individual grades are the following: 91 points for A, 81 points for B, 71 points for C, 61 points for D and 51 points for E.	
Results of education: The student knows the properties of geometric transformations in the topic area and is able to apply them when solving geometrical tasks.	
Brief syllabus: Congruency mappings, their types and properties, invariant elements. Composition of congruency mappings. Congruency mapping group. Using congruency mappings in resolving geometric drawing tasks. Similarity mappings. Central similarity. Similarity mapping group. Euclid's theorems. Affine transformations – axis affinity. Basic concepts of projective mappings. Solving drawing tasks using mappings.	
Literature: Hajós, Gy.: Bevezetés a geometriába, Nemzeti Tankönyvkiadó, Budapest, 1999. 596s. ISBN 9631901165. Coxeter, H.S.M..: A geometriák alapjai, Műszaki Könyvkiadó, Budapest, 1987. - 470 s. - ISBN 963 10 6843 9. Coxeter, H.S.M. - Greitzer, S.L.: Az újra felfedezett geometria, Gondolat, Budapest, 1977. - 288 s. - ISBN 963 280 512 7. Horvay, K.: Geometriai feladatok gyűjteménye I-II., Nemzeti Tankönyvkiadó, Budapest, 1993. ISBN 9631848868 Skljarszkij, D. O., Csencov, N. N., Jaglom, I. M. .: Válogatott feladatok és tételek az elemi matematika köréből 2/1 : Geometria I. (Planimetria), Tankönyvkiadó, Budapest, 1972. - 261 s.	
Language, knowledge of which is necessary to complete a course: Hungarian, Slovak	
Notes:	

Evaluation of subjects
Total number of evaluated students: 91

A	B	C	D	E	FX
14.29	16.48	29.67	17.58	18.68	3.3

Teacher: Dr. habil. RNDr. Peter Csiba, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ KOM/15	**Name:** Combinatorics

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 0 / 2 / 0 **For the study period:** 0 / 26 / 0
Methods of study: present

Number of credits: 2

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester will be held two written clearance by 50 points. Of the total of 100 points it is needed to obtain at least 91 points on the valuation A, for grade B is necessary to obtain 81 points, for grade C at least 71 points, for grade D at least 61 points and for grade E at least 51 points. For the student, who obtained less than 25 points in any written clearance, at the end of semester a final written clearance will be held with max. 100 points.

Results of education:
After successful completion of this course students will obtain knowledge of basic concepts of combinatorics and will be able to solve the tasks of combinatorial type. They will know the basic properties of Pascal's triangle and the relationship between binomial coefficients. At the same time they acquire basic knowledge of classical probability

Brief syllabus:
Basic concepts of combinatorics, combinations, variations, permutations. Binomial coefficients. Basic features of Pascal's triangle. Relations between binomial coefficients. Composed and problem task solving. Combinatorial geometry. Sorting and arrangement, arrangement models. Solving combinatorial problems of mathematical competitions. Basic concepts of classical probability. Discrete probability: uniform, binomial, polynomial, shuffle with repetition, shuffle without opakovania. Basic types of tasks.

Literature:
Bege Antal, Kása Zoltán.: Algoritmikus kombinatorika és számelmélet, 1. vyd. - Kolozsvár : Presa Universitara Clujeana, 2006. - 214 s. - ISBN 978-973-610-446-6.
Szendrei Ágnes.:Diszkrét matematika : Logika, Algebra, Kombinatorika, 3. vyd. - Szeged : POLYGON Jegyzettár, 1998. - 380 s.
Varga Tamás.: Játsszunk matematikát! 2. : Tér és sík, Valószínűség, Logika és kombinatorika - Budapest : Móra Könyvkiadó, 1976. - 120 s. - ISBN 963 11 0581 4.
Lovász László.:Kombinatorika : az általános és középiskolai matematika szakkörök számára. Budapest : Tankönyvkiadó, 1970. - 127 s. - ISBN 0012875.
Róka Sándor.: 2000 feladat az elemi matematika köréből. 6. vyd. - Budapest : Typotex Kiadó, 2010. - 378 s. - ISBN 978 963 279 163 0.

Language, knowledge of which is necessary to complete a course:
hungarian, slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 51

A	B	C	D	E	FX
5.88	3.92	17.65	19.61	37.25	15.69

Teacher: PaedDr. Tomás Visnyai, PhD., RNDr. Zuzana Árki, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ KSM/15	**Name:** Chapters from High School Mathematics

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 0 / 2 / 0 **For the study period:** 0 / 26 / 0
Methods of study: present

Number of credits: 2

Recommended semester/trimester of study: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:

Results of education:

Brief syllabus:

Literature:

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 58

A	B	C	D	E	FX
22.41	8.62	8.62	17.24	24.14	18.97

Teacher: Mgr. Miklós Vontszemű

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ LA/15	**Name:** Linear algebra

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 2 / 1 / 0 **For the study period:** 26 / 13 / 0
Methods of study: present

Number of credits: 5

Recommended semester/trimester of study: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester will be held two written clearance by 40 points and for the active work of student in WebWork-system can the student obtain 20 points. Of the total of 100 points it is needed to obtain at least 90 points on the valuation A, for grade B is necessary to obtain 80 points, for grade C at least 70 points, for grade D at least 60 points and for grade E at least 50 points. For the student, who obtained less than 20 points in any written clearance, at the end of semester a final written clearance will be held with max. 80 points. Then at the end of the semester also an oral exam will be held, where the student can get 100 points.

Results of education:
After successful completion of this course students will know and control the basic properties of algebraic structures and the basic concepts of linear algebra. In solving the tasks of daily practice are able to apply basic methods of linear algebra. Furthermore, students are able to solve tasks and the computer in the CAS system using MATLAB or other suitable free software.

Brief syllabus:
Algebraic structures.
Vector space. Subspace of a vector space.
Linear dependence and independence of vectors.
Dimension and base vector space.
Matrices, operations with matrices.
Rank of a matrix.
Linear mapping, matrix of the linear mapping.
Composition of linear mappings.
Matrix inversion.
Solving homogeneous and inhomogeneous systems of linear equations.
Determinant, basic features and applications.
Eigenvalues and eigenvectors.

Literature:
1. Katriňák, T. a kol.: Algebra a teoretická aritmetika 1. Bratislava : UK Bratislava, 1995, s. 351. ISBN 80-223-0986-9.

2. SZENDREI, J.: Algebra és számelmélet. Budapest : Nemzeti tankönyvkiadó, 2001, s. 475. ISBN 963 19 2401 7.
3. Fried, E.: Algebra I.: Elemi és lineáris algebra. Budapest : Nemzeti Tankönyvkiadó, 2000, s. 334. ISBN 963 19 11764.

Language, knowledge of which is necessary to complete a course:
hungarian, slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 113

A	B	C	D	E	FX
19.47	15.93	29.2	13.27	20.35	1.77

Teacher: prof. RNDr. János Tóth, PhD., Mgr. Szilárd Svitek

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ MA1/15	**Name:** Mathematical Analysis 1

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 2 / 1 / 0 **For the study period:** 26 / 13 / 0
Methods of study: present

Number of credits: 5

Recommended semester/trimester of study: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester, students write two tests, each worth 10 points. They can also obtain maximum 10 points for homework and presentations. The exam consists of a written and oral part, each worth maximum 35 points. After adding up the results, the minimum and maximum scores required to earn for the individual grades are the following: minimum 91 points for A, 81-90 points for B, 71-80 points for C, 61-70 points for D and 51-60 points for E.

Results of education:
The student is able to determine the properties of one-variable real functions related to limits, continuity and differential calculations. He has acquired the appropriate theoretical background of differential calculus. He understands the proofs of the most important theorems of the subject and can reproduce its main motives. Acquired key concepts and methods: limits of functions, methods of determining limits, continuity, differentials, derivative function, definition of extremes, L'Hospital's rule, Taylor polynomial.

Brief syllabus:
Limits and continuity of real functions of one variable. The transfer principle. Continuity at a point and set. Uniform continuity. Properties of functions continuous on the bounded, closed interval. Differential calculus for real functions of one variable. Differentiability and the basic rules of differential calculus. Derivatives of elementary functions. Higher order derivatives. Relation of the local properties of the derivative and the function. Mean value formulas. Examining functions and defining the function graph. L'Hospital's rule. Error estimates of the Taylor polynomial and the Taylor approximation.

Literature:
T. Neubrunn, J. Vencko: Matematická analýza 1, skriptum, Bratislava, UK. 1992. 190 s. ISBN 80-223-0055-1.
G.B. Thomas: Thomas-féle KALKULUS I. kötet - 3.,javított kiadás, Budapest, Typotex 2011
T. Szerényi: Analízis, Budapest, Tankönyvkiadó 1990. 560 s. ISBN 963 18 30009 8.
J. Urbán: Határértékszámítás, Budapest, Műszaki Könyvkiadó 2003. 452 s. ISBN 963 16 3072 2.
G. Denkinger, L. Gyurkó: Analízis: Gyakorlat, Budapest, Nemzeti Tankönyvkiadó 2001. 379s. ISBN 9631946134.

Language, knowledge of which is necessary to complete a course:
Hungarian

Notes:

Evaluation of subjects
Total number of evaluated students: 126

A	B	C	D	E	FX
36.51	11.11	9.52	7.94	29.37	5.56

Teacher: doc. RNDr. Ferdinánd Filip, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ MA2/15	**Name:** Mathematical Analysis 2

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 2 / 1 / 0 **For the study period:** 26 / 13 / 0
Methods of study: present

Number of credits: 5

Recommended semester/trimester of study: 4.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester, students write two tests, each worth 50 points. The minimum and maximum scores required to earn for the individual grades are the following: minimum 91 points for A, 81-90 points for B, 71-80 points for C, 61-70 points for D and 51-60 points for E. If students do not meet these requirements, they can take a written exam in the examination period, worth maximum 100 points.

Results of education:
The student knows and is able to apply the basic methods of integration. He gains practice in integrating rational fractional functions and learns the method of partial fraction decomposition. The student knows and is able to apply methods used with the integration of goniometric functions, irrational and transcendental functions. He understands the concept of the definite integral and knows the basic properties of the Riemann integral. He knows the Newton-Leibniz rule and has acquired practice in various application areas of the definite integral, such as area, volume and arc length calculation.

Brief syllabus:
ndefinite integral and primitive function, primitive function of elementary functions. Basic integration methods: per partes, substitution. Integration of rational functions, partial fraction decomposition. Integration of goniometric functions, integration of irrational and transcendental functions. The concept of the definite integral, Riemann integral, basic properties. Riemann integrable functions. The Newton-Leibniz rule. Applications of the definite integral in areas, volume and arc length calculations. Applying the definite integral. Improper integral.

Literature:
T. Neubrunn, J. Vencko: Matematická analýza 1, skriptum, Bratislava, UK. 1992. 190 s. ISBN 80-223-0055-1.
G.B. Thomas: Thomas-féle KALKULUS I. kötet - 3.,javított kiadás, Budapest, Typotex 2011
T. Szerényi: Analízis, Budapest, Tankönyvkiadó 1990. 560 s. ISBN 963 18 30009 8.
J. Urbán: Határértékszámítás, Budapest, Műszaki Könyvkiadó 2003. 452 s. ISBN 963 16 3072 2.
G. Denkinger, L. Gyurkó: Analízis: Gyakorlat, Budapest, Nemzeti Tankönyvkiadó 2001. 379s. ISBN 9631946134.

