

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ CDS/15	<b>Name:</b> Chemical and Didactical Software
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week: 2 For the study period: 26</b> <b>Methods of study:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester, the students can gather 60% of the maximum points from the active participation of the course and homeworks, while the remainder 40% of the points can get from project realization and its presentation. 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%.	
<b>Results of education:</b> Upon successful completion of the course the students will acquire skill in selected software and aptitude to integrate them into the education process.	
<b>Brief syllabus:</b> 1. Basis of the cheminformatics. 2. Simulation of the physical properties of the molecule. Overview of the quantum-chemistry software. (Gaussian, Abinit, MOLCAS). 3. Vizualization the simulation and the results of the theoretical calculations. (ChemCraft, Molden). 4. Office suite programs to support the theacher professional work (MS-WORD, MS-PowerPoint) 5. Graphical editors in chemistry (ACD/ChemSketch, Avogadro) 6. Simulation and vizualization in virtual chemistry laboratory. (Virtual Lab, Yenka, virtuálny mikroskop NASA) 7. MindMapping software in chemistry conceptual learning (FreeMind, iMindMap) 8. Aplication eduROM – Chémia I.,II. 9. Learning by playing software in chemistry education. (PurposeGame, ThinkLink, prostriedky Discovery Education, interaktívne PT) 10. E-learning a on-line chemistry learning contents (Planéta vedomosti – RealikaEducatio, naučteviac.sk, sulinet.hu) 11. Interactive white board and its tools in chemistry education. 12. Website as a source of chemistry learning contents. Student project. 13. Presentation and defence of the students‘ project. The final evaluation of the course.	
<b>Literature:</b> KALAŠ, Ivan et al. Premeny školy v digitálnom veku. Bratislava: SPN – Mladé letá,s.r.o.,2013. ISBN 978-80-10-02409-4. Košice: pre UIPŠ vydal elfa, s.r.o., 2010. ISBN 978-80-8086-143-8. BRESTENSKÁ, Beáta et al. Premena školy s využitím IKT. Využitie IKT v danom predmete: spoločná časť.	

JAVOROVA, Katarína et al. Využitie informačných a komunikačných technológií v predmete chémia pre základné školy. Učebný materiál – modul3. Košice: pre UIPŠ vydal elfa, s.r.o., 2010. ISBN 978-80-8086-157-5.

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 7

A	B	C	D	E	FX
71.43	14.29	14.29	0.0	0.0	0.0

**Teacher:** Mgr. Katarína Szarka, PhD., Dr. habil. PaedDr. György Juhász, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ DC1/15	<b>Name:</b> Didactics of Chemistry I.
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week: 2 For the study period: 26</b> <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester, the students will be delivered two written tests each of maximum 30 points, while he/she can gather another 40 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%.	
<b>Results of education:</b> Upon successful completion of the course, the students will acquire theoretical knowledge about general didactics point the chemistry education.	
<b>Brief syllabus:</b> 1. Introduction. Didactics as science. Object of Didactics. General and Subject-oriental Didactics. 2. Characterization the education system in Slovakia. 3. National and school education program – education field „Človek a príroda“. Curriculum framework. Chemistry in curriculum framework. Chemistry educational standards. Cross curricular themes in education field „Človek a príroda“. Requirement for chemistry leaving exam. 4. Teaching plan. Lesson plan. Curriculum and its structure. Textbooks, workbooks, learning and teaching equipments, didactical materials and tools – in generally. 5. Teaching process. Education goals. The conditions and phases of the education process. 6. The 1st writting test. 7. The teaching principles. 8. Classification of the teaching methods and their description. 9. The organization forms of the classroom lesson in chemistry education. 10. Teaching and learning equipments, didactical materials and tools in chemistry education. 11. Teacher’s lesson plan. How to prepare for the teaching process? 12. The 2nd writting test.	
<b>Literature:</b> ALBERT,S. Didaktika. Dunajská Streda: LiliumAurum, 2005. 250s. ISBN 8080622523 DILLINGER, M. Kapitoly z didaktiky chémie. - 1. vyd. Bratislava : Slovenské pedagogické nakladateľstvo, 1977. 336 s. FALUS,I. Didaktika. - Budapest : Nemzeti Tankönyvkiadó, 2003. - 552. - ISBN 9631952967 VESZPRÉMI,L. Didaktika. - Gyula : APC-Stúdió BT., 2000. 281s. ISBN 963913530X	

PACHMANN,E. Formy a metody výuky chemie - Didaktika III. - 1. vyd. - Praha : Ústřední ústav provzdělávání pedagogických pracovníků, 1976. 137 s.

