CONTENS

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ ANT1/15	**Name:** Anthropology I

Types, range and methods of educational activities:
Form of study: Lecture / Practical
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:
Protocols of practical exercises - 10%, oral exam - 90%. Final evaluation: A - 100 - 90% B - 89 - 80%, C - 79-70%, D - 69-60%, E - 59 - 50%. Credits are not awarded to students who do not achieve 50%.

Results of education:
Students acquire basic knowledge in functional human anatomy, including Hungarian, Slovak and Latin nomenclature.

Brief syllabus:
Anatomical nomenclature, basic planes directions and the axis of the body. Skeletal system. Anatomy of the skull, bones of the upper and lower extremities. Muscular system. Overview of the main muscle groups - head, neck, body, arms and legs. The respiratory system. Anatomy of the upper and lower respiratory tract. Digestive system. Anatomical structure of organs. Vascular system. Anatomy of the heart and blood vessels. Lymphatic system. The spleen, lymphatic vessels. Urinary system. Anatomical structure of the kidneys, urinary tract. Genital organs. Reproductive system. Nervous system. Central nervous system, brain, spinal cord, peripheral nervous system - head and spinal nerves. Sensory organs. The anatomical structure of the eyes, positionally and hearing organs, olfactory organs, gustatory organs, and the skin.

Literature:
Čihák, R.: Anatomie I.-III. Avicenum Praha, 1987, 1989, 1997. ISBN 80-7169-970-5
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

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

Notes:

Evaluation of subjects
Total number of evaluated students: 228

A	B	C	D	E	FX
31.58	14.04	16.67	12.72	14.47	10.53

Teacher: Dr. habil. PaedDr. Melinda Nagy, PhD., Dr. habil. Sarolta Zsuzsanna Mészárosné Darvay, PhD.

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ BAC-B/15	**Name:** Bachelor Thesis with Defense

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:
Thesis defense, which is evaluated by the 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:
Student presents basic knowledge, habits and theoretical and practical skills required for work associated with the planning, research implementation in biology and publishing.

Brief syllabus:
Work submitted includes parts in accordance with the current directive of the Rector about the final thesis.

Literature:
Study literature mentioned in the assigned topic.

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

Notes:

Evaluation of subjects
Total number of evaluated students: 35

A	B	C	D	E	FX
62.86	25.71	8.57	0.0	2.86	0.0

Teacher:

Date of last update: 15.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ BCH1/15	**Name:** Biochemistry and Molecular Biology I

Types, range and methods of educational activities:
Form of study: Lecture / Practical
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: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Protokols - 10%, oral exams - 90%.
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:
Students acquire basic knowledge about the metabolism of living organisms. Understand the chemical composition of living systems and metabolic transformation of substances in living systems.

Brief syllabus:
A brief history biochemistry. Subject and contents of biochemistry. The chemical composition of living organisms. Energetics of living organisms. Polysaccharides: Structure, biologically important monosaccharides and their derivatives. Formation of glycoside bonds. Important oligosaccharides. Lipids: The fatty acids. Triglycerides. Waxes. Complex lipids. Characteristics of biologically relevant lipids. Enzymes: Reaction rate and the effect of the catalyst. Active center of the enzyme and its reaction with the substrate. Apoenzymes and co-enzymes, some vitamins. Inhibition of enzyme reactions. Classification of enzymes. The flow of metabolic reactions, metabolic rate, anabolic, catabolic and amphibolic processes. Methods of study of metabolic processes. The energy metabolism of the cell. Anaerobic and aerobic glycolysis. Citric acid cycle. Glyoxylate cycle. Gluconeogenesis. Pentose cycle. Oxidative phosphorylation. Respiratory chain. Electron carriers. ATP synthesis. Utilization of fatty acids. Beta-oxidation. Biosynthesis of fatty acids. Photosynthetic phosphorylation and carbon fixation. Photosystem I and II. Cyclic and non-cyclic photosynthetic phosphorylation, production of ATP, NADPH and water splitting. The reactions of photosynthesis independent of the light. CO2 fixation in C3 and C4 plants. Photorespiration. Calvin cycle.

Literature:
BÁLEŠ, V., MÉSZÁROS, A., POLAKOVIČ, M., ŠTEFUCA, V.: Biochemické technológie / Biochemical Technologies. - 1. vyd. - Bratislava : AB- Art, 2003. - 128 s. - ISBN 80-89006-75-2
BRECHTLOVÁ, M., HALČÁK, L.: Lekárska biochémia : Seminárna a praktická časť. - 3. vyd. - Bratislava : Univerzita Komenského v Bratislave, 2007. - 168 s. - ISBN 978-80-223-2304-8
GÁLOVÁ, Z., SALAJ, J., MATUŠÍKOVÁ, I.: Molekulárna biológia. - 2. vyd. - Nitra : Slovenská poľnohospodárska univerzita, 2007. - 165 s. - ISBN 978-80-8069-951-2

MANDL, J.: Biokémia : Aminosavak, peptidek, szenhidrátok, lipidek, nukleotidok, nukleinsavak, vitaminok és koenzimek szerkezete és tulajdonságai - 1. vyd. - Budapest : Semmelweis Kiadó, 2006. - 176 s. - ISBN 963 9656 18 6
VODRÁŽKA, Z.: Biochemie . - 1. vyd. - Praha : Academia, 2007. - 190 s. - ISBN 978-80-200-0600-4
WATSON, J.D. A KOL.: Rekombinantní DNA, Academia, Praha, 1988, 294 strán

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

Notes:

Evaluation of subjects
Total number of evaluated students: 276

A	B	C	D	E	FX
28.26	16.67	29.71	15.94	7.25	2.17

Teacher: Dr. habil. PaedDr. Melinda Nagy, PhD., RNDr. Eva Tóthová Tarová, PhD.

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ BCH2/15	**Name:** Biochemistry and Molecular Biology II

Types, range and methods of educational activities:
Form of study: Lecture / Practical
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:
Protokols - 10%, oral exams - 90%. 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:
Students acquire basic knowledge about the mechanisms of replication, transcription, translation - the molecular basis of genetic information transfer and its expression during ontogenesis.

Brief syllabus:
Amino acids: structure, properties, chemical reactions. Peptide bond. Proteins and polypeptides: Physical and chemical characteristics, primary structure. Secondary structure of proteins. Alpha helix, beta sheet structure and collagen. Tertiary and quaternary structure. Methods of study of protein structure. Protein synthesis. Nucleic acids: nitrogen bases, nucleosides and nucleotides, ribonucleotides, and dezoxyribonukleotides, their structure and characteristics. The primary structure of deoxyribonucleotide acids, its determination. The secondary structure of DNA, A, B, Z forms of double helix and their characteristics. Denaturation of double-stranded DNA. The tertiary structure of the nucleic acids. DNA replication models. Experimental evidence of semi-conservative replication model. The mechanism of replication. Ribonucleic acid. Ribosomal, messenger and transfer RNAs, their structure and function. The synthesis of messenger RNA, transcription of genetic information. Summary of the genetic code. RNA enzyme activity. Terms: inducer, repressor, promoter, regulator. Basic methods of DNA studies. DNA polymorphisms.

Literature:
BÁLINT, M.: Molekuláris biológia I-II. -Műszaki Könyvkiadó, 2006, 414 oldal, ISBN: 9631626547
BÁNFALVI, G.: Molekuláris sejtbiológia. - 1. vyd. - Debrecen : Kossuth Egyetemi Kiadó, 2004. - 440s
BRECHTLOVÁ, M., HALČÁK, L.: Lekárska biochémia : Seminárna a praktická časť. - 3. vyd. - Bratislava : Univerzita Komenského v Bratislave, 2007. - 168 s. - ISBN 978-80-223-2304-8
DARNELL, J.: Molecular cell biology: Scientific American Book, 1986. - 1188. - ISBN 0716714485
Előd i, P.: Biokémia, Akadémiai Kiadó, Budapest 1989, 935 s.

GÁLOVÁ, Z., SALAJ, J., MATUŠÍKOVÁ, I.: Molekulárna biológia. - 2. vyd. - Nitra : Slovenská poľnohospodárska univerzita, 2007. - 165 s. - ISBN 978-80-8069-951-2
WATSON, J.D. A KOL.: Rekombinantní DNA, Academia, Praha, 1988, 294 strán

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

Notes:

Evaluation of subjects
Total number of evaluated students: 181

A	B	C	D	E	FX
31.49	31.49	17.13	9.94	8.84	1.1

Teacher: Dr. habil. PaedDr. Melinda Nagy, PhD., RNDr. Eva Tóthová Tarová, PhD.