Language, knowledge of which is necessary to complete a course:
Hungarian, Slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 125

A	B	C	D	E	FX
11.2	17.6	21.6	22.4	22.4	4.8

Teacher: Dr. habil. Kálmán Csaba Liptai, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ MA3/15	**Name:** Mathematical Analysis 3
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar / Practical **Recommended extent of course (in hours):** **Per week:** 2 / 1 / 0 **For the study period:** 26 / 13 / 0 **Methods of study:** present	
Number of credits: 5	
Recommended semester/trimester of study: 6.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: During the semester, students write two tests, each worth 50 points. The minimum and maximum scores required to earn for the individual grades are the following: minimum 91 points for A, 81-90 points for B, 71-80 points for C, 61-70 points for D and 51-60 points for E. If students do not meet these requirements, they can take a written exam in the examination period, worth maximum 100 points.	
Results of education: The student is aware of the exact interpretation of convergent series. He knows and is able to apply the convergence criteria related to positive sign series. He is aware of the concept of function series and power series. He is able to determine the convergence radius and convergence range of power series, as well as identify the sum function of power series. He can define the Fourier coefficients of periodic functions.	
Brief syllabus: Numerical sequences. The convergence of infinite series. Positive sign series. Convergence criteria. Mixed and alternating sign series, absolute convergence. Operations with series. Function series, convergence range, uniform convergence. Power series. Convergence range of power series. Differentiation and integration of power series. Taylor series. Taylor series of noted functions. Fourier series. Defining the Fourier coefficients.	
Literature: T. Neubrunn, J. Vencko: Matematická analýza 1, skriptum, Bratislava, UK. 1992. 190 s. ISBN 80-223-0055-1. G.B. Thomas: Thomas-féle KALKULUS I. kötet - 3.,javított kiadás, Budapest, Typotex 2011 T. Szerényi: Analízis, Budapest, Tankönyvkiadó 1990. 560 s. ISBN 963 18 30009 8. J. Urbán: Határértékszámítás, Budapest, Műszaki Könyvkiadó 2003. 452 s. ISBN 963 16 3072 2. G. Denkinger, L. Gyurkó: Analízis: Gyakorlat, Budapest, Nemzeti Tankönyvkiadó 2001. 379s. ISBN 9631946134.	
Language, knowledge of which is necessary to complete a course:	
Notes:	

Evaluation of subjects
Total number of evaluated students: 97

A	B	C	D	E	FX
11.34	18.56	13.4	21.65	29.9	5.15

Teacher: doc. RNDr. Ferdinánd Filip, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ OBP/15	**Name:** Bachelor thesis and its defence
Types, range and methods of educational activities: **Form of study:** **Recommended extent of course (in hours):** **Per week: For the study period:** **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study:	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject:	
Results of education:	
Brief syllabus:	
Literature:	
Language, knowledge of which is necessary to complete a course:	
Notes:	

Evaluation of subjects

Total number of evaluated students: 9

A	B	C	D	E	FX
33.33	33.33	11.11	22.22	0.0	0.0

Teacher:	
Date of last update: 10.05.2022	
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.	

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ RAN/15	**Name:** Equations and Inequalities

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 0 / 2 / 0 **For the study period:** 0 / 26 / 0
Methods of study: present

Number of credits: 2

Recommended semester/trimester of study: 1.

Level of study: I.

Prerequisites:

Conditions for passing the subject:

Results of education:

Brief syllabus:

Literature:

Language, knowledge of which is necessary to complete a course:

Notes:

Evaluation of subjects
Total number of evaluated students: 50

A	B	C	D	E	FX
32.0	8.0	14.0	8.0	34.0	4.0

Teacher: prof. RNDr. János Tóth, PhD., Mgr. Szilárd Svitek

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ SG3/15	**Name:** Geometry Seminar 3

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 0 / 2 / 0 **For the study period:** 0 / 26 / 0
Methods of study: present

Number of credits: 2

Recommended semester/trimester of study: 5.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
For the successful completion of the course students are expected to actively participate in seminars (40 points), hand in homework assignments (30 points) and pass a written test at the end of the semester (30 points). The minimum scores required to achieve for the individual grades are the following: 91 points for A, 81 points for B, 71 points for C, 61 points for D and 51 points for E.

Results of education:
The student receives an introduction to projective geometry. He understands basic projective mappings and is familiar with the concept of the extended Euclidean plane as the model for projective geometry.

Brief syllabus:
Basic concepts of projective geometry. Elementary projectivities and their composition. Perspective mappings. The axiomatic construction of projective geometry. Perspective triangles. Harmonic relations. Duality Principle. The fundamental theorem of projective geometry. Pappos and Desargues theorem. Projective and perspective collineations, involution. Pole and polar line. Conic sections. Projective coordinates.

Literature:
Coxeter, H.S.M.: Projektív geometria, Gondolat Könyvkiadó, Budapest, 1986. - 179 s. - ISBN 963 281 678 1.
Hajós György: Bevezetés a geometriába, Tankönyvkiadó, 1960, 1971. ISBN 963 18 31736
Coxeter, H.S.M..: A geometriák alapjai, Műszaki Könyvkiadó, Budapest, 1987. - 470 s. - ISBN 963 10 6843 9.
Hoffmann M., Papp I.: Affin és projektív geometria, Eszterházy Károly Főiskola, Matematikai és Informatikai Intézet, Educatio Kht., 2011. Dostupné na adrese: http://www.tankonyvtar.hu/hu/tartalom/tamop425/0038_matematika_Hoffmann_Miklos_Papp_Ildiko-Affin_es_projektiv_geometria/index.html

Language, knowledge of which is necessary to complete a course:
Hungarian, Slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 28

A	B	C	D	E	FX
21.43	21.43	35.71	14.29	7.14	0.0

Teacher: Dr. habil. RNDr. Peter Csiba, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University

Name of the faculty: Faculty of Education

Code: KMI/Mdb/TEX/15	**Name:** Creation of Mathematical Documents

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 0 / 2 / 0 **For the study period:** 0 / 26 / 0
Methods of study: present

Number of credits: 2

Recommended semester/trimester of study: 4.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester, students create two seminar works, each worth 50 points. The minimum scores required to earn for the individual grades are the following: 90 points for A, 80 points for B, 70 points for C, 60 points for D and 50 points for E. Each seminar work is to achieve minimum 25 points.

Results of education:
The student has acquired the necessary knowledge to create text documents in the LaTeX system. He is able to create structured documents independently and can insert charts, images and formulas into the text. He is able to create presentations.

Brief syllabus:
Course outline:
Basic typographical rules. Document structure. Introduction to the use of LaTeX. Various LaTeX environments (images, charts, graphics). Working with mathematical formulas. Creating simple macros. Preparing presentations. Elaborating a given topic, producing an original technical text.

Literature:
1. WETTL, F. – MAYER, GY. – SZABÓ, P.: latex kézikönyv. Budapest : Panem könyvkiadó, 2004. ISBN 963 545 398 1.
2. RYBIČKA, J.: Latex pro začátečníky. Brno : Konvoj, 2003, s. 239. ISBN 80 7302 049 1.

Language, knowledge of which is necessary to complete a course:
Hungarian, Slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 254

A	B	C	D	E	FX
57.48	23.62	14.57	2.36	1.97	0.0

Teacher:

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ TGR/15	**Name:** Graph Theory

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 0 / 2 / 0 **For the study period:** 0 / 26 / 0
Methods of study: present

Number of credits: 2

Recommended semester/trimester of study: 6.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
During the semester will be held two written clearance by 50 points. Of the total of 100 points it is needed to obtain at least 91 points on the valuation A, for grade B is necessary to obtain 81 points, for grade C at least 71 points, for grade D at least 61 points and for grade E at least 51 points. If the student has obtained less than 25 points in any written clearance, than at the end of semester an oral exam will be held wit maximum 100 points.

Results of education:
The student will obtain an overview of the basic concepts of graph theory. He will be able to apply basic browsing graph algorithms, algorithms for finding minimal skeleton, the availability and continuity, and will be able to solve flow tasks, and apply them in the optimization problem solving. He obtain knowledge in theory of coloring graphs and find the minimum time required to perform a complex task.

Brief syllabus:
Basic concepts and results of graph theory, graph browsing algorithms, optimally lines in a graph, trees and skeletons, algorithms for finding minimal skeleton, the availability and continuity, solution of flow tasks, maximum flow, the cheapest rate, application of theory in optimization problems solving, the role of assignments, Eulerian graphs and the role of the Chinese postman, Hamiltonian graphs and the role of traveling salesman, mating and factorization, coloring graphs, planar graphs. Center and median, algorithms to search centers and medians, absolute centers and medians of the graph.

Literature:
Friedl, K., Recski, A., Simonyi, G.: Gráfelméleti feladatok. 1. vyd. Budapest : TYPOTEX, 2006. 300 s. ISBN 963 9664 01 4.
Hajnal, P.: Gráfelmélet. Szeged: Bolyai Intézet, 2003. 308 s. ISBN 0002465.
Hetyei, G.: Kombinatorika és gráfelmélet - Eger : MM Közoktatási és Pedagógustovábbképzo, 1988. - 84 s. - ISBN 9636734836

Language, knowledge of which is necessary to complete a course:
hungarian, slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 79

A	B	C	D	E	FX
25.32	13.92	30.38	17.72	8.86	3.8

Teacher: RNDr. Zuzana Árki, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ UTC/15	**Name:** Introduction to Number Theory

Types, range and methods of educational activities:
Form of study: Lecture / Seminar / Practical
Recommended extent of course (in hours):
Per week: 2 / 1 / 0 **For the study period:** 26 / 13 / 0
Methods of study: present

Number of credits: 4

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
The exam consists of a written test worth 80 points and an oral part worth 20 points. After adding up the results, the minimum and maximum scores required to earn for the individual grades are the following: minimum 91 points for A, 81-90 points for B, 71-80 points for C, 61-70 points for D and 51-60 points for E.

Results of education:
The student knows and is able to apply the divisibility rules for integers. He is able to determine the greatest common divisor of two numbers using the Euclidean algorithm. He has acquired the basic knowledge regarding the distribution of prime numbers. He knows the concept of congruency and the related rules, and is able to solve a first-degree congruence. He can provide forms of numbers in any numerical system. He knows and is able to apply Euler's theorem.

Brief syllabus:
Divisibility of integers, greatest common divisor, least common multiple. Euclidean algorithm. Prime numbers, resolution into multiplied prime numbers. Distribution of prime numbers. Congruence. Fermat's and Euler's theorem. Lagrange theorem. Number systems and divisibility rules.

Literature:
Šalát a kol.: Algebra a teoretická aritmetika 2, Bratislava, Alfa 1986
Znám: Teória čísel, Bratislava : Vydavateľstvo Technickej a Ekonomickej Literatúry, 2. vyd. 1986. 207 s.
László, B. - Tóth, J.: Bevezetés a számelméletbe, Lilium Aurum, 1999. 125s.
Erdős, P. - Surányi, J.: Válogatott fejezetek a számelméletből, Polygon, Szeged, 2004. 327 s.
Freud, R. a kol.: Számelmélet, Nemzeti Tankönyvkiadó, Budapest, 2000. 740s. ISBN 9631907848
Bege, A. a kol.: Számelméleti feladatgyujtemény, Scientia Kiadó, Kolozsvár, 2002. 153s. ISBN 0991493

Language, knowledge of which is necessary to complete a course:
Hungarian, Slovak

Notes:

Evaluation of subjects
Total number of evaluated students: 117

A	B	C	D	E	FX
19.66	20.51	17.95	20.51	21.37	0.0

Teacher: prof. RNDr. János Tóth, PhD.