PETLÁK,E. Kapitoly zo súčasnej didaktiky Bratislava: IRIS, 2005.190s. ISBN 8089018890

PETLÁK,E. Všeobecná didaktika.- 1. vyd. Bratislava: IRIS, 2004. 316 s. ISBN 80-89018-64-5

TUREK,I. Moderné trendy vo výučbe na vysokých školách.- 1. vyd. Komárno : Univerzita J. Selyeho, 2006. 496s. ISBN 80-89234-13-5

TUREK,I. Základy didaktiky vysokej školy. Komárno : Selye János Egyetem, 2005. 317s. ISBN 8080733015

TUREK,I. Zvyšovanie efektívnosti vyučovania. Bratislava : Metodické centrum, 1997. 316s. ISBN 8088796490

<http://www.statpedu.sk/sk/Statny-vzdelavaci-program/Statny-vzdelavaci-program-pre-2-stupen-zakladnych-skol-ISCED-2/Clovek-a-priroda.alej>

<http://www.statpedu.sk/sk/Statny-vzdelavaci-program/Statny-vzdelavaci-program-pre-gymnaziaISCED-3a/Clovek-a-priroda.alej>

[http://www.statpedu.sk/files/documents/cp-2013-2014/cp\\_chemia\\_2013\\_2014.pdf](http://www.statpedu.sk/files/documents/cp-2013-2014/cp_chemia_2013_2014.pdf)

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 7

A	B	C	D	E	FX
14.29	28.57	42.86	14.29	0.0	0.0

**Teacher:** Mgr. Katarína Szarka, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ DC2/15	<b>Name:</b> Didactics of Chemistry II.
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week: 2 For the study period: 26</b> <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester, the students will be delivered two written tests each of maximum 30 points, while he/she can gather another 40 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%.	
<b>Results of education:</b> Upon successful completion of the course, the students will acquire competencies to create complex methodological analysis of selected chapters and create models of knowledge mediation in topics of general and inorganic chemistry in elementary and high school chemistry education	
<b>Brief syllabus:</b> 1. Introduction. Objectives of chemistry as subject in elementary and high school education. 2. Content characterization of general chemistry and inorganic chemistry in upper section of primary education ISCED 2 - and secondary education level. ISCED 3A 3. The cognitive and concept formation process in general and inorganic chemistry in both-primary and secondary -level of education (ISCED2 a ISCED3A) 4. Didactic analysis and interpretation of two topics: "Chemistry around us" and "System of materials" 5. Didactic analysis and interpretation of the follow topics: "Composition of materials" (ISCED 2) and "Chemical bond" (ISCED 3A) 6. Didactic analysis and interpretation of topics: "Structure of atom and ions" (ISCED2, ISCED3A) and "Chemical bond" (ISCED 3A). 7. Didactic analysis and interpretation of themes: "Periodic table of elements"(ISCED 2, ISCED 3A) and "nomenclature of inorganic compounds" (ISCED 3A). 8. Didactic analysis and interpretation of theme: transformation of materials- physical and chemical changes (ISCED 2) 9. Didactic analysis and interpretation of themes: "Course of chemical reactions", "chemical reaction equations and their types" (ISCED 3A). 10. Didactic analysis and inerpretation of themes: protolytic reaction and redox reactions (ISCED 2, ISCED 3A).	

11. Didactic analysis and interpretation of themes: "metals (s-block elements a d-block elements) a nonmetals and metalloids (p-block elements) (ISCED 2, ISCED 3A).  
12. Presentation of final projects.

**Literature:**

DILLINGER, M. Kapitoly z didaktiky chémie. - 1. vyd. Bratislava : Slovenské pedagogické nakladateľstvo, 1977. 336 s.  
KIRJUSKIN, D.M. A kémia tanításának módszertana. Budapest : Tankönyvkiadó, 1963. - 404. - ISBN 0008178  
LEVECSENKO, V.V. A kémia tanítása az iskolában. Budapest : Közoktatásügyi Kiadóvállalat, 1951. – 170s. ISBN 0009897  
PACHMANN, E. Formy a metody výuky chemie - Didaktika III. - 1. vyd. - Praha : Ústřední ústav pro vzdělávání pedagogických pracovníků, 1976. 137 s.  
<http://www.statpedu.sk/sk/Statny-vzdelavaci-program/Statny-vzdelavaci-program-pre-2-stupen-zakladnych-skol-ISCED-2/Clovek-a-priroda.alej>  
<http://www.statpedu.sk/sk/Statny-vzdelavaci-program/Statny-vzdelavaci-program-pre-gymnaziaISCED-3a/Clovek-a-priroda.alej>  
[http://www.statpedu.sk/files/documents/cp-2013-2014/cp\\_chemia\\_2013\\_2014.pdf](http://www.statpedu.sk/files/documents/cp-2013-2014/cp_chemia_2013_2014.pdf)