Date of last update: 15.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ BOT1/15	**Name:** Botany I
Types, range and methods of educational activities: **Form of study:** Lecture / Practical **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: 1.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: 2 exams during the semester each 25 points. A minimum of 25 points must be acquired during the semester to get accepted to the final exam. Final exam 50 points. Evaluation: A – 100-90%, B – 89-80%, C – 79-70%, D – 69-60%, E – 59-50%.	
Results of education: By completing this course the student will gain knowledge about the anatomy and morfology the vascular plant. Students can use this to the determination of plants	
Brief syllabus: The definition of basic concepts. A brief history of botany. Organs of the plant, characterization and general morphological characteristics, germination of the vascular plant. The root: the primary and secondary structure. The root of monocots and dicots. Modified roots. Stem: tissues, primary and secondary structure. Monocots and dicots stem structure. Modified stems. Morphology - importance, phylogeny, ontogeny, Theory of Teloma. The leaf: Structure and tissues. The grasses, C4 plants and conifers metabolisers leaves. Morphology – anatomy, veins of the leaf blade morphology, simple and compound leafs, leaf development, leaf angles, filotaxis. Formula flowers and flower chart. Flowers: Introduction to plant embryology. The stamens, microsporogenesis, pollen formation and structure. The production, eise, the structure of the embryo sac. Morphology - simple and complex inflorescence, the flower - structure, floral landscapes, stamens, growing. Fruits: The fertilization. The embryo formation and structure. Pollination, fertilization, seed and maturity of harvest, crop types, and spread the seeds of the fruit. Vegetative and sexual reproduction.	
Literature: Bies R., Vlčko J., (1999): Lesnícka botanika špeciálna a fytológia. Návody na cvičenia. Vydavateľstvo TU vo Zvolene, Zvolen ISBN80-228-0807-5 Černohorský Z., (1971): Základy rastlinnej morfológie. SPN, Bratislava Haraszty Á., (1990): Növényszervezettan és növényélettan. Tankönyvkiadó, Budapest ISBN 963 18 3006 3 Tuba Z., Szerdahelyi T., Engloner A., Nagy J., (2007) : Botanika I. Sejttan, szövettan alaktan. Nemzeti tankönyvkiadó, Budapest. ISBN : 978-963-19-5849-2	

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

Notes:

Evaluation of subjects
Total number of evaluated students: 304

A	B	C	D	E	FX
5.26	9.54	12.5	10.86	52.63	9.21

Teacher: Ing. Pavol Balázs, PhD., Dr. habil. Sarolta Zsuzsanna Mészárosné Darvay, PhD.

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University

Name of the faculty: Faculty of Education

Code: KBIO/Bdb/ BOT2/15	**Name:** Botany II

Types, range and methods of educational activities:
Form of study: Lecture / Practical
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: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
2 exams during the semester each 25 points.
A minimum of 25 points must be acquired during the semester to get accepted to the final exam.
Final exam 50 points.
Evaluation: A – 100-90%, B – 89-80%, C – 79-70%, D – 69-60%, E – 59-50%.

Results of education:
After successful absolvation of the subject the student will gain knowlege about algae and fungi, know their taxonomy, the bigger groups of them and their respective characterization. The student will learn their importnace in the natural systems and their usability for the humankind.

Brief syllabus:
Phylogenetics of Cyanobacteri, Algae, Fungi and Fungi-like organisms and their significance for the nature and for the humankind.

Literature:
Bačkor M., (2007) : Systematika nižších rastlín. Vydala UPJŠ ISBN 978-80-7097-674-6
Hortobágyi T., (red.) (1977): Növénytan 2. Tankönyvkiadó Budapest. ISBN 963 17 2873 0
Tuba Z., Szerdahelyi T., Engloner A., Nagy J., (2007) : Botanika II. Rendszertan Nemzeti tankönyvkiadó, Budapest. ISBN : 978-963-19-5849-2
Urban Z., Kalina T., (1980): Systém a evoluce nižších rostlin. SPN Praha

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

Notes:

Evaluation of subjects
Total number of evaluated students: 267

A	B	C	D	E	FX
13.48	13.48	7.49	9.74	47.19	8.61

Teacher: Ing. Pavol Balázs, PhD., Dr. habil. Sarolta Zsuzsanna Mészárosné Darvay, PhD.

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ BOT3/15	**Name:** Botany III

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

Number of credits: 6

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
2 exams during the semester each 25 points.
A minimum of 25 points must be acquired during the semester to get accepted to the final exam.
Final exam 50 points.
Evaluation: A – 100-90%, B – 89-80%, C – 79-70%, D – 69-60%, E – 59-50%.

Results of education:
After successful absolvation of the course the student will know the main characteristics of mosses, ferns, gymnosperms, angiosperms, representative species of each group. The student will learn their importnace and their usability for the humankind.

Brief syllabus:
History of botany.
Taxonomic Categories, the hierarchy system.
Sources of taxonomic information.
Hepatophyta, Anthocerotophyta, Bryophyta, Lycopodiophyta, Equisetophyta, Pteridophyta, Cycadophyta, Ginkgophyta, Gnetophyta, Pinophyta, Magnoliophyta.
The main directions of the evolution of vascular plants.
Flora and vegetation.
Evolution/Developement of the Slovakian flora.
Protection of flora.

Literature:
Balázs P., (2012): Základy systému krytosemenných rastlín – A zárvatermő növények rendszerének alapjai. Univerzita J. Selyeho – Selye János egyetem, Komárno ISBN 978-80-8122-054-8
Gojdičová E., Mártonfi P., Mártonfiová L., (2008): Botanika-Cievnaté rastliny. Vydavateľstvo : Ústav vysokohorskej biológie Žilinskej univerzity ISBN 977808889223121
Hendrych R. (1979): Systém a evoluce vyšších rostlin. SPN, Praha
Hortobágyi T., Simon T., (red.) (1991): Növényföldrajz, társulástan és ökológia. Tankönyvkiadó Budapest. ISBN 963 18 3459
Moravec J. a kol. (1994): Fytocenologie. Academia Praha ISBN 80-200-0128-X

Tuba Z., Szerdahelyi T., Engloner A., Nagy J., (2007) : Botanika II. Rendszertan Nemzeti tankönyvkiadó, Budapest. ISBN : 978-963-19-5849-2
Tuba Z., Szerdahelyi T., Engloner A., Nagy J., (2007) : Botanika III. Növényföldrajz, társulástan, ökológia. Nemzeti tankönyvkiadó, Budapest. ISBN : 978-963-19-5849-2

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

Notes:

Evaluation of subjects
Total number of evaluated students: 238

A	B	C	D	E	FX
7.56	5.88	6.72	12.61	56.72	10.5

Teacher: Ing. Pavol Balázs, PhD., Dr. habil. PaedDr. Melinda Nagy, PhD.

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University

Name of the faculty: Faculty of Education

Code: KBIO/Bdb/ BPO/15	**Name:** Biopolitics

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: 2

Recommended semester/trimester of study: 5.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Test - 100 points. 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:
Students gain knowledge of biopolitics, gain a new perspective on the world in all spheres of life of human activity.

Brief syllabus:
Biopolitics as a tool for sustainable solidarity. Activities of international organizations in the field of global climate change. Diplomacy and international law in the field of biopolitics. Affect the development of biotechnology on the environment. Bio-architecture in human settlements. The state of the environment in Central Europe and Worldwide.