Date of last update: 10.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ ZM/15	**Name:** Basics of Mathematics
Types, range and methods of educational activities: **Form of study:** Lecture / Seminar / Practical **Recommended extent of course (in hours):** **Per week:** 1 / 2 / 0 **For the study period:** 13 / 26 / 0 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 1.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Evaluation is based on two tests written during the semester, each worth 50 points. The minimum scores required to earn for the individual grades are the following: 91 points for A, 81 points for B, 71 points for C, 61 points for D and 51 points for E.	
Results of education: Students are introduced to the basic concepts of different mathematical areas while deepening the acquired knowledge so it assists them in their further studies.	
Brief syllabus: Propositions – basic concepts, operations with propositions. Judgment calculator – truth value. Sets – basic concepts, set operations, Cartesian product. Number sets. The basics of number theory – number systems, divisibility, divisibility rules. The axiomatic composition of mathematics. Proofs. Relations, attributes, sorting and equivalence relations. Explicit, implicit and parametric setting of functions. Cartesian and polar coordinate system.	
Literature: Thiele, R.: Matematické dukazy, SNTL, Praha, 1986. 160s Reiman, I.: Matematika, Typotex, Budapest, 2011. 609 s. ISBN 978 963 279 300 9. Pólya, Gy.: A problémamegoldás iskolája. I. kötet, Budapest: Tankönyvkiadó, 1979. 228 s. ISBN 963 17 3844 2 Pólya, Gy.: A gondolkodás iskolája, Budapest : Akkord, 2000. 226 s. ISBN 963 7803 75 0 Lakatos I.: Bizonyitások és cáfolatok, Typotex Elektronikus Kiadó Kft., 1998. 254s. ISBN 9639132128	
Language, knowledge of which is necessary to complete a course: Hungarian, Slovak	
Notes:	
Evaluation of subjects Total number of evaluated students: 183	

A	B	C	D	E	FX
7.65	12.02	20.22	26.78	21.31	12.02
Teacher: doc. RNDr. Ferdinánd Filip, PhD.					
Date of last update: 10.05.2022					
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.					

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KMI/Mdb/ŠSBc/15	**Name:** Mathematics
Types, range and methods of educational activities: **Form of study:** **Recommended extent of course (in hours):** **Per week: For the study period:** **Methods of study:** present	
Number of credits: 2	
Recommended semester/trimester of study:	
Level of study: I.	
Prerequisites: KMI/Mdb/FAP/15 and KMI/Mdb/ZM/15 and KMI/Mdb/LA/15 and KMI/Mdb/MA1/15 and KMI/Mdb/GEO1/15 and KMI/Mdb/UTC/15 and KMI/Mdb/GEO2/15 and KMI/Mdb/MA2/15 and KMI/Mdb/ALG1/15 and KMI/Mdb/ALG2/15 and KMI/Mdb/GEO3/15 and KMI/Mdb/MA3/15	
Conditions for passing the subject:	
Results of education:	
Brief syllabus:	
Literature:	
Language, knowledge of which is necessary to complete a course:	
Notes:	

Evaluation of subjects

Total number of evaluated students: 27

A	B	C	D	E	FX
11.11	33.33	14.81	25.93	11.11	3.7

Teacher:	
Date of last update: 10.05.2022	
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.	

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/PPX/EDU/20	**Name:** Pedagogické praktikum - Používanie aplikácie EduPage
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 2	
Recommended semester/trimester of study: 4.	
Level of study: I., II.	
Prerequisites:	
Conditions for passing the subject:	
Results of education:	
Brief syllabus:	
Literature:	
Language, knowledge of which is necessary to complete a course:	
Notes:	
Evaluation of subjects Total number of evaluated students: 43	

a	n
97.67	2.33

Teacher:
Date of last update: 02.05.2022
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ ANA/15	**Name:** Preparation and Analysis of listen

Types, range and methods of educational activities:
Form of study: Seminar
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 5.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Studens will attend 5-5 hours of each approbation at training schools. The course will be passed if 4 “listening reports” will be submitted (2 of each approbation).

Results of education:
During the pedagogical training students will follow and analyze the education process, they will learn how to apply the theoretical knowledge and the methodology of teaching and will become professionals being able to provide teaching, being able to record and analyze the realities of the profession. The students will be able for reflexion and self-reflexion.

Brief syllabus:
Attending training school classes. Preparing the attendance.Definition of goals, methodology and specialization.Self-observation of the educational process, didactical methods, pedagogical communication, psychological aspects. End phase of the attendance. Analyzation of records, reflexing and interpreting of the observed educational issues.

Literature:
Albert Sándor: Általános didaktika. Komárno : Selye János Egyetem, 2006. 226. ISBN 8089234070
Barabási Tünde: A tanítói tudás összetevői és fejlesztésük : Az elmélet és gyakorlat integrációja a magyarországi és romániai magyar tanítóképzési rendszerben. 1. vyd. Kolozsvár : Kolozsvári Egyetemi Kiadó, 2008. 151 s. ISBN 9789736107030
Cangelosi S. James. Strategie řízení třídy : Jak získat a udržet spolupráci žáků při výuce. 2. vyd. Praha : Portál, 1996. 300 s. ISBN 8071780839
Falus Iván: Didaktika. Budapest : Nemzeti Tankönyvkiadó, 2003. 552 s. ISBN 9631952967
Falus Iván. A tanárrá válás folyamata. - 1. vyd. - Budapest : Gondolat, 2007. - 245 s. - ISBN 978 963 9610 97 2
Falus Iván et all. A pedagógusok pedagógiája. - Budapest : Nemzeti Tankönyvkiadó, 2001. - 355 s. - ISBN 963191805x.
Kalhous Zdeněk: Školní didaktika. 2. vyd. Praha : Portál, 2009. 448 s. ISBN 9788073675714
Kovátsné-Németh Mária. Fenntarthatóság, pedagógia, kutatás. - 1. vyd. - Győr : Nyugat-Magyarországi Egyetem Apáczai Csere János Kar, 2007. 227 s. ISBN 9789639364851

Kosová Beata. Vysokoškolské vzdelávanie učiteľov : Vývoj, analýza, perspektívy. - 1. vyd. - Banská Bystrica : Pedagogická fakulta Univerzity Mateja Bela, 2012. 143 s. ISBN 9788055703534
Nagy József. Kompetencia alapú kritériumorientált PEDAGÓGIA. 1. vyd. Szeged : Mozaik Kiadó, 2007. 383 s. ISBN 978 963 697 541 8
Roeders Paul, Gefferth Éva. A hatékony tanulás titka : A hatékony tanítás és tanulás dinamikája. 1. vyd. : Trefort Kiadó, 2007. 215 s. ISBN 9789634464532
Petlák, Erich. Všeobecná didaktika. 1. vyd. : IRIS, 2004. 316 s. ISBN 8089018645
Pukánszky Béla. Iskola és pedagógusképzés. 1. vyd. Budapest : Gondolat Kiadó, 2014. 182 s. ISBN 9789636932282
Pasch Marvin, Gardner Trevor et all. Od vzdělávacího programu k vyučovací hodině : Jak pracovat s kurikulem. 1. vyd. Praha : Portál, s.r.o., 1998. 416 s. ISBN 8073670542

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language

Notes:

Evaluation of subjects
Total number of evaluated students: 343

a	n
99.71	0.29

Teacher: Dr. habil. PaedDr. Kinga Horváth, PhD., PaedDr. Beáta Kiss

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ APK/15	**Name:** Alternative pedagogical concepts

Types, range and methods of educational activities:
Form of study: Lecture
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 3

Recommended semester/trimester of study: 6.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
One written test during a term for 50 points, another 50 points could be earned for continuous in-class activities. At least 50 points – 50% of all possible points - has to be earned to pass the class.
Evolution:
A mark - 90-100%; B mark 80-89%; C mark 70-79%; D mark 60-69%, E mark 50-59%.

Results of education:
The student will learn the existing alternative trends and ways of development in the field of pedagogyboth at home and abroad. This way the student will be able to identify, analyze, demonstrate and evaluate those alternative trends.

Brief syllabus:
The establishment of alternative schools in the first half of the 20th century (Waldorf, Jena-plan, Dalton, Freinet, Montessori). Establishment of alternative schools in the second half of the 20th century (client-centered approach according to Rogers, ITV, Zsolnay school, open school, project education, global education, etc.). Modeling of the reform school – outlining the prognosis.

Literature:
Németh András. A reformpedagógia múltja és jelene . - Budapest : Nemzeti Tankönyvkiadó, 2003. - 167 s. - ISBN 963 19 2190 5. Bodoni Ágnes. Reformpedagógia : Pedagógusi kompetenciák fejlesztése reform- és alternatív pedagógiai módszerek segítségével. - 1. vyd. - Kolozsvár : Ábel Kiadó, 2012. - 127 s. - ISBN 978-973-114-150-3. Németh András, Ehrenhard Skiera. Reformpedagógia és az iskola reformja. - 1. vyd. - Budapest : Nemzeti Tankönyv, 1999. - 345 s. - ISBN 963 19 0168 8. Németh András, Pirka Veronika. Az életreform és reformpedagógia-recepciós és intézményesülési folyamatok a 20. század első felében. - 1. vyd. - Budapest : Gondolat Kiadó, 2013. - 409 s. - ISBN 978 963 693 471 2. Kovátsné-Németh Mária. Reformpedagógiai koncepciók, alternatív megoldások. - Komárno : Selye János Egyetem, 2007. - 330 s. - ISBN 9788089234349. Zelina Miron. Alternatívne školstvo : alternatívne školy, alternatívna pedagogika, alternatívne pedagogické koncepcie a smery. - 1. vyd. - Bratislava : IRIS, 2000. - 257 s. - ISBN 80-88778-98-0. Prucha Jan. Alternativní školy a inovace ve vzdilávání. Portál, 2004. - 144 s. - ISBN 8071789771. Pukánszky Béla. Iskola és pedagógusképzés. - 1. vyd. - Budapest : Gondolat Kiadó, 2014. - 182 s. - ISBN 9789636932282.

Pukánszky Béla. Két évszázad gyermekei : A tizenkilencedik-huszadik század gyermekkorának története. - 1. vyd. - Budapest : Eötvös József Könyvkiadó, 2003. - 308 s. - ISBN 963 9316 65 2.

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 463

A	B	C	D	E	FX
53.78	25.49	15.12	4.97	0.65	0.0

Teacher: prof. Dr. Béla István Pukánszky, DSc.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ BDZ/15	**Name:** Biology child and school health

Types, range and methods of educational activities:
Form of study: Lecture
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 1.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test. Condition for successful completion of this course is to obtain at least 50% of the maximum possible assessment of the subject. Evaluation: A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%.

Results of education:
Students acquire basic knowledge about the human body - body composition, human ontogenesis, developmental specificities of organ systems and the basics of school hygiene.

Brief syllabus:
Morphological and functional characteristics of the human body and physical ontogeny of human, which is analyze from prenatal period to adulthood with an emphasis on teen age and young adulthood. Developmental specificities of the different organ systems. School hygiene.

Literature:
Dylevský, I.: Somatológia. Bratislava : OSVETA, 2000. - 439 s. - ISBN 80-8063-127-1
Feneis, H.: Anatomický obrazový slovník. Stuttgart : Georg Thieme Verlag, 1993. - 455s. - ISBN 80 7169 197 6
Mader, S. S.: Human biology. Wm. C. Brown Publishers, USA, Third edition 1992. 500 s. - ISBN 0-697-12333-2
McCracken, T.O.: Háromdimenziós anatómiai atlasz. Budapest : Scolar Kiadó, 2000. - 237 s. - ISBN 978-963-9193-99-4
Nagy, M.: Humánbiológia, Lilium Aurum, Dunaszerdahely, 2006, ISBN 80-8062-283-3.
Netter, F. H.: Humán anatómiai atlasz. Budapest : Medicina Könyvkiadó, 2004. - 562 s. ISBN 963 242 848 X
POSPÍŠIL, M.: Biológia človeka I. Prírodovedecká fakulta UK Praha, 1998, 340s. ISBN 80-223-1579-6
Szentágothai, J.: Funkcionális anatómia I.-III. Budapest : Medicina Könyvkiadó, 2006. - 710, 600, 800. - ISBN 963 242 565 0
Šmarda, J. a kol.: Biologie pro psychology a pedagogy. Portál, Praha, 2004.