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 7

A	B	C	D	E	FX
0.0	28.57	42.86	28.57	0.0	0.0

**Teacher:** Dr. habil. PaedDr. György Juhász, PhD., Mgr. Katarína Szarka, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ DC3/15	<b>Name:</b> Didactics of Chemistry III.
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week: 2 For the study period: 26</b> <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester, the students will be delivered two written tests each of maximum 30 points, while he/she can gather another 40 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%.	
<b>Results of education:</b> Upon successful completion of the course, the students will acquire competencies to create complex methodological analysis of selected chapters and create models of knowledge mediation in topics of organic chemistry and biochemistry in elementary and high school chemistry education	
<b>Brief syllabus:</b> 1. Introduction. Objectives of chemistry as subject in elementary and high school education. 2. Content characterization of organic chemistry and biochemistry in upper section of primary education ISCED 2 - and secondary education level. ISCED 3A 3. The cognitive and concept formation process in bio- and organic chemistry in both-primary and secondary -level of education (ISCED2 a ISCED3A) 4. Didactic analysis and interpretation of follow themes: „Introduction in the organic chemistry“, „types of chemical bonds in the organic compounds “ (ISCED2 a ISCED3A) and „Isomerism“ (ISCED 3A). 5. Didactic analysis and interpretation of theme:“Nomenclature of organic compounds“ (ISCED2 a ISCED3A). 6. Didactic analysis and interpretation of themes: „ Alkanes, alkenes, alkynes (ISCED 2, ISCED 3A) and alkadien“(ISCED 3A). 7. Didactic analysis and interpretation of topics: Natural source of saturated and unsaturated hydrocarbons“ (ISCED 3A). 8. Didactic analysis and interpretation of theme: „Aromatic hydrocarbons“(ISCED 3A). 9. Didactic analysis and interpretation of theme „Hydrocarbon derivates“ (ISCED 2, ISCED 3A). 10. Didactic analysis and interpretation of theme : „Biochemicals of living organisms“ (ISCED 2, ISCED 3A).	

11. Didactic analysis and interpretation of topic: „Quality of life and health“ (ISCED 2, ISCED 3A).  
12. Presentation of final projects.

**Literature:**

DILLINGER, M. Kapitoly z didaktiky chémie. - 1. vyd. Bratislava : Slovenské pedagogické nakladateľstvo, 1977. 336 s.  
KIRJUSKIN, D.M.A kémia tanításának módszertana. Budapest : Tankönyvkiadó, 1963. - 404. - ISBN 0008178  
LEVECSENKO, V.V. A kémiatanítása az iskolában. Budapest : Közoktatásügyi Kiadóvállalat, 1951. – 170s. ISBN 0009897  
PACHMANN, E. Formy a metody výuky chemie - Didaktika III. - 1. vyd. - Praha : Ústřední ústav pro vzdělávání pedagogických pracovníků, 1976. 137 s.  
<http://www.statpedu.sk/sk/Statny-vzdelavaci-program/Statny-vzdelavaci-program-pre-2-stupen-zakladnych-skol-ISCED-2/Clovek-a-priroda.alej>  
<http://www.statpedu.sk/sk/Statny-vzdelavaci-program/Statny-vzdelavaci-program-pre-gymnaziaISCED-3a/Clovek-a-priroda.alej>  
[http://www.statpedu.sk/files/documents/cp-2013-2014/cp\\_chemia\\_2013\\_2014.pdf](http://www.statpedu.sk/files/documents/cp-2013-2014/cp_chemia_2013_2014.pdf)