Literature:
CHOZIN, G.S. - VASILIJEV, V.S.- PISAREV, V.D - Bratislava : Pravda, 1982, 280 s.
Ekológia a medzinárodné vzťahy : Otázky životného prostredia vo svetovej politike a ekonomika.
Potravinový kódex SR - http://www.svssr.sk/sk/legislativa/kodex/kodex.asp

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

Notes:

Evaluation of subjects
Total number of evaluated students: 184

A	B	C	D	E	FX
46.74	35.87	9.24	5.43	2.72	0.0

Teacher:

Date of last update: 15.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ CHM1/15	**Name:** Chemistry I
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: 2	
Recommended semester/trimester of study: 1.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: For the successful accomplishment of this course, the students should collect 40 points during the semester and 60 points from the mid-term writing test. To enter the final exam, it is necessary to obtain 50% (i.e. minimum 20 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 successfully finishing this course, students will learn the basic principles of inorganic, organic and organometallic chemistry. In the future, they will be able to apply this basic knowledge for solving real practical problems.	
Brief syllabus: 1. Introduction to chemistry. Basic principles of chemistry. The matter, the pure matter. Mass, weight, energy and the elements. Atomic structure. Compounds. The law of conservation of energy and matter. The chemical bond. 2. The empirical laws. Atoms, compounds, the mole, the molar mass, chemical formulas and equations. 3. Periodic table of the elements 4. Solutions. The units of concentrations, calculations. 5. State of matter. 6. Diffusion and osmosis. Strong and weak electrolytes, ionization. 7. Theory of acids and bases. Titration. 8. Chemical reactions. Types of reactions, electropotentials, galvanic cells, electrolysis. 9. The rules of thermochemistry. Heat of reactions, reaction rates, catalysts. 10. Chemical equilibriums, equilibrium constants.	
Literature: SZABÓ, L.: Kémia I. – általános kémia. Budapest : Nemzeti Tankönyvkiadó, 1995. - 255 s. - ISBN 9631864634. ŽÚRKOVÁ, Ľ.: Všeobecná chémia. Bratislava : SPN, 1985. - 330 s. - ISBN 0010597. GREENWOOD, N. N., EARNSHAW, A.: Chemie prvků I a II. ISBN 80-85427-38-9 PLESCH, G., TATIERSKY, J.: Systematická anorganická chémia. 1 vyd. Bratislava : Omega Info, 2004 (http://anorganika.fns.uniba.sk/~plesch/Systemanorgchem.pdf)	

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

Notes:

Evaluation of subjects
Total number of evaluated students: 260

A	B	C	D	E	FX
36.15	18.08	14.62	16.15	11.15	3.85

Teacher:

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ CHM2/15	**Name:** Chemistry II
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: 2	
Recommended semester/trimester of study: 2.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: For the successful accomplishment of this course, the students should collect 40 points during the semester and 60 points from the mid-term writing test. To enter the final exam, it is necessary to obtain 50% (i.e. minimum 20 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 successfully finishing this course, students will get broader knowledge of inorganic, organic and organometallic chemistry. They will learn the basic rules and in the future, they will be able to apply this basic knowledge during their future practice as biology teachers.	
Brief syllabus: 1. Introduction to inorganic chemistry, the general terms. 2. Introduction of the main elements and their compounds. Characterization of the metals and transition metals. 3. Basic principles of organic chemistry. The chemical bonds in the molecules of organic compounds. 4. The central carbon atom, absolute configuration, optical isomerism, types of chirality, chiral molecules, enantiomers, racemates. 5. Saturated hydrocarbons — alkanes, cycloalkanes, bicycloalkanes. 6. Unsaturated hydrocarbons — alkenes, cycloalkenes, dienes, and alkynes. 7. Aromatic hydrocarbons, the electronic structure of benzene, examples of some important aromatic hydrocarbones. 8. Alcohols, phenols, and ethers. Oxo compounds: aldehydes and ketones. 9. Carboxylic acids and their functional derivatives. 10. Chemistry of the fatty acids, properties of the saturated and unsaturated fatty acids. The lipids 11. Heterocyclic compounds, nomenclature, physical and chemical properties. 12. Determinations of organometallic and element organic compounds. Types of ligands.	
Literature: GREENWOOD, N. N., EARNSHAW, A.: Chemie prvků I a II. ISBN 80-85427-38-9 BALOGH, Á.: Szerves kémia. Budapest: Műszaki Könyvkiadó, 1993. - 148 s. - ISBN 9631849791.	

BRUCKNER GY.: Szerves kémia III-1. kötet : Heterociklusos vegyületek. Budapest : Tankönyv Kiadó, 1991. - 755 s. - ISBN 963 18 3637 1.

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

Notes:

Evaluation of subjects
Total number of evaluated students: 104

A	B	C	D	E	FX
12.5	71.15	7.69	6.73	0.96	0.96

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

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ DIE/15	**Name:** Dietetics

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: 2

Recommended semester/trimester of study: 4.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final Exam: 100 points maximum. Grading: A – 100 - 90%, B – 89 - 80%, C – 79 - 70%, D – 69 - 60%, E – 59 - 50%. 0–49 Failed/Unsatisfactor.

Results of education:
Students gain advanced knowledge of human and animal nutrition.

Brief syllabus:
Introduction. Components of Nutrition. Food Contaminants
Contamination of Foodstuffs. Principles of Human Nutrition. Nutrition Education. Animal Nutrition and Veterinary Dietetics. Nutritional Value of Food. A nutrient cycle. Future prospects for food and feed security. Using Modern Agricultural Technology to Increase Production, Food Security, and Profitability. Future Prospects.

Literature:
DELI MAGDA, S.: A beteg gyermek diétáskönyve. Medicina, 1981. 310. ISBN 963 240 881 0.
HOPFENZITZOVÁ, P.: Minerálne látky : Aby sme boli fit. 1. vyd. : Media klub, 1999. 88 s. ISBN 80-88963-22-2.
PRINCIPAL, V.: Moje diéta. 1. vyd. : Copyright, 1991. 281s.
ŠIMONEK, J.: Pohyb a zdravie. 1. vyd. - Bratislava : PEEM, 2010. 155s. ISBN 978-80-8113-034-2.
WARD, E.M.: A diétázás bibliája. 1. vyd. Pécs : Alexandra Kiadó, 2005.320 s. ISBN 963 369 475 2.

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
45.05	20.88	18.68	12.09	2.2	1.1

Teacher: Dr. habil. Sarolta Zsuzsanna Mészárosné Darvay, PhD.
Date of last update: 27.06.2023
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ ETI/15	**Name:** Ethics for Biologists

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: 2

Recommended semester/trimester of study: 3.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final Exam: 100 points maximum. Grading: A – 100 - 90%, B – 89 - 80%, C – 79 - 70%, D – 69 - 60%, E – 59 - 50%. 0–49 Failed/Unsatisfactor.

Results of education:
Students taking this course will be able to Identify and discuss basic principles of bioethical practice. Provide rational justifications for ethical decisions.

Brief syllabus:
Bioethics: Basic Definition & Principles. Environmental ethics. Genetic engineering. Genetically modified organisms. Bioethics and the Use of Laboratory Animals. Eugenics. Abortion debate. 8. Surrogacy. Abortion. Death and dying. Euthanasia. Cloning.

Literature:
BALÁZS, P.: Bioetika : Az emberi élet erkölcsteológiája. 1. vyd. - Veszprém : VEK -Veszprémi Egyetemi Kiadó, 1995. 53 s. FERÁK, V. – SRŠEŇ, Š.: Genetika človeka. 1. vyd. - Bratislava : Pedagogické Nakladateľstvo, 1981. 440 s. GAIZLER, G.: Bioetika. 1. vyd. - Budapest, 1999. 285 s. MAKÓ, J. – ULLRICH, Z.: Bioetika – Ökumené. Budapest : Széphalom Könyvműhely, 2003. 332. - ISBN 963 9373 44 3. VARGHA, B.: Eutanázia. - Komárno : Selye János Egyetem, 2011. - DM.4504-TF.11.29B.2B. 74 s

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

Notes:

Evaluation of subjects
Total number of evaluated students: 207

A	B	C	D	E	FX
70.05	9.18	9.18	6.76	3.38	1.45

Teacher: RNDr. Eva Tóthová Tarová, PhD., Ing. Iveta Szencziová, PhD.

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ FYP/15	**Name:** Phytopathology

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: 2

Recommended semester/trimester of study: 4.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final Exam: 100 points maximum. Grading: A – 100 - 90%, B – 89 - 80%, C – 79 - 70%, D – 69 - 60%, E – 59 - 50%. 0–49 Failed/Unsatisfactor.

Results of education:
Acquire basic knowledge about the relationship of plants and pathogens in diagnostic methods and the biology of important pathogens of field crops and garden plants.

Brief syllabus:
Characteristics of non-cellular pathogenic microorganisms. Characteristics of prokaryotic pathogenic microorganisms. The characteristics of eukaryotic pathogenic microorganisms - Methods for diagnostics of pathogenic microorganisms - harmfulness of pathogenic micro-organisms - Methods of protecting plants against pathogens.