Language, knowledge of which is necessary to complete a course:
Slovak or Hungarian

Notes:

Evaluation of subjects
Total number of evaluated students: 386

A	B	C	D	E	FX
10.88	14.51	24.09	19.69	25.39	5.44

Teacher: Dr. habil. PaedDr. Melinda Nagy, PhD., Dr. habil. Csaba Miklós Szinetár, CSc.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ DID/15	**Name:** General didactics

Types, range and methods of educational activities:
Form of study: Lecture / Seminar
Recommended extent of course (in hours):
Per week: 1 / 1 **For the study period:** 13 / 13
Methods of study: present

Number of credits: 3

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test. Condition for successful completion of this course is to obtain at least 50% of the maximum possible assessment of the subject. Evaluation: A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%.

Results of education:
The students will get the basic didactical knowledges – subject and methodological profile of the didactics, extension of knowledges, skills of teaching professionals, planning and organizational skills, controls and evaluation.

Brief syllabus:
Historical and current status of the didactics.Modernization of the teaching material.Basic educational documents.Processual aspects of the education.Principles of the education.Tools for education.Categories of the education goals.Teaching styles.Differentiation.Evaluation.Theoretical models and conceptual forms of education and evaluation.

Literature:
Albert Sándor. Általános didaktika. - Komárno : Selye János Egyetem, 2006. - 226. - ISBN 80-89234-07-0.
Albert Sándor. Didaktika. Lilium Aurum, 2005. - 250 s. - ISBN 8080622523.
Falus Iván. Didaktika. - Budapest : Nemzeti Tankönyvkiadó, 2003. - 552 s. - ISBN 9631952967.
Nagy Sándor. Didaktika. - Budapest : Tankönyvkiadó, 1969. - 239 s. - ISBN 0012790.
Kalhous Zdeněk. Školní didaktika. - 2. vyd. - Praha : Portál, 2009. - 448 s. - ISBN 978-80-7367-571-4.
Petlák, Erich. Všeobecná didaktika. - 1. vyd. : IRIS, 2004. - 316 s. - ISBN 80-89018-64-5.
Komenský Ján Ámos. Výber myšlienok z diela Veľká didaktika. - Prešov : Metodické centrum Prešov, 1992. - 23 s. - ISBN 8085410273.
Barabási Tünde. A tanítói tudás összetevői és fejlesztésük : Az elmélet és gyakorlat integrációja a magyarországi és romániai magyar tanítóképzési rendszerben. - 1. vyd. - Kolozsvár : Kolozsvári Egyetemi Kiadó, 2008. - 151 s. - ISBN 978-973-610-703-0.
Nagy József. Kompetencia alapú kritériumorientált PEDAGÓGIA. - 1. vyd. - Szeged : Mozaik Kiadó, 2007. - 383 s. - ISBN 978 963 697 541 8.

Falus Iván et all. A pedagógusok pedagógiája. - Budapest : Nemzeti Tankönyvkiadó, 2001. - 355 s. - ISBN 963191805x.
Falus Iván. A tanárrá válás folyamata. - 1. vyd. - Budapest : Gondolat, 2007. - 245 s. - ISBN 978 963 9610 97 2.
Kovátsné-Németh Mária. Fenntarthatóság, pedagógia, kutatás. - 1. vyd. - Győr : Nyugat-Magyarországi Egyetem Apáczai Csere János Kar, 2007. - 227 s. - ISBN 978-963-9364-85-1.
Roeders Paul, Gefferth Éva. A hatékony tanulás titka : A hatékony tanítás és tanulás dinamikája. - 1. vyd. : Trefort Kiadó, 2007. - 215 s. - ISBN 978-963-446-453-2.
Kosová Beata. Vysokoškolské vzdelávanie učiteľov : Vývoj, analýza, perspektívy. - 1. vyd. - Banská Bystrica : Pedagogická fakulta Univerzity Mateja Bela, 2012. - 143 s. - ISBN 978-80-557-0353-4.
Cangelosi S. James. Strategie řízení třídy : Jak získat a udržet spolupráci žáků při výuce. - 2. vyd. - Praha : Portál, 1996. - 300 s. - ISBN 80-7178-083-9.
Pasch Marvin, Gardner Trevor et all. Od vzdělávacího programu k vyučovací hodině : Jak pracovat s kurikulem. - 1. vyd. - Praha : Portál, s.r.o., 1998. - 416 s. - ISBN 80-7367-054-2.

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 1218

A	B	C	D	E	FX
11.66	17.57	16.58	17.32	26.35	10.51

Teacher: prof. Dr. Péter Tóth, PhD., Dr. habil. PaedDr. Kinga Horváth, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ FVV/15	**Name:** Philosophy of Education
Types, range and methods of educational activities: **Form of study:** Lecture **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 3	
Recommended semester/trimester of study: 4.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: One written test during a term for 50 points, another 50 points could be earned for continuous in-class activities. At least 50 points – 50% of all possible points - has to be earned to pass the class. A mark - 90-100%; B mark 80-89%; C mark 70-79%; D mark 60-69%, E mark 50-59%.	
Results of education: The student will receive an overview of the scope of current educational theory. The student will be introduced to current problems,up-to-date theories and knowledge, so that the student will be able to recognize the theoretical concepts in the educational practice. The student will be able to find the relationship between the trends of educational philosophy, education theories and education concepts. The student will be able to evaluate the educational phenomena based on philosophy, ideology and theory.	
Brief syllabus: Basics of perenialism, essencialism, progressivism, behaviorism, and existencialism. Educational theory: intellectual, personalistic, social, academic, cognitive-psychological, social-cognitive, technological.Educational concepts: problem solving, project education, cooperative education, mastery learning, global education, and constructivism.	
Literature: Angelusz Erzsébet. Filozófia, antropológia, nevelés. - Budapest : Akadémiai Kiadó, 1984. - 104 s. - ISBN 963 05 3404 5. Halasy-Nagy József. A filozófia. - Budapest : Pantheon Kiadás, 1991. - 408 s. - ISBN 963 05 5929 3. Mészáros András. A felső-magyarországi iskolai filozófia lexikona. - Pozsony : Kalligram, 2003. - 288 s. - ISBN 8071495409. Pukánszky Béla. Iskola és pedagógusképzés. - 1. vyd. - Budapest : Gondolat Kiadó, 2014. - 182 s. - ISBN 9789636932282. Pukánszky Béla. A gyermekkor története. - 1. vyd. - Budapest : Műszaki Könyvkiadó, 2001. - 201s. - ISBN 963 16 2782 9. Pukánszky Béla. Két évszázad gyermekei : A tizenkilencedik-huszadik század gyermekkorának története. - 1. vyd. - Budapest : Eötvös József Könyvkiadó, 2003. - 308 s. - ISBN 963 9316 65 2.	

Pukánszky Béla. Pedagógiai eszmetörténet. - 1. vyd. - Budapest : Gondolat Kiadó, 2013. - 168 s. - ISBN 978-963-693-228-2.
Vajda Zsuzsanna, Kósa Éva. Neveléslélektan. - 1. vyd. - Budapest : Osiris Kiadó, 2005. - 564 s. - ISBN 963 389 728 9. - ISSN 1218-9855.

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language

Notes:

Evaluation of subjects
Total number of evaluated students: 1009

A	B	C	D	E	FX
27.75	28.84	27.45	11.79	3.77	0.4

Teacher: prof. Dr. András Németh, DSc.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ IKT/15	**Name:** ICT-based

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Making 2 projects during the semester , each for 25 points and the final presentation of the methodology of a selected lesson for 50 points. In order to pass the course the student needs to collect at least 50% of the maximum points. The scale of evaluation is the following: A – 90 -100%, B – 80 -89%, C – 70 -79%, D – 60 - 69%, E – 50 -59%.

Results of education:
By the completion of the course, students deepen their professional competence in the field of information and communication technologies. They will be able to locate, evaluate and use information so that they become autonomous, independent and lifelong learners. They will have the ability to locate, evaluate, use and communicate information in all their various forms, such as the integration of books, computer, the media and technology, ethics, critical thinking, information and communication skills.

Brief syllabus:
• Basic concepts of work with computers (objects, files, types, maps, addresses) • Basics of Word (copy protection, basic items, formatting) • Working with pictures, WordArt, ClipArt - special text effects • Basics of graphical environment Paint (copy protection, basic controls) • Introduction to digital technology, principles of operation, working with the media • the use of digital and multimedia devices in the educational process • Creating lessons from selected objects, integrated learning, practical use of certain information for the preparation of materialsin teaching. • The Internet - Definitions • Browser, criteria for finding, downloading images and texts from the Internet • E-mail: e-mail, creating your own e-mail addresses, basic work, connecting documents

Literature:
Baka Magdolna, Koczka Ferenc: Informatika - szövegszerkesztés, Eger : EKTF Líceum Kiadó, 1997. 170 s.
Csórián Sándor: Információ és kommunikáció. Budapest : Kossuth Könyvkiadó, 2003. 119. ISBN 9630944103
Czifra Juraj at all.: Informačné a komunikačné technológie v praxi I. Komárno : Selye János Egyetem, 2007. 450 s. ISBN 9788089234417
Szôkôl István: Modulárny systém výučby informatiky. Komárno : UJS, 2010. 100s. ISBN 9788089234974

Stoffa Veronika: Az informatika alapjai I. Apáczai közalapítvány, 2007. 268 s. ISBN 9788089234295
Wyatt L. Allen: Az internet alapjai. Budapest : Kossuth Könyvkiadó, 1996. 352. ISBN 9630938383x

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 523

A	B	C	D	E	FX
54.88	20.84	12.43	5.16	2.87	3.82

Teacher: Mgr. Dávid Paksi

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ INV/15	**Name:** intercultural education
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 1.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: One written test during a term for 50 points, another 50 points could be earned for continuous in-class activities (presentation of casuistics). At least 50 points – 50% of all possible points - has to be earned to pass the class. A mark - 90-100%; B mark 80-89%; C mark 70-79%; D mark 60-69%, E mark 50-59%.	
Results of education: By completing the course students will gain knowledge on the essence of ethnic processes and ethnic minorities of Slovakia, furthermore gain skills in practical applying acquired theories in educational process.	
Brief syllabus: Basic terminology: ethnicity, nation, nationality, ethnic minorities, multiculturalism, inter-cultural competence, atc. Inter-ethnic and inter-cultural relations. Ethnic symbols, stereotypes. Ethnic history of Slovakia. History of ethnic minorities in Slovakia, with particular regard to Hungarians. Concrete examples on Hungarian-Slovak, Hungarian-German, Hungarian-Rusin inter-ethnic relationships. The problem of the Rome minority in Slovakia and Central Europe. Practical opportunities of evolving inter-cultural competencies (meeting other cultures, respecting otherness, tolerance).	
Literature: Ács Zoltán: Nemzetiségek a történelmi Magyarországon. Budapest: Kossuth Könyvkiadó 1986. Botík, Ján: Chorváti na Slovensku. Bratislava: Slovenské národné múzeum 1996. Forray R. Katalin szerk.: Ismeretek a romológia alapképzési szakhoz. Pécs: Pécsi Tudományegyetem 2006. http://mek.oszk.hu/04800/04867/04867.pdf Gabal, Ivan: Etnické menšiny ve střední Evrope. Praha 1999. Gallová Kriglerová, Eva–Kadlečíková, Jana–Lajčáková Jarmila: Migranti. Multikulturalizmus a kultúrna integrácia migrantov na Slovensku. Nový pohľad na staré problémy. Bratislava: CVEK 2009. Gecse Annabella: Az etnikai és társadalmi átrendeződés folyamata egy gömöri falu 20. századi életében. Komárom–Somorja: Fórum Kisebbségkutató Intézet 2007 /Interethnica10./ Gyurgyík László: A szlovákiai magyarság népesedési folyamatai a 20. században (1918-tól 2001-ig). Komárom: Selye János Egyetem Tanárképző Kara 2013 / Monographiae Comaromienses 10./ Horváthová, Margaréta: Nemci na Slovensku. Etnokultúrne tradície z aspektu osídlenia, remesiel a odievania. Komárno–Dunajská Streda: Fórum inštitút–	