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 4

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

**Teacher:** Mgr. Andrea Vargová, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ DEK/15	<b>Name:</b> Assessment for Learning and Assessment of Learning in Chemistry Education
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> Upon successful completion of the course, the students will acquire theoretical knowledge about assessment process and the assessment trends in modern pedagogy. He/she will able to implement theoretical knowledge into chemistry teaching process during his/her pedagogical practice.	
<b>Brief syllabus:</b> <ol style="list-style-type: none"><li>1. Introduction. Basic concepts of the assessment process. Assessment forms and methods. Classification process.</li><li>2. The approaches in assessment process. Assessment of Learning(AofL), Assessment for Learning (AfL) and Assessment as Learning (AasL).</li><li>3. Characterization of the Assessment of Learning Process.</li><li>4. Characterization of the Assessment for Learning Process. Assessment for Learning and authentic assessment tools in chemistry education.</li><li>5. Making the Assessment for Learning and authentic assessment tools in chemistry education.</li><li>6. Worksheet with exercises, test questions, problem formulations and their role in chemistry education.</li><li>7. Making worksheet and writing test for chemistry education.</li><li>8. Problem-based tasks in chemistry education.</li><li>9. Selected methods of diagnostical assessment.</li><li>10. Portfolio a e-portfolio in chemistry education.</li><li>11. Presentation and defence of students homework. The final evaluation of the course.</li></ol>	
<b>Literature:</b> AMONASVILI, S.A. Az iskolai értékelés nevelőhatása. 1. vyd. Budapest : Tankönyvkiadó, 1987. 263 s. ISBN 963 18 0358 9 BARABÁSI, T. Tanítás tanulási és tanulás tanulási alapismeretek. 1. vyd. Kolozsvár : Kolozsvári Egyetemi Kiadó, 2008. 231 s. ISBN 978-973-610-704-7	

BURJAN, V. Tvorba a využívanie školských testov. EXAM – Info č.1-7. On-line: [http://www.burjanoskole.sk/wp-content/uploads/documents/Tvorba\\_testov\\_komplet.pdf](http://www.burjanoskole.sk/wp-content/uploads/documents/Tvorba_testov_komplet.pdf)

LAVICKÝ, T. Tvorba a využívanie školských testov-učebný text pre PVPZ a PV. Prešov: MPC on-line: <http://www.mcpc.sk/downloads/Publikacie/PrirodPred/PPCHE200501.pdf>

MAKÁDI, M. A kompetenciaalapú pedagógia : lehetőségei a tanítási-tanulási folyamatban. 1. vyd. Szeged : Mozaik Kiadó, 2009. - 136 s. - ISBN 978 963 697 614 9

SLAVÍK, J. Hodnocení v současné škole : Východiska a nové metody pro praxi. - 1. vyd. - Praha : Portál, 1999. - 190 s. - ISBN 80-7178-262-9

TUREK, I. Zvyšovanie efektívnosti vyučovania. Bratislava : Metodické centrum, 1997. 316s. ISBN 8088796490

VIDÁKOVICH, T. Diagnosztikus pedagógiai értékelés. Budapest : Akadémiai Kiadó, 1990. 232. ISBN 9630559676

ZELINA, M. Stratégie a metódy rozvoja osobnosti : Metódy výchovy. 2. vyd. - Bratislava : Iris, 1996. - 234 s. - ISBN 80-967013-4-7

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 4

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

**Teacher:** Mgr. Katarína Szarka, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ DP1/15	<b>Name:</b> Technical and Didactical Aspects of Chemistry Laboratory Practical Education I.
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week: 2 For the study period: 26</b> <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> After successful completion of the course student can technically and methodologically manage chemical laboratory practice, also acquired skill in implementing demonstration experiments in various form and master the didactic analysis and create models of student experiments in chemistry teaching.	
<b>Brief syllabus:</b> <ol style="list-style-type: none"><li>1. Introduction. Didactical interpretation of occupational safety and health regulation during the chemical laboratory practice</li><li>2. Characterization of school chemical experiments- their types and division. Characterization of student's competencies</li><li>3. Characterization and maintenance of school laboratory equipments , laboratory glassware, aids and chemicals. Terminology of laboratory equipments and technics, and their didactic interpretation in chemistry teaching.</li><li>4. Range and systematization of basic equipments, chemicals in equipment store- administration and updating of chemical inventory .</li><li>5. Development and consolidation of manual skills and habits during the work with chemicals. Didactic interpretation of basic laboratory operations .</li><li>6. Didactic interpretation of demonstration experiments. Demonstration experimets carried out with screening, modeling of chemical experiments using IKT/DT.</li><li>7. Didactic interpretation of student's experiments. Adaptation of project methody and IBST methody. (Inquiry Based Science Teaching).</li><li>8. Experimets realized in the field. „Portable laboratory"and their didactic interpretation.</li><li>9. Implementation of laboratory measuring instruments and computer aided laboratory techniques in the chemistry teaching. The basic principals in good laboratory practice.</li><li>10. Assessment of student's work in chemical laboratory</li></ol>	

## 11. Final evaluation

### Literature:

ČUMOVÁ, K. – PROKŠA, M. Chémia pre 8. a 9. ročník základných škôl . Súbor alternatívnych experimentov k učebnému textu - doplnujúci text pre triedy s rozšíreným vyučovaním matematiky a prírodovedných predmetov. Program PHARE „Obnova vzdelávacieho systému " Inovačný fond 1. vyd.: PROJEKT 041, 1997. 71 s.