Literature:
HORVÁTH, J.: Növényvirusok. Budapest : Mezőgazda Kiadó, 1999. 430 s. ISBN 963 9239 372.
HUSZÁR, J., HUDEC, K. : Atlas chorôb ovocných druhov a viniča hroznorodého. Vydávateľstvo Perexis, 2004. s. 84, ISBN 80- 967853-2-X
HUSZÁR, J. - BOKOR, P. - HUDEC, K.: Choroby záhradníckych rastlín. SPU Nitra, 2006, s. 127. Tretie prepracované vydanie. ISBN 80-7137-744-9
KŮDELA, V.: Obecná fytopatologie. Academia Praha, 1989: 388 s.
ŽEMLA, J. a kol.: Všeobecná virológia. SAP Bratislava, 1995. 238 s.
ŽEMLA, J. a kol.: Špeciálna virológia. SAP Bratislava, 1998. 226 s.

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
28.8	26.4	14.4	12.0	16.8	1.6

Teacher:
Date of last update: 27.06.2023
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ FYR/15	**Name:** Plant Physisology
Types, range and methods of educational activities: **Form of study:** Lecture / Practical **Recommended extent of course (in hours):** **Per week:** 1 / 2 **For the study period:** 13 / 26 **Methods of study:** present	
Number of credits: 4	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: 2 exams during the semester each 25 points. A minimum of 25 points must be acquired during the semester to get accepted to the final exam. Final exam 50 points. Evaluation: A – 100-90%, B – 89-80%, C – 79-70%, D – 69-60%, E – 59-50%.	
Results of education: By completing this course the student will learn the basics of plant physiology:	
Brief syllabus: Photosynthesis The dissimilation The nitrogen cycle The mineral nutrition The interior material distribution of plants Growth of plants, regulating of growth, plant hormones Ontogenesis of plants Plant movements	
Literature: Haraszty Á., (1990): Növényszervezettan és növényélettan. Tankönyvkiadó, Budapest ISBN 963 18 3006 3 Hejnák V., a kol. (2010) : Fyziologie rostlin. Vydala Česká zemedelská univerzita v Praze ISBN 978-80-213-1667-6 Šebánek, J., a kol. (1983): Fyziologie rostlin. Státní zemedelské nakladatelství, Praha. Suba J., (1991): Növényélettani gyakorlatok. Tankönyvkiadó, Budapest	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak	
Notes:	
Evaluation of subjects Total number of evaluated students: 212	

A	B	C	D	E	FX
9.43	12.26	10.85	14.62	46.23	6.6
Teacher: Ing. Pavol Balázs, PhD., Dr. habil. PaedDr. Melinda Nagy, PhD.					
Date of last update: 15.05.2023					
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.					

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ FYZ/15	**Name:** Animal and Human Physiology

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

Number of credits: 5

Recommended semester/trimester of study: 5.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Protocols of practical exercises - 10%, oral exam - 90%. Final evaluation: A - 100 - 90% B - 89 - 80%, C - 79-70%, D - 69-60%, E - 59 - 50%. Credits are not awarded to students who do not achieve 50%.

Results of education:
Students acquire basic knowledge about the physiology of animals and humans, and about the importance of physiology in the study of related biological subjects.

Brief syllabus:
Basic physiological terms. Physiology of blood and blood-forming organs. Physiology of respiration. Thermoregulation. Physiology of the cardiovascular system. Physiology of the gastrointestinal tract. The position of the liver and its functions in the body. Physiology of nutrition and energy metabolism. General properties of conducting and excitable systems. The functions of the peripheral and central nervous system. Work of striated and smooth muscle. Functions of the sensory analyzers. Hormonal regulation. Physiology of reproduction. Physiology of excretion.

Literature:
Čalkovská, A.: Fyziológia človeka : pre nelekárske študijné programy. - 1. vyd. - Martin : Osveta, 2010. - 220 s. - ISBN 978-80-8063-344-8
Hill, R.W. et al.: Animal Physiology. 3rd ed., 2012, ISBN 978-0-87893-559-8
Kiss, J.: Élettan : Feladatok és megoldásaik. Budapest : Typotex, 2004. - 660s. - ISBN 963 9548 07 3.
Mysliveček, J., Trojan, S.: Fyziológie do kapsy. Praha : Triton, 2004. - 466s. - ISBN 80-7254-497-7
Mader, S. S.: Human biology. Wm. C. Brown Publishers, USA, Third edition 1992. 500 s. - ISBN 0-697-12333-2
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
Reece, W.R.: Fyziologie a funkční anatomie domácích zvířat. 2., rozšířené vydání, Vydavateľstvo: Grada, 2010, 473 strán, ISBN: 9788024732824

Rudas, P.: Az állatorvosi élettan alapjai. Budapest : Springer Hungarica Kiadó Kft., 1995. - 610 s. - ISBN 963 8455 08 X
Szentágothai, J.: Funkcionális anatómia I.-III. Budapest : Medicina Könyvkiadó, 2006. - 710, 600, 800. - ISBN 963 242 565 0

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

Notes:

Evaluation of subjects
Total number of evaluated students: 192

A	B	C	D	E	FX
33.33	18.75	23.96	8.85	9.9	5.21

Teacher: Dr. habil. PaedDr. Melinda Nagy, PhD.

Date of last update: 15.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ GEN1/15	**Name:** Genetics I

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: 2.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test - 100%. Final evaluation: A - 100 - 90% B - 89 - 80%, C - 79-70%, D - 69-60%, E - 59 - 50%. Credits are not awarded to students who do not achieve 50%.

Results of education:
Students acquire basic knowledge of heredity in plants animals and humans.

Brief syllabus:
Definition of basic terms. A brief history of the issue. Basis of the genetic terminology. Genetic code. The central dogma. Basis of regulation of genetic system. Mendel's laws. Classical genetics. Mutations.

Literature:
Borissza, E.: Ötösöm lesz genetikából. - Budapest : Calibra, 0. - 144. - ISBN 963 686 2117
Ferák, V., Sršeň, Š.: Genetika človeka. SPN, Bratislava, 1990. 488 s., ISBN 80-08-00349-9
Hraška, Š. a kol.: Základy genetiky. UKF Nitra, 1997. 230 s. - ISBN 80-8050-137-8.
Mohay, J.: Genetika (kislexikon). Natura, 1986. - 180 s. - ISBN 963 233 119 2
Poráčová, J., Nagy, M., Zahatňanská, M. et al.: Biometria živočíchov a človeka. Prešovská univerzita v prešove, FHPV, Univerzita J. Selyeho v Komárne, PF, Centrum excelentnosti ekológie, živočíchov a človeka, PU v Prešove, Prešov, 2011, p. 357, ISBN 978-80-555-0475-9
Rédei, P. Gy.: Genetika. Mezőgazdasági Kiadó, 1987. 830 s - ISBN 963 232 287 8
Snustad, P.D., Simmons, M.J.: Genetics, 6th Edition International Student Version. 2012, 784 pages, ISBN : 978-1-118-09242-2
Vodrážka, Z.: Biochemie. - 1. vyd. - Praha : Academia, 2007. - 190 s. - ISBN 978-80-200-0600-4.
Watson, J.D.: DNS az élet titka. - 1. vyd. - Budapest : HVG Könyvek, 2004. - 450s. - ISBN 963 7525 564

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

Notes:

Evaluation of subjects
Total number of evaluated students: 279

A	B	C	D	E	FX
17.92	16.13	20.07	21.15	19.35	5.38
Teacher: Dr. habil. PaedDr. Melinda Nagy, PhD.					
Date of last update: 27.06.2023					
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.					

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ HIC/15	**Name:** Hystology and Cytology
Types, range and methods of educational activities: **Form of study:** Lecture / Practical **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: 1.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Final test 50% Exercises: 50% Evaluation: A – 100-90%, B – 89-80%, C – 79-70%, D – 69-60%, E – 59-50%. Under 50% no credit will be given.	
Results of education: The student will gain knowledge of the cell, as the structural and functional base unit of the plants and animals furthermore get introduced to the structure, morphology and function of the different cells and tissues.	
Brief syllabus: The short history of cytology and histology. Stucture of a prokaryotic and an eukaryotic cell. Characterization of a plant cell, animal cell and fungal cell. The chemical composition of cells. The structure and functions of the cells: the biological membranes, the nucleus and nucleolus, lysosomes, microtubules, endoplasmic reticulum, mitochondria, plastids, ribosoms, Golgi apparatus. Cell reproduction: mitosis, meiosis, cytokinesis. Plant tissues: meristems, basic mechanical tissue, skin tissue, assimilating tissues, ventilating tissue, secreting mucus and tissue holder, tissue suppliers. Definition and characterization of the floem and xylem. Animal tissues: epidermis, connective tissue, muscle tissue, nerve tissue, etc.	
Literature: Bózner, A: Cytológia. Osveta, 1992. - 266. - ISBN 8021701684. Fazekas, Gy., Szerényi, G.: Biológia I.: Molekulák, élőlények, életműködések - 1. vyd. - Budapest : Scolar Kiadó, 2002. - 590s. Hudáková, A.: Histológia živočíchov. Bratislava : Univerzita Komenského v Bratislave, 1994. - 100. - ISBN 8022307297. Junqueira, L.C., Carneiro, J., Kelly, O.R.: Basic Histology. a LANGE medical book, 8. th edition, USA, Apleton and Lange, 1995 Kleban, J., Mikeš, J., Fedoročko, P.: Cytológia pracovný zošit na praktické cvičenia. UPJS, Košice, 2006, ISBN 80-7097-643-8 Konrádová, V., Vajner, L., Uhlík, J.: Histologie přednášky pro bakalařské studium. - 1. vyd. - Praha : HH, 2005. - 186 s. - ISBN 80 7319 009 5.	