Spoločenskovedný ústav–Vydavateľstvo Lilium Aurum 2002 /Interethnica 4./ L. Juhász Ilona: „Fába róva, földbe ütve…" A kopjafák/emlékoszlopok mint a szimbolikus térfoglalás eszközei a szlovákiai magyaroknál. Komárom–Dunaszerdahely: Fórum Kisebbségkutató Intézet–Lilium Aurum Könyvkiadó 2005 /Interethnica 8./ Kiss Gabriella: Multikulturalizmus és oktatás. Debrecen: Kossuth Egyetemi Kiadó 2001. Liszka József: Bevezetés a néprajzba. A magyar néprajz/ európai etnológia alapjai. Dunaszerdahely: Lilium Aurum 2006. Liszka József szerk.: Interetnikus és interkulturális kapcsolatok Dél-Szlovákiában. Komárom: Selye János Egyetem Tanárképző Kara 2009 /Monographiae Comaromienses 1./ Liszka József: Populáris kultúra. Somorja: Fórum Kisebbségkutató Intézet 2010 /Magyarok Szlovákiában 6./ Magyar néprajzi lexikon 1–5. Budapest: Akadémiai Kiadó 1977–1982. Paládi-Kovács Attila szerk.: A nemzetiségek néprajzi felfedezői. Budapest: Akadémiai Kiadó 2006. Sopoliga, Miroslav: Ukrajinci na Slovensku. Etnokultúrne tradície z aspektu osídlenia, ľudovej architektúry a bývania. Komárno–Dunajská Streda: Fórum inštitút – Spoločenskovedný ústav–Vydavateľstvo Lilium Aurum 2002 /Interethnica 2./ Tradičná ľudová kultúra Slovenska slovom a obrazom. Elektronická encyklopédia (http://www.ludovakultura.sk/index.php?id=11) Vajda Barnabás szerk.: Államhatár és identitás–Komárom/Komárno. Komárom: Selye János Egyetem Tanárképző Kara 2011 /Monographiae Comaromienses 3./ Varjú Katalin: „Pénteken délig nyitva van az ég!" Somorja–Dunaszerdahely: Fórum Kisebbségkutató Intézet–Lilium Aurum Könyvkiadó 2003 / Interethnica 6.

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 404

A	B	C	D	E	FX
56.44	19.55	12.87	5.2	4.95	0.99

Teacher: PaedDr. Terézia Strédl, PhD., István Jobbágy, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ IPE/15	**Name:** Inclusive Education

Types, range and methods of educational activities:
Form of study: Seminar
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
One written test during a term for 50 points, another 50 points could be earned for continuous in-class activities (presentation of casuistics). At least 50 points – 50% of all possible points - has to be earned to pass the class. A mark - 90-100%; B mark 80-89%; C mark 70-79%; D mark 60-69%, E mark 50-59%.

Results of education:
Studentsbecomescompetentindifferentialapproachtostudents/pupilswithspecialeducationneeds and alsowill be abletoidentifytheproblems and difficulties of learning. The studentswillgetwide and complexpictureaboutthework of specialeducationteacher and schoolpsychologist, aboutstimulationprogrammes, therapies and aboutthesupportivecaregenerally.

Brief syllabus:
Mission of thespecialeducation – education of disabledpupils. Sensorydisabledchildren and theireducation. Physicallydisabledchildren and theireducation. Disabilitiesoncommunicationskills of children. Emotionallydisturbedchildren and possibilitieswhitintheireducation. Segregation, integration and inclusion of disabledchildren. Specialeducationsystem and specialeducationconsultationservices. Therapies, corrections and reeducationastoolsfortheoptimalisation of theeducationprocessforchildrenwithspecificevelopmentallearningdisorders.

Literature:
Gordosné Szabó Anna: Bevezetés a gyógypedagógiába. 7. vyd. Budapest : Nemzeti Tankönyvkiadó. 2000. 116 s. Gordosné Szabó Anna: Gyógyító pedagógia = Nevelés és terápia. 1. vyd. Budapest : Medicina Könyvkiadó, 2004. 587 s. ISBN 963 242 757 2 Illyés Gyuláné: Gyógypedagógiai pszichológia. Budapest : Akadémiai Kiadó, 1971. 465 s. ISBN 0007635 Illyés Gyuláné: Špeciálnopedagogická psychológia. 1. vyd. Bratislava : Slovenské Pedagogické Nakladateľstvo. 1978. 589 s. Mesterházi Zsuzsa: A nehezen tanuló gyermekek iskolai nevelése. 1. vyd. : Eötvös Lóránd Tudományegyetem Bárczi Gusztáv Gyógypedagógiai Kar. 1998. 348 s. ISBN 9637151126 Strédl Terézia: Inkluzív pedagógia avagy a gyógypedagógiáról másképp. 1. vyd. Komárno : Univerzita J. Selyeho. 2013. 148 s. ISBN 9788081220890 Vašek Štefan: Pedagogika viacnásobne postihnutých. 1. vyd. Bratislava : Sapientia. 1999. 296 s. ISBN

8096718045 Vašek Štefan: Špeciálno pedagogická diagnostika. 4. vyd. : Sapientia s.r.o, 2004.168 s. ISBN 8096911201

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 1002

A	B	C	D	E	FX
28.74	24.35	28.74	13.37	3.89	0.9

Teacher: Mgr. Anita Tóth-Bakos, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ LAD/15	**Name:** School legislation and documentation
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 2	
Recommended semester/trimester of study: 4.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Final test. Condition for successful completion of this course is to obtain at least 50% of the maximum possible assessment of the subject. Evaluation: A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%	
Results of education: The student will be able to: - list the number, title and content of legislation concerning education - describe public education management and its level, - list concretely the changes in public education and interpret their legal consequences, - understand the typical features of public education management and local government principles in education and school management, - analyze the relevant regulations, -classify and categorize the relevant regulations, - evaluate theprocesses in public education.	
Brief syllabus: Sorting legal and pedagogical and organizational standards applied in education. The interpretation of the Constitution in terms of its application in the field of education, training and education. Government Program Declaration after November 1989 in terms of orientation to school education. Projects oriented towards the long term development of education in Slovakia. The process of creating laws, decrees and other documents forming the legal framework of education and training.The Education Act and the ensuing regulations. Act on school facilities and the subsequent regulations. The Higher Education Act and the ensuing regulations.Legal solutions of the qualification and further training of teaching staff of schools.The questions of managing "non-state" schools and school facilities.	
Literature: The Constitution of the Slovak Republic 245/2008 The Law on Upbringing and Education (School Act) and on amendments to certain laws Other relevant laws and regulations.	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak Language	
Notes:	
Evaluation of subjects	

Total number of evaluated students: 809

A	B	C	D	E	FX
61.19	22.0	9.52	3.83	3.46	0.0

Teacher:

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ MPE/15	**Name:** Multimedia education
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Making a presentation, wheres lides showing thetheoretical and practicalskills of multimediaeducation, (max 50. points) A – 90 -100%, B – 80 -89%, C – 70 -79%, D – 60 - 69%, E – 50 -59%.	
Results of education: The student learns touse themultimedia mediamethods, tools in the pedagogicalpractice. And also developcriticalthinking skills and information.	
Brief syllabus: Communicationtypes, forms. background of stereotypes and conventionsof mobile screencontents. Photo texts, basiccodes, text writing and readingon mobile. The socialfunction of themedia. The mediacategorization. The mediausagehabits, modes, language. The theoretical and practicalknowledge of mediapedagogy. International practice. The computer basedlearning. Electronicmedia, video, and computer use. Criticalthinking: themassmedia and communication, manipulation, informationsociety. The analysis of themutimediainteractions.	
Literature: Komenczi Bertalan: Információ és társadalom. Eger : EKF Líceum. 2002. 200 s. ISBN 0269771 Karvalics Z. László: Neumann Jánostól az Internetig. Budapest : Napvilág, 1999. 140. ISBN 9639082228 Z. Karvalics L.: Információs társadalom (a technikától az emberig). Műegyetemi Kiadó BME TTTK Budapest. 1995 Stoffová Veronika: Education for information and knowledge based society = Vzdelávanie pre informačnú a vedomostnú spoločnosť. Brno : Univerzita J. Selyeho Komárno, 2012. 245 s. ISBN 9788081220647 Stoffová Veronika: Počítač univerzálny didaktický prostriedok. Nitra, 2004. 173Ss. ISBN 80 8050 765 1 Tapscott Don: Digitális gyermekkor. Budapest : Kossuth Könyvkiadó, 2001. 383 s. ISBN 9630943042 Zrinszky László: Tájékozódás, tanulás, tudás. Budapest : Usiris Könyvkiadó, 2007. 240 s. ISBN 978 963 9706 14 9 MEDIÁLNÍ PEDAGOGIKA V TEORII A PRAXI - Asociace pro ...	

www.medialnipedagogika.cz/.../Schorb-Sloboda_Teorie-med-ped_in_Medialni-pedagogika-v-teorii-a-praxi.pdf

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 351

A	B	C	D	E	FX
45.58	25.64	14.81	6.27	5.98	1.71

Teacher: Gyöngyi Gál, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ PKO/15	**Name:** Educational communication
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 1.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Evolution: A – 90 -100%, B – 80 -89%, C – 70 -79%, D – 60 - 69%, E – 50 -59%.	
Results of education: Student will get theoretical and practical basic skills within the social and pedagogical communication. During practices student will learn verbal and non-verbal skills used within the social communication, will train standard pedagogical situations - such as introduction of a new student, praise of a student, communication with parents. Student will be able to use non-verbal and paralinguistic means of expressions within these situations. Student will be able to analyze the school classes according to aspects of pedagogical communication.	
Brief syllabus: Introduction to communicaton. Definition of communication, social communication and terms. People and communication. Individual communication skills. Verbal communication. Words and their interpretaion. Paralinguistical means of expression. Practicing of verbal skills. Non-verbal communication. Menos of expression of non-verbal communication. Emhatic and assertive communication, behaviour and its importance int he communication. Basic characteristics of pedagogical communication. Educational goals and pedagogical communication. Organisational forms and didactical methods in accordance with communication. Main characteristics of teacher's communication. Monological and dialogical commnication forms. Verbal behaviour of students. Cooperation between teachers and students. How does the teacher motivates? The question of the teacher. Teacher's instructions. Evaluation. Tacher"s explanation. Solving of educational conflicts. Regulation of student's communication. Non-verbal communication during the class. Paralinguistic communication. Body-communication in education. Communcation barriers. Expression of expectations.	
Literature: Buda Béla. A közvetlen emberi kommunikáció szabályszerűségei. Budapest : Tömegkommunikációs Kutatóközpont, 1988. 296 s. ISBN 963 333 043 2 Gavora Peter. Akí sú moji žiaci? . 3. vyd. Nitra : Enigma, 2011. 222 s. ISBN 9788089132911 Nelešovská Alena. Pedagogická komunikace v teorii a praxi.1. vyd. : Grada, 2005. 175s. ISBN 8024707381	

Mareš Jiří. Sociální a pedagogická komunikace ve škole. 1. vyd. Praha : Statní Pedagogické Nakladatelství, 1989. 165s. ISBN 8004218547
Strédl Terézia. Kommunikáció és konfliktuskezelés. 1. vyd. Révkomárom : Szakképző és Felnőttképzési Intézet, 2009. 71 s. ISBN 9788097001124

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Langugage

Notes:

Evaluation of subjects
Total number of evaluated students: 1101

A	B	C	D	E	FX
66.39	14.26	11.44	4.27	2.72	0.91

Teacher:

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ PRV/15/15	**Name:** Project Education
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject:	
Results of education:	
Brief syllabus:	
Literature:	
Language, knowledge of which is necessary to complete a course:	
Notes:	

Evaluation of subjects
Total number of evaluated students: 72

A	B	C	D	E	FX
55.56	22.22	12.5	2.78	4.17	2.78

Teacher: Dr. habil. Erika Kopp, PhD.
Date of last update: 02.05.2022
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ PX1/15	**Name:** Teaching Practice
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week: For the study period:** 20s **Methods of study:** present	
Number of credits: 2	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Graduate student observation in the range of 5-5 hours of both the scope of its subject specialization. Student completes a training school lectures and practical presentation of the school's documentation or school facility. Student in due time the Head of teaching experience shall submit report on teaching practice.	
Results of education: Students gain knowledge in the following topics: papers school or school facility, pedagogical documentation and school facilities, teaching methods, curricula, course teaching outline lesson and preparation for the lesson, the possibility of active work with pupils, criteria, methods and forms of assessment	
Brief syllabus: Observation in the range of 5-5 hours from both objects subject specialization. A training school conducted lectures and practical presentation of the school's documentation or school facility. National and school educational program. Class book and record classification	
Literature: ISCED2 ISCED3	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak Language	
Notes:	
Evaluation of subjects Total number of evaluated students: 455	

a	n
98.24	1.76

Teacher: PaedDr. Tamás Török, PhD., prof. Dr. Béla István Pukánszky, DSc.	
Date of last update: 02.05.2022	

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ ROR/15	**Name:** gender equality

Types, range and methods of educational activities:
Form of study: Seminar
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test. Condition for successful completion of this course is to obtain at least 50% of the maximum possible assessment of the subject. Evaluation: A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%.