Klusoňová, H., Lenčo, J.: Praktická cvičení a otázky ze základů cytologie a genetiky. Vydavateľstvo: Karolinum, 2009, ISBN: 9788024612119
Nagy, M.: Humánbiológia, Lilium Aurum, Dunaszerdahely, 2006, ISBN 80-8062-283-3.
Papp, M.: A növények szövetei és a szervek szövettana. - Debrecen : Kossuth Egyetemi Kiadó, 2003. - 210. - ISBN 0013794.

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

Notes:

Evaluation of subjects
Total number of evaluated students: 288

A	B	C	D	E	FX
21.18	21.18	27.43	9.03	20.14	1.04

Teacher: Ing. Pavol Balázs, PhD., PaedDr. Daniel Dancsa

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University

Name of the faculty: Faculty of Education

Code: KBIO/Bdb/OKB1/15	**Name:** Professional Conversation for Biologists I

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: 2

Recommended semester/trimester of study: 6.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final Exam: 100 points maximum. Grading: A – 100 - 90%, B – 89 - 80%, C – 79 - 70%, D – 69 - 60%, E – 59 - 50%. 0–49 Failed/Unsatisfactor.

Results of education:
Students learn the professional terminology.

Brief syllabus:
Professional conversations: Zoology, Botany, Chemistry. Genetics, Ethology, Laboratory practical, Cell biology, Anthropology.

Literature:
ĎURECHOVÁ, E.: Príručka prvej pomoci. 1. vyd. - Bratislava : PERFEKT a.s., 2003. 290s. ISBN 80-8046-223-2.
NAGY, M.: Humánbiológia. Komárno : Selye János Egyetem, 2006. 250 s. ISBN 8080622833.
NOVÁK, J. – SKALICKÝ, M.: Botanika : Cytologie, histologie, organologie, systematika. 2. vyd. - Praha : Powerprint, 2009.352 s. ISBN 978-80-904011-5-0.
PETŘVALSKÝ, V.: Zoológia. 3. vyd. Nitra : Slovenská poľnohospodárska univerzita, 2010. - 136 s. ISBN 978-80-552-0465-9.
TÓTH, Z.: Bevezetés a Kémiába : Fizikai-kémiai laboratóriumi gyakorlatok biológiaszakos halgatók számara. 1. vyd. - Debrecen : Kossuth Egyetemi Kiadó, 2002. 89 s.
WOLF, J.: ABC človeka. 1. vyd. - Praha : Orbis, 1977. 462s.

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

Notes:

Evaluation of subjects
Total number of evaluated students: 148

A	B	C	D	E	FX
37.16	18.92	11.49	15.54	12.84	4.05

Teacher:

Date of last update: 15.05.2023
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ PAC/15	**Name:** Comparative Anatomy of Chordates

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:
2 exams during the semester, each 25 points. A minimum of 25 points must be acquired during the semester to get accepted to the final exam.
Final exam 50 points.
Evaluation: A – 100-90%, B – 89-80%, C – 79-70%, D – 69-60%, E – 59-50%.,

Results of education:
The student will gain knowledge of the phylogenesis of the integument-, skeletal-, muscle-, nerve-, digestive-, the vascular-, respiratory-, urinary -, genital system and sensory organs.

Brief syllabus:
1. 1. The integumentary system of the chordates I.
2. 2. The integumentary system of the chordates II.
3. 3. The musculoskeletal system of the chordates I:
4. 4. The musculoskeletal system of the chordates II:
5. 5. The vascular system I
6. 6. The vascular system II. The heart of the vertebrates
7. 7. The respiratory system I.
8. 8. The respiratory system II. The lungs of the vertebrates.
9. 9. Sensory organs. The eye of the vertebrates
10. 10. Anatomy of chordates. The central nervous system of fish.
11. 11. The central nervous system of vertebrates.
12. 12. Vertebrate Morphology I.
13. 13. Vertebrate Morphology II.

Literature:
Beláková A., (1994): Rozmnožovanie a ontogenéza živočíchov. Vyd. UK, Bratislava ISBN 8022307319
Horváth L.,: Funkcionális anatómia.Nemzeti tankönyvkiadó, Budapest
Kriska Gy., Lőw P., (2012): Biológia érettségire felkészítő. Állati szervezetek. Nemzeti Tankönyvkiadó, 222. o. + DVD.
Zboray G., (szerk) (2010): Összehasonlító anatómiai praktikum I. - A gerinctelenek - Anamnia-Az alacsonyabbrendű gerincesek. Nemzeti Tankönyvkiadó.

Zboray G., (szerk) (2012): Összehasonlító anatómiai praktikum II. Amniota. Magasabbrendű gerincesek. ELTE Eötvös Kiadó Kft.
Zboray G., (2007): Összehasonlító anatómiai praktikum II. Amniota- 1. vyd. - Budapest : Nemzeti Tankönyvkiadó, Budapest, ISBN 978-963-19-6000-6
Zboray G.,, Kovács Zs.,, Kriska Gy., Molnár K., Pálfia Zs., (2005): Összehasonlító metszetanatómia. Nemzeti Tankönyvkiadó.

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

Notes:

Evaluation of subjects
Total number of evaluated students: 218

A	B	C	D	E	FX
38.99	27.98	14.22	11.93	2.75	4.13

Teacher: PaedDr. Daniel Dancsa

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ PED1/15	**Name:** Pedology
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: 2	
Recommended semester/trimester of study: 3.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Final Exam: 100 points maximum. Grading: A – 100 - 90%, B – 89 - 80%, C – 79 - 70%, D – 69 - 60%, E – 59 - 50%. 0–49 Failed/Unsatisfactor.	
Results of education: Main knowledge about soil properties, genesis, soil classification,and land evaluation. Evaluation of land resources in the Slovak Republic. Assesment of soil quality and properties. Knowledge about the role in ecosystem, soil functions and soil quality/health is achieved.	
Brief syllabus: Soil Definition and Origin, Construction and Composition. Soil Quality Physical Indicators. Physical and Chemical Properties of Soil. Soil classification. Soil Survey. Importance of soil to agriculture. Soil Management (Horticulture). Land use, land-use change and forestry. Land and Environment. Protected areas. Land in other sectors of the national economy. Sustainability of Soil Use.	
Literature: CSERNI, I.: Talajtan és agrokémia. 1. vyd. Kertészeti és Élelmiszeripari Egyetem : Kecskemét, 1995. 206 s. HANES, J. - POLÁČEK, Š.: Koloidná chémia pôdy. 1. vyd. Bratislava : Výskumný ústav pôdoznalectva a ochrany pôdy, 2002. 108 s. ISBN 80-85361-96-5. STEFANOVITS, P.- MICHÉLI, E.: A talajok jelentősége a 21. században - 1. vyd. Budapest : MTA Társadalomkutató Központ, 2005. 403s. ISBN 963 508 477 3. STREĎANSKÝ, J.: Zabezpečenie kvality životného prostredia. Nitra : Vysoká Škola Poľnohospodárska, 1997. 114 s. ISBN 80-7137-340-0. SZENDREI, G.: Talajtan. Egyetemi jegyzet. 1. vyd. Budapest : Elte Eötvös Kiadó, 1998. 300 s. ISBN 0003191.	
Language, knowledge of which is necessary to complete a course: hungarian, slovak	
Notes:	
Evaluation of subjects	

Total number of evaluated students: 0

A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

Teacher:

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ SZS-B/15	**Name:** Biology
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: KBIO/Bdb/HIC/15 and KBIO/Bdb/BOT1/15 and KBIO/Bdb/ZOO1/15 and KBIO/Bdb/BCH1/15 and KBIO/Bdb/BOT2/15 and KBIO/Bdb/GEN1/15 and KBIO/Bdb/ANT1/15 and KBIO/Bdb/BOT3/15 and KBIO/Bdb/TER1/15 and KBIO/Bdb/PAC/15 and KBIO/Bdb/TER2/15 and KBIO/Bdb/ZOO2/15 and KBIO/Bdb/FYZ/15 and KBIO/Bdb/FYR/15 and KBIO/Bdb/BCH2/15 and KBIO/Bdb/ZOO3/15	
Conditions for passing the subject: 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 Biology (combined) masters the basic content of the disciplines of the specialization.	
Brief syllabus:	
Literature: Study literature listed in information sheet of compulsory courses.	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak	
Notes:	
Evaluation of subjects Total number of evaluated students: 67	

A	B	C	D	E	FX
7.46	14.93	13.43	23.88	29.85	10.45

Teacher:	
Date of last update: 15.05.2023	
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.	