Results of education:
The student will learn about the concept of social gender in social, psychological, and biological context. The student will be able to identify gender prejudice in education and develop preventive methods for women and men (girls and boys). The student will be able to recognize the stereotype system within the education, and its negative effects. The student will be able to apply the necessary methodology for ensuring social gender identity in the school environment.

Brief syllabus:
Gender - gender studies - definition: gender, sex, gender stereotypes, gender sensitization in education, both direct and indirect discrimination, emancipation, feminism.The social position of women. The principles of gender. The cultural and subcultural interpretation ofsocial gender.The society and its role in social gender equality. Education and self-education. Equal opportunities.Education according to the social gender perspective - gender socialization theory, feminine pedagogy, senzitizing education of social gender.The gender in the education process. Inequalities in school. The gender aspects of family education. The role and potential of gendercommunication.

Literature:
Bútorová Zora: Násilie páchané na ženách ako problém verejnej politiky. Bratislava : IVO Inštitút pre verejné otázky, 2005. 132 s. ISBN 80 88935 78 4
Bútorová Zora: She and He in Slovakia Gender and Age in the Period of Transition. Bratislava : Institute for Public Affairs, 2008. 342 s. ISBN 978808934514
Pukánszky Béla: A nőnevelés története. 1. vyd. Budapest : Gondolat Kiadó, 2013. 228 s. ISBN 9789636932220
Pukánszky Béla: A gyermekkor története. 1. vyd. Budapest : Műszaki Könyvkiadó, 2001. 201s. ISBN 963 16 2782 9
Pukánszky Béla: Két évszázad gyermekei : A tizenkilencedik-huszadik század gyermekkorának története. 1. vyd. Budapest : Eötvös József Könyvkiadó, 2003. 308 s. ISBN 963 9316 65 2

Vajda Zsuzsanna, Kósa Éva. Neveléslélektan. Budapest : Osiris Kiadó, 2005. 564 s. ISBN 963 389 728 9

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 357

A	B	C	D	E	FX
52.94	24.93	14.29	5.32	2.52	0.0

Teacher: prof. Dr. Béla István Pukánszky, DSc.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ SCP/15	**Name:** social psychology

Types, range and methods of educational activities:
Form of study: Lecture
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 2

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test. Condition for successful completion of this course is to obtain at least 50% of the maximum possible assessment of the subject. Evaluation: A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%.

Results of education:
Studentswillgetwidepictureabouttheinterdisciplinarpsychologicaltrends being incontextwiththeeducationalprocesssuchasgroupcohesion, attributiontheory and socimetry, bothontheoretical and practicallevel.

Brief syllabus:
Psychology and itsinterdisliplinarityincoherencewiththescience of nowadays. Socialpsychology and its 4 fields: individual, socialrelationships, group, crowd – characteristics, attributes. Socialperception, scialcommnication, socialgroups. Moreno and thesociometry. Schoolenviroment and aspects of optimalisation.

Literature:
Aronson Elliot: A társas lény. 1. vyd. Budapest : Akadémiai Kiadó, 2011. 504 s. ISBN 978 963 05 86283 Aronson Elliot: Columbine után : Az iskolai erőszak szociálpszichológiája. 1. vyd. Budapest : Ab Ovo Kiadó. 2009. 191 s. ISBN 978-963-9378-72-8. Boroš Július: Základy sociálnej psychológie : (pre študujúcich humánne, sociálne a ekonomické vedy) 1. vyd. : IRIS, 2001. 227 s. ISBN 8089018203 Csepeli György: A meghatározatlan állat : Szociálpszichológia kezdőknek és haladóknak. 1. vyd. Budapest : Jószöveg Műhely Kiadó, 2005. 324 s. ISBN 963 7052 25 9 Csepeli György: A szociálpszichológia vázlata. Budapest : Jószöveg Műhely Könyvkiadó. 2001.160 s. ISBN 963 048 678 4 Goleman Daniel: Társas intelligencia = Az emberi kapcsolatok új tudománya. 3. vyd. Budapest. 506 s. ISBN 9789633100349

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 1158

A	B	C	D	E	FX
17.01	21.07	29.02	20.38	12.26	0.26
Teacher: PaedDr. Terézia Strédl, PhD.					
Date of last update: 02.05.2022					
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.					

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ SKS/15	**Name:** School - school climate

Types, range and methods of educational activities:
Form of study: Lecture
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 4.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Duringthesemester, studentswillproduce a five-pagestudyorprepare a sociogramduringthepedagogicalpractice, whichpresentsthe front of thegroup.
Evaluation: A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%

Results of education:
The students learnmapping the factorsof school-enviromental factors, learn aboit satisfactionmeasurement, cooperation. The student infored aboout the socialenvironment of micro- and meso-schoolenviroment.

Brief syllabus:
Socialization and socialspace. International trends and socialsegments. The schoolworld:theoreticaltrendsinschool, historicaloverview, types, schoolclimate, system and structure. Manifest, latent, fulfilled andunfulfilledneeds. Hidden curriculum. The microenvironment of school. Locality and theschool. Extra-curriculartasks. Leisureas a thirdsocializingarea. The school'smacroenvironment. Family, teachers, professionals, society - trends and tendencies. Schoolint he postmodern / IT world.

Literature:
Csoma Gyula: Elviszik-e a kutyák az iskolát? Móra Könyvkiadó : Budapest. 1983
Hvozdík Stanislav: Vybrané kapitoly zo školskej psychológie I. Prešov : FF P. Katedra psychológie. 1999. 402 s. ISBN 80 88922 038
Gajdošová Eva: Školský psychológ = a jeho vstup do humanizácie našich škôl. 1. vyd. Bratislava : PRÍRODA a. s. 1998. 190 s. ISBN 80 0701029 7
Nagy Ádám: Családon és iskolán túl - a harmadlagos szocializációs közeg és az ifjúságügy mint önálló terület elméleti alapjai. Excenter füzetek 3. Budapest : Excenter Kutatóközpont. 2010(www.excenter.eu., www.iufjúságugy.hu)
Nagy Ádám: Ifjúságügy - ifjúsági munka és az ifjúság. Excernter füzetek 5. Budapest : Excenter Kutatóközpont. 2010. www.excenter.eu
Székely Levente: Virtuális ifjúsági munka és az e-ifjúság. Excenter füzetek 5. Budapest : Excenter Kutatóközpont. 2010. www.excenter.eu
Trencsényi László: Hetedik nekifutás az értékek útvesztőjében. Budapesti Nevelő. 2009/2. http: // preview.fppti.hu/data/cms54391/2009.2.szam.teljes%29.pdf

Turek, Ivan: Moderné trendy vo výučbe na vysokých školách. 1. vyd. Komárno : Univerzita J. Selyeho. 2006. 496s. ISBN 80 89234135
Zelina Miron: Stratégie a metódy rozvoja osobnosti. Bratislava : Iris, 1994. 162s. ISBN 80 96701347

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovák Language

Notes:

Evaluation of subjects
Total number of evaluated students: 314

A	B	C	D	E	FX
28.66	22.93	14.65	9.87	19.11	4.78

Teacher: Dr. habil. Erika Kopp, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ SMP/15	**Name:** School management and school policy

Types, range and methods of educational activities:
Form of study: Lecture / Seminar
Recommended extent of course (in hours):
Per week: 1 / 1 **For the study period:** 13 / 13
Methods of study: present

Number of credits: 3

Recommended semester/trimester of study: 6.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test – 100 points. Students can solve exercise given b the teacher during the class. Each exercise can earn 5 points (up to 230 points in total). If the amount of earned points is acceptable for the student to pass the class, there is no need to attend the final test. The class could be pass after earning of at least 50 % of earnable points. The marking is A – 90 -100%, B – 80 -89%, C – 70 -79%, D – 60 - 69%, E – 50 -59%

Results of education:
Student will get knowledges about the complex operational school management, quality management, managing styles, school marketing and will be able to apply these knowledges in practical way in accordance with the Slovak legislation.

Brief syllabus:
The functions of the school. The essence of school management in a democratic society.Adaptability of the school management system.The roles of the government and governmental institutions at school management.The main purposes of the school management.Concepts and management theories.School management.School managing models and its specialties.The basic management roles. Educational programs as a part of the school management. Internal rules leading to optimal operation. Managing styles.The personality and communicational skills of the manager. School marketing end the current needs of schools. The climate and culture within the school in case of producing nd applying of educational programs.

Literature:
Halász Gábor. A közoktatási rendszerek irányítása. Okker kiadó. 94 s. - ISBN 0009672.
Halász Gábor. Az oktatás az Európai Únióban = Tanulás és együttműködés. - 1. vyd. - Budapest : Új Mandátum Könyvkiadó, 2012. - 376 s. - ISBN 978 963 287 053 3.
Halász Gábor. Az oktatás minősége és az önkormányzati oktatásirányítás : Okker kiadó, 1996. - 364 s. - ISBN 9637315403.
Halász Gábor. Az oktatási rendszer. - 1. vyd. - Budapest : Műszaki Könyvkiadó, 2001. - 215s. - ISBN 963-16-2769-1.
Horváthová, Kinga, Manniová, Jolana.Úvod do školského manažmentu. - 1. vyd. - Ivanka pri Dunaji : AXIMA, 2008. - 179 s. - ISBN 978 80 969178 6 0.

Školský manažment v nových spoločenských podmienkach (pre riadiacich pedagogických zamestnancov) = Zborník z medzinárodnej vedeckej konferencie / Kinga Horváthová. - 1. vyd. - Bratislava : Katedra pedagogiky Pedagogickej fakulty UK v Bratislave, 2008. - 182 s. - ISBN 978-80-969178-8-4.
Horváthová, Kinga. Kontrola a hodnotenie v školskom manažmente. - 1. vyd. - Bratislava : Wolters Kluwer, 2010. - 106 s. - ISBN 978-80-8078-329-7.
Albert Sándor. Iskolavezetés. - 1. vyd. - Selye János Egyetem : Komárom, 2007. - 82 s. - ISBN 978-80-89234-27-1.
Albert Sándor. Minőségfejlesztés az iskolában. - Komárno : Selye János Egyetem, 2006. - 130. - ISBN 8089234127.
Albert Sándor. Önértékelés és minőségbiztosítás az iskolában. - 1. vyd. - Pécs : Comenius Kft., 2009. - 108 s. - ISBN 978 963 9687 26 4.
Kosová Beata. Transformačné premeny Slovenského školstva po roku 1989. - 1. vyd. - Banská Bystrica : Pedagogická fakulta Univerzity Mateja Bela, 2011. - 168 s. - ISBN 978-80-557-0275-9.