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ TER1/15	**Name:** Field Work in Botany
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: 4	
Recommended semester/trimester of study: 4.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: The student will make herbarium with at least 200 species. The exam is based on this herbarium. With random choice 30 species will be chosen that has to be recognized and scientifically named by the student. Evaluation: A: 30-29-28 B:27-26-25 C:24-23-22 D:21-20-19 E:18-17-16 Under 16 no credit will be given. Obilgatory report of the field trip.	
Results of education: The student will learn the basics of the creation of a herbarium, will be able to identify vascular plants with taxonomic key, and gain knowledge about the current nature conservation laws.	
Brief syllabus: Identification of vascular plants with taxonomic key. Creation of a herbarium. Current nature concervation laws.	
Literature: Dostál J., Červenka M., (1991): Veľký kľúč na určovanie vyšších rastlín I. SPN Bratislava ISBN 80-08-00273-5 Dostál J., Červenka M., (1992): Veľký kľúč na určovanie vyšších rastlín II. SPN Bratislava ISBN 80-08-00003-5 Simon T., (2004) : A magyarországi edényes flóra határozója. Nemzeti tankönyvkiadó, Budapest. ISBN 963 19 1226 4 Aktuálny zákon NR SR o ochrane prírody a krajiny a súvisiace vyhlášky MŽP SR.	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak	
Notes:	

Evaluation of subjects
Total number of evaluated students: 208

A	B	C	D	E	FX
23.56	17.79	10.58	11.06	29.33	7.69

Teacher: Ing. Pavol Balázs, PhD.

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ TER2/15	**Name:** Field Work in Zoology and Anthropology
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: 4	
Recommended semester/trimester of study: 6.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Individual report from the field exercise. Evaluation: A – 100-90%, B – 89-80%, C – 79-70%, D – 69-60%, E – 59-50%, Under 50% no credit will be given.	
Results of education: The student will classify the animals found with the help of a taxonomic key, also gains practical knowledge in osteo-antropologycal research.	
Brief syllabus: Creating small collection of invertebrates and vertebrates. Photographic documentation. Collecting animals with pitfall traps. Classification of the collected animals. Collecting and sorting of crop pests. Collecting and classification in different habitat types Practical understanding of the anthropological researches -cemetery excavation. -processing and classifying bones	
Literature: STANĚK, V. J.: Veľký obrazový atlas zvierat, - 5. vyd. - Bratislava : Vydavateľstvo Mladé Letá, 1983. - 592s ČIHÁK, R.: Anatomie I.-III. Avicenum Praha, 1987, 1989, 1997. ISBN 80-7169-970-5 FENEIS, H.: Anatomický obrazový slovník. Stuttgart : Georg Thieme Verlag, 1993. - 455s. - ISBN 80 7169 197 6 H.BATTHA, L. Növények és rovarok preparálása . NATURA, 1978. - 191. - ISBN 963 233 046 3.	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak	
Notes:	
Evaluation of subjects Total number of evaluated students: 179	

A	B	C	D	E	FX
74.86	21.23	3.35	0.0	0.0	0.56

Teacher: Dr. habil. PaedDr. Melinda Nagy, PhD., Ing. Pavol Balázs, PhD., PaedDr. Daniel Dancsa, RNDr. Eva Tóthová Tarová, PhD.

Date of last update: 15.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ VPB/15	**Name:** Scientific Work and Publish of Results in Biology

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: 2

Recommended semester/trimester of study: 5.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Study - 100%. 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:
Student acquire basic knowledge, habits and theoretical and practical skills required for work associated with the planning, research implementation in biology and publishing.

Brief syllabus:
The importance of scientific research. Planning research. Orientation in the scientific literature. The formulation of objectives and working hypotheses. The research methodology. Quantitative and qualitative research methods. Experiment. Fieldwork. Laboratory work. Execution of research. Treatment of results. The structure of scientific work. The form and arrangement of the various parts of the publication. Introduction and status of existing knowledge. Summarize and display the results. Discussion of results. Conclusions. Citation of references and bibliography creation. Annexes to scientific work. Presentation of results - lectures, posters, publications.

Literature:
ECCO, U.: Hogyan írjunk szakdolgozatot? Kairosz, 1987. - 255. - ISBN 9639137537
H.BATTHA, L. Növények és rovarok preparálása . NATURA, 1978. - 191. - ISBN 963 233 046 3.
CHAJDIAK, J.: Štatistika v Exceli. - 1. vyd. - Bratislava : Statis, 2002. - 159 s. - ISBN 80-85659-27-1.
KATUŠČÁK, D.: Ako písať vysokoškolské a kvalifikačné práce. 5. vyd. - Nitra : Enigma, 2008. - 164 s. - ISBN 978-80-89132-45-4
KUBÁNKOVÁ, V., HENDL, J.: Statistika pro zdravotníky : Zdravotnické aktuality - 1. vyd. - Praha : Avicenum, 1986. - s.
NAGY-GYÖRGY, J.: Valószínűségszámítás és statisztika példatár : POLYGON Jegyzettár - 1. vyd. - Szeged : Szegedi Egyetemi Kiadó POLYGON, 2010. - 111 s.
SILVERMAN, D.: Ako robiť kvalitatívny výskum /. - Bratislava : Ikar a.s., 2005. - 328 s. - ISBN 80-551-0904-4.
SOMSÁK, L.: Szerves kémiai praktikum I. - Debrecen : Kossuth Egyetemi Kiadó, 2004. - 230 s. - ISBN 0013788

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

Notes:

Evaluation of subjects
Total number of evaluated students: 55

A	B	C	D	E	FX
83.64	7.27	9.09	0.0	0.0	0.0

Teacher:

Date of last update: 15.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ ZET/15	**Name:** Fundamentals of Ecotoxicology

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: 2

Recommended semester/trimester of study: 6.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Passing the course is conditional on the successful participation in the test and oral examination. During the semester one written test for 40 points. Participation in the oral examination is conditional upon at least 50% of the points (min. 20 points) of the test. Final assessment: the proportion of oral examination and a written test : 60% - 40%. A - 100 - 90% B - 89 - 80%, C - 79-70%, D - 69-60%, E - 59 - 50%

Results of education:
After successful completion of this course, students will gain knowledge on the toxicology of environment, effects of environmental pollutants, biodegradation of xenobiotics in the organisms.

Brief syllabus:
1. Introduction. 2. The distribution of the pollution. 3. Toxicity, poison, types of toxic effects. 4. The interaction of chemicals, self-replicating toxicity. 5. Identification of pollutants, distribution and excretion of harmful substances. 6. Mutagenic, teratogenic and carcinogenic contaminants, toxins and their classification. 7. The toxic effect of the elements and their compounds in the body. 8. Toxic effects of selected types of organic compounds. 9. The pesticidal compounds - carbamates, organophosphates, organic chlorine compounds, pyrethroid compounds, pheromones. Herbicides, and heavy metals. 10. Radioactive substances, radiation, radiotoxicity, artificial radioactivity. 11. Preventive toxicology, hygiene regulations, exposure tests.