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 635

A	B	C	D	E	FX
21.26	14.33	17.32	20.94	24.57	1.57

Teacher: Dr. habil. PaedDr. Kinga Horváth, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ SPP/15	**Name:** School prevention programs
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 4.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Final test end PPT. Condition for successful completion of this course is to obtain at least 50% of the maximum possible assessment of the subject. Evaluation: A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%	
Results of education: The students acquire competences about prevention, healthdevelopment in schoolenvironment. The topic of the presentationis the prevention for students. Atthe end of the semester there is a testassessesacquired knowledge.	
Brief syllabus: Defininghealth. Biological, psychological, emotional, mental and socialhealth. Riskybehavior. General, selective and indicatedprevention. Primary, secondary, tertiaryprevention. Dependencies and types. The schoolriskfactors. The healthylifestyle. Calorie-balance. Mentalhealthconditions. School-basedpreventionprograms. Relaxation. Presentation and tapasztalatcsere.	
Literature: Bagdy Emőke: Személyiségfejlesztő módszerek az iskolában. Budapest : Nemzeti Tankönyvkiadó. 2002. 308 s. ISBN 9631922359. Bagdy Emőke. Pszichofitness. Budapest :ANIMULA, 2003.104 s. ISBN 9634080502 Buda Béla: A mentálhigiéné szemléleti és gyakorlati kérdései. Budapest : ANIMULA. 2002. 384 s. ISBN 963 05 2412 Labáth Vladimír: Expoprogram. Bratislava : Psychodiagnostika. 1991. 198 s. Metodické pokyny. www.statpedu. sk	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak Language	
Notes:	
Evaluation of subjects Total number of evaluated students: 873	

A	B	C	D	E	FX
35.05	24.86	19.13	7.45	13.06	0.46
Teacher: PaedDr. Beáta Kiss					
Date of last update: 02.05.2022					
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.					

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/SVZ/15	**Name:** Socio-Scientific and pedagogical-psychological basis of teaching
Types, range and methods of educational activities: **Form of study:** **Recommended extent of course (in hours):** **Per week: For the study period:** **Methods of study:** present	
Number of credits: 2	
Recommended semester/trimester of study:	
Level of study: I.	
Prerequisites: KPD/SZdb/VDP/15 and KPD/SZdb/ZVP/15 and KPD/SZdb/TEV/15 and KPD/SZdb/VPS/15 and KPD/SZdb/DID/15 and KPD/SZdb/SCP/15 and KPD/SZdb/FVV/15 and KPD/SZdb/LAD/15 and KPD/SZdb/ANA/15 and KPD/SZdb/PX1/15 and KPD/SZdb/SMP/15 and KPD/SZdb/APK/15	
Conditions for passing the subject: The student's answer verbal subjects which are of pedagogical and psychological foundations that evaluated examination committee. Evolution: A – 90 -100%, B – 80 -89%, C – 70 -79%, D – 60 - 69%, E – 50 -59%.	
Results of education: Graduated from the Department Teaching academic subjects through common sociálnovedného, pedagogical and psychological basis for teachers to acquire knowledge of the problems of educational sciences and social and legislative context of education and training and the basics of digital, psychological and special pedagogical literacy teacher.	
Brief syllabus: x	
Literature: The compulsory and elective subjects is given subject data sheets.	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak Language	
Notes:	

Evaluation of subjects

Total number of evaluated students: 261

A	B	C	D	E	FX
26.05	23.37	22.61	15.71	10.34	1.92

Teacher:
Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ TEV/15	**Name:** Theory of education

Types, range and methods of educational activities:
Form of study: Lecture
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 3

Recommended semester/trimester of study: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test. Condition for successful completion of this course is to obtain at least 50% of the maximum possible assessment of the subject.
Evaluation: A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%

Results of education:
The main goal of the subject is to transfer knowledge to the students about the mission of education, trends, to learning theoretical concepts in a historical context and the acquisition of basic skills of pedagogical thinking.

Brief syllabus:
Education tasks and aims. Reflexív- science theories before. Pragmatic-behavioral theory. Cognitive - behavioral theory. Humanistic theory-accrual of persona. Multimedia information-theory.

Literature:
Bábosík István. Neveléselmélet. - Budapest : Osiris Kiadó, 2004. - 615 s. - ISBN 963389655x.
Budai Ágnes. Neveléselmélet gyakorlatközelben : A Majzik-jelenség. - 1. vyd. - Budapest : Műszaki Könyvkiadó, 2005. - 115s. - ISBN 963 16 4041 8.
Péter Lilla. Neveléselméleti alapkérdések. - 1. vyd. - Kolozsvár : Kolozsvári Egyetemi Kiadó, 2008. - 203 s. - ISBN 978-973-610-738-2.
Zelina Miron. Teórie výchovy alebo Hľadanie dobra. - 2. vyd. - Bratislava : SPN, 2010. - 232 s. - ISBN 978-80-10-01884-0.
Pukánszky Béla. Iskola és pedagógusképzés. - 1. vyd. - Budapest : Gondolat Kiadó, 2014. - 182 s. - ISBN 9789636932282.
Pukánszky Béla. A gyermekkor története. - 1. vyd. - Budapest : Műszaki Könyvkiadó, 2001. - 201s. - ISBN 963 16 2782 9.
Pukánszky Béla. Két évszázad gyermekei : A tizenkilencedik-huszadik század gyermekkorának története. - 1. vyd. - Budapest : Eötvös József Könyvkiadó, 2003. - 308 s. - ISBN 963 9316 65 2.
Vajda Zsuzsanna, Kósa Éva. Neveléslélektan. - 1. vyd. - Budapest : Osiris Kiadó, 2005. - 564 s. - ISBN 963 389 728 9. - ISSN 1218-9855.

Language, knowledge of which is necessary to complete a course:

Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 749

A	B	C	D	E	FX
27.64	25.77	21.23	14.69	9.61	1.07

Teacher: prof. Dr. Attila Józsefné Katalin Ambrus, DSc.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ VDP/15	**Name:** General education and history education

Types, range and methods of educational activities:
Form of study: Lecture
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 3

Recommended semester/trimester of study: 1.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test. Condition for successful completion of this course is to obtain at least 50% of the maximum possible assessment of the subject.
Evaluation:
A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%.

Results of education:
The students will receive a brief overview of the history of education, taxonomy, pedagogical concepts, and the laws of pedagogy.

Brief syllabus:
Introduction to the history of pedagogy. Education in ancient Greece, Egypt, Athens, and Sparta. Democritos, Socrates, Plato, Aristotle. Hellenic era, Roman Empire. Education in feudalism, the early Middle Ages. Comenius, Locke, Rousseau, Pestalozzi, Tesedík, Lehotsky,. The history of education in Slovakia. The new education movement.Educational theories. The approach of Bertrand. Pragmatic-behavioral, cognitive-scientific, humanistic, and personalist trends.Pedagogical models, their analysis and importance in today's educational practice. Patterns of educational situations.The practical application of educational theory. Compilation of evaluation scales, introduction of the "rating". Monitoring methodology and its analysis in the classroom.

Literature:
Slávka Hlásna, Kinga Horváthová, Martin Mucha, Renáta Tóthová. Úvod do pedagogiky / - 1. vyd. - Nitra : ENIGMA, 2006. - 356 s. - ISBN 80-89132-29-4. Švecová Valéria. Základy pedagogiky. Technická univerzita v Košiciach, 1998. - 124 s. - ISBN 80-7099-323-5. Prucha Jan. Moderní pedagogika. - 4. vyd. - Praha : Portál, 2009. - 481 s. - ISBN 978-80-7367-503-5. Zelina, Miron. Teórie výchovy alebo Hľadanie dobra. - 2. vyd. - Bratislava : SPN, 2010. - 232 s. - ISBN 978-80-10-01884-0. Kasper Tomáš, Kasperová, Dana. Dějiny pedagogiky. - 1. vyd. - Praha : Grada Publishing, 2010. - 224 s. - ISBN 978-80-247-2429-4. Pukánszky Béla. A magyar iskolatörténet és pedagógusképzés paradigmái. - 1. vyd. - Komárno : Univerzita J. Selyeho, 2014. - 119 s. - ISBN 978-80-8122-096-8.

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 1274

A	B	C	D	E	FX
33.59	31.87	22.68	8.08	3.77	0.0

Teacher: prof. Dr. Béla István Pukánszky, DSc., prof. Dr. Attila Józsefné Katalin Ambrus, DSc.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ VPS/15	**Name:** Developmental psychology

Types, range and methods of educational activities:
Form of study: Lecture
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 2

Recommended semester/trimester of study: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test.
Condition for successful completion of this course is to obtain at least 50% of the maximum possible assessment of the subject.
Evaluation: A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%.

Results of education:
Student will learn fylogenetic and ontogenetic development patterns, the characteristics of the developments periods focused to students.

Brief syllabus:
History and main trends of developmetnalpsychology. Developmentalperiodizationas per differentauthors (L. Nagy, S. Freud, Erikson, J. Piaget) and itscomparation. Psychicaldevelopmetnindifferentages: prenatal, natal, postnatal, pre-schoolage, schoolage, teenage, adolescence. Adult life periods: early, middle and matureadult, senior life and death. Developmentspecifics a ser theircharacteristics: optimal, slowed, late, pathological and disharmonical.

Literature:
Atkinson L. Rita: Pszicholóogia. Budapest : Osiris Kiadó, 2005. 852 s. ISBN 9633897130. Bordás Sándor, Forró Zsuzsa, Németh Margit, Stredl Terézia: Pszichológiai jegyzetek. 3. vyd. Komárom : Valeur s.r.o. 2009. 320s. ISBN 9788089234851 Cole Michael: Fejlődéslélektan. Budapest : Osiris Kiadó, 2003. 810 s. ISBN 9633894735 Erényi Tibor at all.: Freud, avagy a modern individuum felfedezése. Budapest : Napvilág, 1997. 98. ISBN 9639082015 Mérei Ferenc - Binet V. Ágnes: Gyermeklélektan. Budapest : Medicina Könyvkiadó, 2006. 303 s. ISBN 963 226 027 9 Inhelder Barbel, Jean Piaget: A gyermek logikájától az ifjú logikájáig : A formális műveleti struktúrák kialakulása. Budapest : Akadémiai Kiadó. 1984. 336 s. ISBN 963 05 3642 0. Zelina Miron: Stratégie a metódy rozvoja osobnosti : Metódy výchovy. 2. vyd. Bratislava : Iris. 1996. 234 s. ISBN 8096701347

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 1204

A	B	C	D	E	FX
14.7	17.11	25.58	30.56	10.96	1.08

Teacher: PaedDr. Terézia Strédl, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ VUM/15/15	**Name:** art education
Types, range and methods of educational activities: **Form of study:** Seminar **Recommended extent of course (in hours):** **Per week:** 1 **For the study period:** 13 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 6.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject:	
Results of education:	
Brief syllabus:	
Literature:	
Language, knowledge of which is necessary to complete a course:	
Notes:	

Evaluation of subjects

Total number of evaluated students: 55

A	B	C	D	E	FX
87.27	12.73	0.0	0.0	0.0	0.0

Teacher:
Date of last update: 02.05.2022
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/SZdb/ ZVP/15	**Name:** Fundamentals of General Psychology

Types, range and methods of educational activities:
Form of study: Lecture
Recommended extent of course (in hours):
Per week: 1 **For the study period:** 13
Methods of study: present

Number of credits: 2

Recommended semester/trimester of study: 1.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test. Condition for successful completion of this course is to obtain at least 50% of the maximum possible assessment of the subject. Evaluation: A - 90 -100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%.