Literature:
TOLGYESSY, J. a kol., 1989: Chémia, biológia a toxikológia vody a ovzdušia. Veda SAV, Bratislava, 531s. ISBN 80-224-0034-3
CALOW, P.: Handbook of Ecotoxicology - 1. vyd. : Blackwell Science, 1998. - 885 s. - ISBN 0 632 04933 2.
PÉNZES, B.: Mérgező anyagok a környezetben. Budapest, Mezőgazdasági Kiadó, 1989. ISBN 9 632 34022 1
KVASNIČKOVÁ, D.: Životné prostredie - 1. vyd. Bratislava: Slovenské pedagogické nakladateľstvo, 2002. 160 s. ISBN 80-08-03341-X

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

Notes:

Evaluation of subjects
Total number of evaluated students: 124

A	B	C	D	E	FX
49.19	39.52	7.26	2.42	1.61	0.0

Teacher:

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ ZOO1/15	**Name:** Zoology I
Types, range and methods of educational activities: **Form of study:** Lecture / Practical **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: 1.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: Final test. Evaluation: A – 100-90%, B – 89-80%, C – 79-70%, D – 69-60%, E – 59-50%, Under 50% no credit will be given.	
Results of education: The student will gain knowledge about the animal taxons and their anatomy.	
Brief syllabus: Anatomy of the different taxonomical groups of animals. Anatomy of the animal organs. Important species from nature protection point of view. Overview of animal systems (parasites, coprofages, saprofages, vectors, pollenators). Comparison of characteristic features and organ systems of different taxonomical groups.Domestic animals.Genom usage of non-domestic animals.	
Literature: BAKONYI, G.: Álattan. Mezőgazda Kiadó. 2003. BELÁKOVÁ, A.: Rozmnožovanie a ontogenéza živočíchov. Bratislava : Univerzita Komenského v Bratislave, 1994. 80. ISBN 8022307319. CSÖRGŐ és mtsi szerk. Magyar madárvonulási atlasz. Kossuth Kiadó, 2009. KRISKA, G. - LŐW, P.: Biológia érettségire felkészítő. Állati szervezetek. Nemzeti Tankönyvkiadó, 222. o. + DVD. 2012. PETŘVALSKÝ, V.: Zoológia. 3. vyd. Nitra : Slovenská poľnohospodárska univerzita, 2010. 136 s. ISBN 978-80-552-0465-9. ZBORAY, G.: Összehasonlító anatómiai praktikum I. - A gerinctelenek - Anamnia-Az alacsonyabbrendű gerincesek. Nemzeti Tankönyvkiadó, 2010. ZBORAY, G.: Összehasonlító anatómiai praktikum II. Amniota. Magasabbrendű gerincesek. ELTE Eötvös Kiadó Kft., 2012. UJVÁROSI, L. - URÁK, I.: Állattani ismeretek. Ábel Kiadó, Kolozsvár, Románia, p. 260. 2008.	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak	

Notes:

Evaluation of subjects
Total number of evaluated students: 306

A	B	C	D	E	FX
29.41	24.18	20.59	9.48	12.42	3.92

Teacher: Ing. Pavol Balázs, PhD., Dr. habil. PaedDr. Melinda Nagy, PhD., PaedDr. Daniel Dancsa

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ ZOO2/15	**Name:** Zoology II

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

Number of credits: 4

Recommended semester/trimester of study: 4.

Level of study: I.

Prerequisites:

Conditions for passing the subject:
Final test.
Evaluation: A – 100-90%, B – 89-80%, C – 79-70%, D – 69-60%, E – 59-50%,
Under 50% no credit will be given

Results of education:
After completing the course the student will know the characteristics of different groups of invertebrates, representative species of each group and their significance for the humankind.

Brief syllabus:
Introduction into zoology.
Classification and nomenclature of Animals
Origin and evolution of zoological systmatics.
Modern zoological classification.
Protozoan phyla (Animal-like Protista) Classification of the Animal-like Protista, their economically and evolutionaly representatives.
Metazoa
Porifera. Sponges – general description and system.
Eumetazoa
The Radiate Animals: Cnidaria general description and system.
Bilaterian Animals
Plathelminthes, Entoprocta, Nemertiny, Nemathelmintes, Priapulida Sipulculida, Echiurida, Nemertiny, Annelida, Mollusca, Arthropoda, Crustacea, Myriapoda, Chelicerata, Hexapoda, Insecta, Tentaculata, Chaetognatha , Enteropreusta, Pogonofora, Echinodermata. general description and system. their economically important species

Literature:
BIHARI, Z. – CSORBA, G.: Magyarország emlőseinek atlasza. Kossuth Kiadó, 2007.
PECHENIK, J. E.: Biology of the Invertebrates. 6. vyd. - Boston : McGraw-Hill International, 2005. - 603s. - ISBN 978-0-07-128455-4.
PETŘVALSKÝ, V.: Zoológia. 3. vyd. - Nitra : Slovenská poľnohospodárska univerzita, 2010. 136 s. ISBN 978-80-552-0465-9.
UJHELYI, P.: A Kárpát-medence állatai. Kossuth Kiadó, 2005.

UJVÁROSI, L. - URÁK, I.: Állattani ismeretek. Ábel Kiadó, Kolozsvár, Románia, 2008, 260 s.

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

Notes:

Evaluation of subjects
Total number of evaluated students: 204

A	B	C	D	E	FX
26.96	28.92	15.2	10.78	14.22	3.92

Teacher: Ing. Pavol Balázs, PhD., Dr. habil. PaedDr. Melinda Nagy, PhD., PaedDr. Daniel Dancsa

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/Bdb/ ZOO3/15	**Name:** Zoology III
Types, range and methods of educational activities: **Form of study:** Lecture / Practical **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: 2 exams during the semester each 25 points. A minimum of 25 points must be acquired during the semester to get accepted to the final exam. Final exam 50 points. Evaluation: A – 100-90%, B – 89-80%, C – 79-70%, D – 69-60%, E – 59-50%,	
Results of education: After completing the course the student will know the characteristics of different groups of chordates, representative species of each group and their significance for the humankind.	
Brief syllabus: Chordata, Urochordata, Copelata ,Cephalochordata - General Characteristics and Classification Vertebrata – General Characteristics: the integument-, skeletal-, muscle-, nerve-, digestive-, the vascular-, respiratory-, urinary -, genital system and sensory organs. Evolution and classification of the vertebrates -Agnatha –Lampreys and Hagfishes: General Characteristics and Classification. -Gnathostomata: Chondrichthyes – Sharks, Skates and Rays: General Characteristics and Classification. -Osteichthyes: Bony Fishes: General Characteristics and Classification. -Amphibia: Caecilinans, Salamanders and Frogs: General Characteristics and Classification. -Reptilia: Turtles, Lizards, Snakes, Crocodiles: General Characteristics and Classification. -Aves: Birds: General Characteristics and Classification. -Mammalia: Mammals: General Characteristics and Classification.	
Literature: Bakonyi Gábor (szerk). (2003): Állattan. Mezőgazda Kiadó. Bihari Z., Csorba G., (2007): Magyarország emlőseinek atlasza. Kossuth Kiadó. Csörgő és mtsi szerk. (2009): Magyar madárvonulási atlasz. Kossuth Kiadó. Faragó S., (2000): Gerinces állatrendszertan. Nyugat-Magyarországi Egyetem Erdőmérnöki Kar, Sopron. Forró L., (szerk) (2007): A Kárpát-medence állatvilágának kialakulása. Magyar Természettudományi Múzeum, Budapest. Gaisler J., Zima J., (2007) : Zoologie obratlovcu, Academia, Praha, ISBN 9788020014849	

Harka Á., Sallai Z. (2004): Magyarország halai. Nimfea Természetvédelmi Egyesület.
Koščo J., (2008): Úvod do zoológie chordátov PU v Prešove FHPV ISBN 978-80-8068-630-7
Kriska Gy., Lőw P., (2012): Biológia érettségire felkészítő. Állati szervezetek. Nemzeti Tankönyvkiadó, 222. o. + DVD.
Puky M., Schád P., Szövényi G., (2005): Magyarország herpetológiai atlasza. Varangy Akció Csoport Egyesület, Budapest.
Ujhelyi P., (szerk.) (2005): A Kárpát-medence állatai. Kossuth Kiadó, 2005.
Ujvárosi L.,Urák, I., (2008): Állattani ismeretek..Ábel Kiadó, Kolozsvár, Románia, 260 s.
Forró László (szerk) (2007): A Kárpát-medence állatvilágának kialakulása. Magyar Természettudományi Múzeum, Budapest.

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

Notes:

Evaluation of subjects
Total number of evaluated students: 177

A	B	C	D	E	FX
24.86	25.99	19.77	10.17	16.95	2.26

Teacher: Ing. Pavol Balázs, PhD., Dr. habil. PaedDr. Melinda Nagy, PhD.