Results of education:
The goal is toclarifythebasictheoreticalknowledge of generalpsychology and tobringpsychologyas a scientificdisciplineinterms of itshistoricaldevelopment, research and theories. Masteringthisknowledge is necessarynotonlyforthe management of otherpsychologicaldisciplines, butalsoforunderstandingthefunctioningmechanisms of the human psyche. Studentaftercompletion of thecourse: candefineindividualpsychologicalconceptssuchasmemory, thinking, language, etc., knowsthefunctioningmechanisms of cognitive, emotional and motivationalprocesses, identifiesvariouspsychologicalapproachesexaminingthepsyche of theindividual, theirspecifics and canappliehisknowledgetosolvepracticalproblemsinvariousareas of social life, butespeciallyineducationalpractice.

Brief syllabus:
1. Introduction 2. Main goals and metodology 3. Nature and nurture, neuropsychology4. Sensation and perception 5. Thinking 6. Language and communication 7. Memory 8. Learning 9. Emotions 10. IQ and creativity 12. Motivation 12. Personality 13. Coping

Literature:
Atkinson L. Rita: Pszichológia. Budapest : Osiris Kiadó, 2005. 852 s. ISBN 9633897130.
Bordás Sándor, Forró Zsuzsa, Németh Margit, Stredl Terézia: Pszichológiai jegyzetek. 3. vyd. Komárom : Valeur s.r.o., 2009. 320s. ISBN 9788089234851
Bugán A., PléhCs: Fejezetek a pszichológia alapterületeiből. Budapest : ELTE Eötvös Kiadó, 2000. 408 s. ISBN 9634633838
Pléh Csaba: A lélektan története. 2. vyd. Budapest : Osiris Kiadó, 2010. 652 s. ISBN 978 963 276 0520
Pléh Csaba, Boross Ottilia: Akadémiai lexikonok - Pszichológia : A pszichológia legfontosabb fogalmai magyar és angol nyelven. 1. vyd. Budapest : Akadémiai Kiadó, 2010. 403 s. ISBN 978 963 8658 0

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak Language

Notes:

Evaluation of subjects
Total number of evaluated students: 1439

A	B	C	D	E	FX
10.35	16.68	20.92	21.06	25.5	5.49

Teacher: Mgr. Anita Tóth-Bakos, PhD.

Date of last update: 02.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL1a/CT/17	**Name:** CARDIO TRAINING
Types, range and methods of educational activities: **Form of study:** Practical **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 1.	
Level of study: I., II.	
Prerequisites:	
Conditions for passing the subject: Active participation in the lesson. a (absolvovanie) 13-11 times in the PE lesson. n (neabsolvovanie) 10-0 times in the PE lesson.	
Results of education: Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
Brief syllabus:	
Literature: Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8. Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7. Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991 Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak language.	
Notes: Active participation in the lesson.	
Evaluation of subjects Total number of evaluated students: 12	

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek
Date of last update: 04.05.2022
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL1a/FI/17	**Name:** FITNESS

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 1.

Level of study: I., II.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 163

a	n
99.39	0.61

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL1a/HI/17	**Name:** HOT IRON

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 1.

Level of study: I., II.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 19

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL1b/CT/17	**Name:** CARDIO TRAINING

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 2.

Level of study: I., II.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 17

a	n
88.24	11.76

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL1b/FI/17	**Name:** FITNESS
Types, range and methods of educational activities: **Form of study:** Practical **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 2.	
Level of study: I., II.	
Prerequisites:	
Conditions for passing the subject: Active participation in the lesson. a (absolvovanie) 13-11 times in the PE lesson. n (neabsolvovanie) 10-0 times in the PE lesson.	
Results of education: Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
Brief syllabus: Balesetvédelmi tájékoztatás. A törzs izomzatának fejlesztése. Erősítő hatású gyakorlatok az egész test formálására. Helyes testtartás szabályai elsajátítása az egyes gyakorlatok során. Saját testsúlyú gyakorlatok, gyakorlatok kézi súlyzóval, gyakorlatok gépeken. Lazító hatású gyakorlatok, stretching. Progresszív sorozatok alkalmazása. Gyorsaságfejlesztés. Állóképesség fejlesztés. Erőfejlesztés. A felső végtag izomzatának fejlesztése. Sportág specifikus képességfejlesztés. Egészséges életmód elsajátítása.	
Literature: Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8. Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7. Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991 Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak language.	
Notes: Active participation in the lesson.	
Evaluation of subjects Total number of evaluated students: 135	

a	n
93.33	6.67
Teacher: PaedDr. Peter Židek	
Date of last update: 04.05.2022	
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.	

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL1b/HI/17	**Name:** HOT IRON

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 2.

Level of study: I., II.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 22

a	n
95.45	4.55

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University

Name of the faculty: Faculty of Education

Code: KTVŠ/ TEL2a/CT/17	**Name:** CARDIO TRAINING

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 3.

Level of study: I., II.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 4

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL2a/FI/17	**Name:** FITNESS
Types, range and methods of educational activities: **Form of study:** Practical **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 3.	
Level of study: I., II.	
Prerequisites:	
Conditions for passing the subject: Active participation in the lesson. a (absolvovanie) 13-11 times in the PE lesson. n (neabsolvovanie) 10-0 times in the PE lesson.	
Results of education: Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
Brief syllabus: Balesetvédelmi tájékoztatás. Az alsó végtag izomzatának fejlesztése. A törzs izomzatának fejlesztése. Erősítő hatású gyakorlatok az egész test formálására. Helyes testtartás szabályai elsajátítása az egyes gyakorlatok során. Saját testsúlyú gyakorlatok, gyakorlatok kézi súlyzóval, gyakorlatok gépeken. Lazító hatású gyakorlatok, stretching. Progresszív sorozatok alkalmazása. Gyorsaságfejlesztés. Állóképesség fejlesztés. Erőfejlesztés. A felső végtag izomzatának fejlesztése. Sportág specifikus képességfejlesztés. Egészséges életmód elsajátítása.	
Literature: Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8. Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7. Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991 Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak language.	
Notes: Active participation in the lesson.	
Evaluation of subjects Total number of evaluated students: 71	

a	n
100.0	0.0
Teacher: PaedDr. Peter Židek	
Date of last update: 04.05.2022	
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.	

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL2a/HI/17	**Name:** HOT IRON

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 3.

Level of study: I., II.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 14

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL2b/CF/17	**Name:** CROSS FIT
Types, range and methods of educational activities: **Form of study:** Practical **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 4.	
Level of study: I., II.	
Prerequisites:	
Conditions for passing the subject: Active participation in the lesson. a (absolvovanie) 13-11 times in the PE lesson. n (neabsolvovanie) 10-0 times in the PE lesson.	
Results of education: Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
Brief syllabus:	
Literature: Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8. Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7. Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991 Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak language.	
Notes: Active participation in the lesson.	
Evaluation of subjects Total number of evaluated students: 2	

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek
Date of last update: 04.05.2022
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL2b/CT/17	**Name:** CARDIO TRAINING

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 4.

Level of study: I., II.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 8

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL2b/FI/17	**Name:** FITNESS
Types, range and methods of educational activities: **Form of study:** Practical **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 4.	
Level of study: I., II.	
Prerequisites:	
Conditions for passing the subject: Active participation in the lesson. a (absolvovanie) 13-11 times in the PE lesson. n (neabsolvovanie) 10-0 times in the PE lesson.	
Results of education: Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
Brief syllabus: Balesetvédelmi tájékoztatás. Has- és hát-izomerősítő gyakorlatok. Az alsó végtag izomzatának fejlesztése. A törzs izomzatának fejlesztése. Erősítő hatású gyakorlatok az egész test formálására. Helyes testtartás szabályai elsajátítása az egyes gyakorlatok során. Saját testsúlyú gyakorlatok, gyakorlatok kézi súlyzóval, gyakorlatok gépeken. Lazító hatású gyakorlatok, stretching. Progresszív sorozatok alkalmazása. Gyorsaságfejlesztés. Állóképesség fejlesztés. Erőfejlesztés. A felső végtag izomzatának fejlesztése. Sportág specifikus képességfejlesztés. Egészséges életmód elsajátítása.	
Literature: Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8. Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7. Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991 Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak language.	
Notes: Active participation in the lesson.	
Evaluation of subjects Total number of evaluated students: 69	

a	n
91.3	8.7
Teacher: PaedDr. Peter Židek	
Date of last update: 04.05.2022	
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.	

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL2b/HI/17	**Name:** HOT IRON

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 4.

Level of study: I., II.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 13

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University

Name of the faculty: Faculty of Education

Code: KTVŠ/ TEL3a/CF/17	**Name:** CROSS FIT

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 5.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 17

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University

Name of the faculty: Faculty of Education

Code: KTVŠ/ TEL3a/CT/17	**Name:** CARDIO TRAINING

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 5.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 8

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL3a/FI/17	**Name:** FITNESS

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 5.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 127

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL3a/HI/17	**Name:** HOT IRON

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 5.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson.
a (absolvovanie) 13-11 times in the PE lesson.
n (neabsolvovanie) 10-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 17

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL3b/CF/17	**Name:** CROSS FIT
Types, range and methods of educational activities: **Form of study:** Practical **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 6.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Active participation in the lesson. a (absolvovanie) 10-8 times in the PE lesson. n (neabsolvovanie) 7-0 times in the PE lesson.	
Results of education: Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
Brief syllabus:	
Literature: Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8. Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7. Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991 Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak language.	
Notes: Active participation in the lesson.	
Evaluation of subjects Total number of evaluated students: 9	

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek
Date of last update: 04.05.2022
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL3b/CT/17	**Name:** CARDIO TRAINING

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 6.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson. a (absolvovanie) 10-8 times in the PE lesson. n (neabsolvovanie) 7-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 18

a	n
94.44	5.56

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL3b/FI/17	**Name:** FITNESS

Types, range and methods of educational activities:
Form of study: Practical
Recommended extent of course (in hours):
Per week: 2 **For the study period:** 26
Methods of study: present

Number of credits: 1

Recommended semester/trimester of study: 6.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Active participation in the lesson. a (absolvovanie) 10-8 times in the PE lesson. n (neabsolvovanie) 7-0 times in the PE lesson.

Results of education:
Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.

Brief syllabus:

Literature:
Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8.
Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7.
Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991
Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972

Language, knowledge of which is necessary to complete a course:
Hungarian or Slovak language.

Notes:
Active participation in the lesson.

Evaluation of subjects
Total number of evaluated students: 109

a	n
99.08	0.92

Teacher: PaedDr. Peter Židek

Date of last update: 04.05.2022

Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KTVŠ/ TEL3b/HI/17	**Name:** HOT IRON
Types, range and methods of educational activities: **Form of study:** Practical **Recommended extent of course (in hours):** **Per week:** 2 **For the study period:** 26 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 6.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Active participation in the lesson. a (absolvovanie) 10-8 times in the PE lesson. n (neabsolvovanie) 7-0 times in the PE lesson.	
Results of education: Create a personal need to moving. Basic elements, rule of the game, get to known different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
Brief syllabus:	
Literature: Sportlexikon A-K / Nádori László. - 1. vyd. : Sport, 1985. - 516 s. - ISBN 963 253 415 8. Sportlexikon L -Z / Nádori László. - Budapest : Sport, 1986. - 1137 s. - ISBN 963 253 441 7. Testnevelés – Dr. Ozsváth Ferenc, Budapest, 1991 Antal Zoltán, Sass Tibor, László István: A magyar sport kézikönyve Sport, Budapest 1972	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak language.	
Notes: Active participation in the lesson.	
Evaluation of subjects Total number of evaluated students: 4	

a	n
100.0	0.0

Teacher: PaedDr. Peter Židek
Date of last update: 04.05.2022
Approved by: prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD., prof. RNDr. János Tóth, PhD.