Date of last update: 15.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 14

A	B	C	D	E	FX
50.0	35.71	0.0	0.0	14.29	0.0

Teacher: Mgr. Alexandra Hengerics Szabó, PhD.

Date of last update: 12.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 12.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 32

A	B	C	D	E	FX
9.38	18.75	31.25	28.13	12.5	0.0

Teacher: prof. Róbert Mészáros, DSc.

Date of last update: 12.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 14

A	B	C	D	E	FX
57.14	21.43	7.14	7.14	0.0	7.14

Teacher: Mgr. Andrea Vargová, PhD.

Date of last update: 12.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 12.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 12.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: Mgr. Alexandra Hengerics Szabó, PhD.

Date of last update: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: Mgr. Alexandra Hengerics Szabó, PhD.

Date of last update: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: Mgr. Andrea Vargová, PhD.

Date of last update: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 31

A	B	C	D	E	FX
16.13	22.58	48.39	6.45	6.45	0.0

Teacher: prof. Róbert Mészáros, DSc., Attila Kardos, PhD., Dr. habil. PaedDr. György Juhász, PhD., Dr. habil. Imre Varga, PhD.

Date of last update: 12.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: Mgr. Alexandra Hengerics Szabó, PhD., Mgr. Andrea Vargová, PhD.

Date of last update: 12.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 12.05.2023	
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 12.05.2023	
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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:

Date of last update: 12.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: Mgr. Alexandra Hengerics Szabó, PhD.

Date of last update: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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:
Date of last update: 12.05.2023
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023	
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 26.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 12.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KBIO/ POZ/15	**Name:** Health Promoting
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: 3., 5.	
Level of study: I., II.	
Prerequisites:	
Conditions for passing the subject: Continuous assessment of studies - 50%, oral exam - 50%. 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: After completing the course the student knows the basic concepts, principles and programs of health promotion.	
Brief syllabus: Health behavior in children and adults in the European Union, with particular reference to Slovakia. Summary of terms and documents related to health education and health promotion. Characteristics of countrywide health promotion. Preparation of Health Promotion Programme, the role of health education by age groups.	
Literature: Pikó Bettina. 2007. A pozitív gondolkodás szerepe az egészség megtartásában. In: Kállai János, Varga József, Oláh Attila (szerk.): Egészségpszichológia a gyakorlatban Budapest, Medicina Könyvkiadó Zrt. Barabás Katalin (szerk.) (2006): Egészségfejlesztés - Alapismeretek pedagógusok számára, Medicina Könyvkiadó Zrt., 2006 Darvay Sarolta (szerk.): Tanulmányok a gyermekkori egészségfejlesztés témakörben, Eötvös Loránd Tudományegyetem, 2012, http://old.tok.elte.hu/kutatokozpont/node/42 Langford R, Bonell CP, Jones HE, Pouliou T, Murphy SM, Waters E, Komro KA, Gibbs LF,Magnus D, Campbell R. (2014): The WHO Health Promoting School framework for improving the health and well-being of students and their cademic achievement (Review), TheCochrane Library 2014, Issue 4, http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD008958.pub2/pdf	
Language, knowledge of which is necessary to complete a course: Hungarian or Slovak	
Notes:	

Evaluation of subjects
Total number of evaluated students: 25

A	B	C	D	E	FX
96.0	0.0	4.0	0.0	0.0	0.0

Teacher: Dr. habil. Sarolta Zsuzsanna Mészárosné Darvay, PhD.

Date of last update: 27.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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.	
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: 25.06.2023
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 379

a	n
98.94	1.06

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

Date of last update: 18.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 18.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: Gyöngyi Gál, PhD.

Date of last update: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 808

A	B	C	D	E	FX
61.26	22.03	9.53	3.84	3.34	0.0

Teacher:

Date of last update: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 358

A	B	C	D	E	FX
44.97	25.7	14.53	6.7	5.87	2.23

Teacher: Mgr. Nikolas Katona

Date of last update: 18.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 82

A	B	C	D	E	FX
56.1	21.95	13.41	2.44	3.66	2.44

Teacher: Dr. habil. Erika Kopp, PhD.
Date of last update: 18.05.2023
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 491	

a	n
98.37	1.63

Teacher: PaedDr. Tamás Török, PhD., prof. Dr. Béla István Pukánszky, DSc.
Date of last update: 18.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023					
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 18.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023					
Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.05.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 1275

A	B	C	D	E	FX
33.57	31.84	22.75	8.08	3.76	0.0

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

Date of last update: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, 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: 25.06.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.

INFORMATION SHEET

Name of the university: J. Selye University	
Name of the faculty: Faculty of Education	
Code: KPD/Uzb/ PPC1a/23	**Name:** Supporting pedagogical practice 1
Types, range and methods of educational activities: **Form of study:** Practical **Recommended extent of course (in hours):** **Per week:** 20 **For the study period:** 260 **Methods of study:** present	
Number of credits: 1	
Recommended semester/trimester of study: 5.	
Level of study: I.	
Prerequisites:	
Conditions for passing the subject: The conditions for completing the course: - active participation of the student in a teaching practice in a primary school (primary school) or a secondary school (secondary school), - participation of the student in assigned tasks and involvement in analysis and discussion during the teaching practice, - submission of a completed and validated PPC1 completion report, - Completion of observation sheets from the teaching practice in primary or secondary school: lesson observation records, - Student reflection on PPC1a. Evaluation of the submitted documents (max. 50 points): o Content page 35 points, o formal aspect 15 points. Total student workload: 1 credit = 30 hours - 20 hours of participation in the teaching practice (contact hours): of which 10 hours of hospitalization and 10 hours of analysis; 2 hours of introductory meeting; 8 hours of preparation of observation sheets and reflection. Final assessment: - passed = 50 - 100% (25 - 50 points) - not passed = 49 - 0% (0 - 24 points)	
Results of education: Knowledge: - The student is competent to observe lessons in elementary and middle school. - The student is able to document observed lessons in grade 2 elementary and middle school. - The student is able to navigate some school documents. Skills: - The student is able to identify diverse manifestations of structural elements of personality, psychological processes of the student in the teaching process and in social interactions. - The student will describe the didactic aids, communication technologies and means used in the teaching process and the possibilities of applying computers, interactive whiteboards, the	

Internet, specific teaching programmes and software, dynamic systems and interactive teaching materials and portals in teaching subjects at the 2nd level of primary and secondary school.
- It identifies teachers' teaching and communication styles and professional skills.
Competencies:
- The student is able to conceive his/her own work practices for effective observation.
- Takes a position on observed phenomena based on prior theoretical knowledge.
- Understands the relationship between the principles of teaching and the consequences - the effectiveness of learning.

Brief syllabus:
Basic attributes of observation.
Observation and evaluation of the interior and exterior of a training primary and secondary school.
Recognition and work with pedagogical documentation of the classroom.
Observation of lessons in a 2nd grade elementary school and an SHS.
Analysis of observed lessons together with the trainee teacher.
Documenting the progress of each lesson observed.
Structure of observation sheets.
Completion of observation sheets.

Literature:
Štátny vzdelávací program pre 2. stupeň základnej školy v Slovenskej republike ISCED 2 – nižšie sekundárne vzdelávanie. https://www.statpedu.sk/files/articles/dokumenty/statny-vzdelavaci-program/isced2_spu_uprava.pdf
Štátny vzdelávací program pre gymnázia v Slovenskej republike ISCED 3A – Vyššie sekundárne vzdelávanie. https://www.statpedu.sk/files/articles/dokumenty/statny-vzdelavaci-program/isced3_spu_uprava.pdf
Zákon č. 245/2008 Z. z. – Zákon o výchove a vzdelávaní (školský zákon) a o zmene a doplnení niektorých zákonov. Bratislava : MŠ SR, 2008 (respektíve aktuálny školský zákon).
Aktuálny vnútorný predpis UJS: Zásady realizácie pedagogickej praxe na Pedagogickej fakulte UJS
Gadušová, Z. a kol.: Mentor Training : Ostrava : Ostravská univerzita, 2021. - online, 268 s. - ISBN 978-80-7599-294-9.

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

Notes:

Evaluation of subjects
Total number of evaluated students: 98

A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0

Teacher: Mgr. Katarína Szarka, PhD., PaedDr. Tamás Török, PhD.

Date of last update: 29.11.2023

Approved by: Dr. habil. PaedDr. Melinda Nagy, PhD., prof. Dr. Béla István Pukánszky, DSc., doc. RNDr. Róbert Gyepes, PhD.