DILLINGER, M. Kapitoly z didaktiky chémie. - 1. vyd. Bratislava : Slovenské pedagogické nakladateľstvo, 1977. 336 s.

KIRJUSKIN, D.M. A kémia tanításának módszertana. Budapest : Tankönyvkiadó, 1963. - 404. - ISBN 0008178

LEVECSENKO, V.V. A kémia tanítása az iskolában. Budapest : Közoktatásügyi Kiadóvállalat, 1951. – 170s. ISBN 0009897

LÉVAI, J. Kísérletek könyve. Tessloffés Babilon Kiadó, 2001. 130. ISBN 9639182796

PACHMANN, E. Formy a metody výuky chemie. Didaktika III. 1. vyd. Praha : Ústřední ústav pro vzdělávání pedagogických pracovníků, 1976. 137 s.

ROMANOVÁ, D. Chémia pre 7. ročník základných škôl a 2. ročník gymnázií s osemročným štúdiom . 1. vyd. - Bratislava: EXPOL PEDAGOGIKA, s.r.o., 2010. 79 s. ISBN 978-80-8091-218-5

ROMANOVÁ, D. Chémia pre 6. ročník základných škôl a 1. ročník gymnázií s osemročným štúdiom . 1. vyd. Bratislava: EXPOL PEDAGOGIKA, s.r.o., 2009. 79 s. ISBN 978-80-8091-181-2

RÓZSAHEGYI, M. – WAJAND, J. 575 kísérlet a kémia tanításához. 3. vyd. Budapest : Nemzeti Tankönyvkiadó Rt., 1998. 646 s. ISBN 963 18 8512 7

RÓZSAHEGYI, M. – WAJAND, J. Kémia itt, kémia ott, kémia mindenhol! Budapest : Nemzeti Tankönyvkiadó, 1995. 236. ISBN 9631867919

VICENOVÁ, H. Chémia pre 8. ročník základných škôl a 3. ročník gymnázia s osemročným štúdiom . 1. vyd. Bratislava: EXPOL PEDAGOGIKA, s.r.o., 2011. 112 s. ISBN 978-80-8091-223-9

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

### Notes:

### Evaluation of subjects

Total number of evaluated students: 7

A	B	C	D	E	FX
71.43	14.29	0.0	14.29	0.0	0.0

**Teacher:** Ing. Magdaléna Hugyivárová, Mgr. Andrea Vargová, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ DP2/15	<b>Name:</b> Technical and Didactical Aspects of Chemistry Laboratory Practical Education II.
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week: 2 For the study period: 26</b> <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> After successful completion of course student master didactic analysis and through chemical experiments can transfer knowledge of selected thematic units of chemistry for ISCED2 and ISCED3 education, also acquired skill in implementing interesting demonstration experiments and managing students laboratory work. After successful completion of the course the student is able to carry out chemical experiments from everyday life.	
<b>Brief syllabus:</b> <ol style="list-style-type: none"><li>1. Introduction. Basic principals of good laboratory practice. Occupational safety.</li><li>2. Didactic interpretation of school experiments connected with themes chemistry around us (ISCED 2) and system of materials. (ISCED 3A)</li><li>3. Didactic interpretation of experiments from theme: Transformation of materials-physical and chemical changes. (ISCED 2 and ISCED 3).</li><li>4. Didactic interpretation of experiments from topic: Factors affecting the reaction rate. (ISCED 2 and ISCED 3).</li><li>5. Didactic interpretation of experiments : Protolytic reactions (ISCED 2 and ISCED 3).</li><li>6. Didactic interpretation of experiments: redox reactions (ISCED 2 and ISCED 3).</li><li>7. Didactic interpretation of experiments from selected topics of inorganic chemistry (ISCED 2 and ISCED 3).</li><li>8. Didactic interpretation of experiments from selected topics of organic chemistry (ISCED 2 and ISCED 3).</li><li>9. Didactic interpretation of experiments from selected topics of biochemistry. (ISCED 2 and ISCED 3).</li><li>10. Didactic interpretation of experiments from selected topics of analytical chemistry (ISCED 2 a ISCED 3).</li><li>11. Chemical experiments from everyday life and their application in teaching of chemistry.</li></ol>	

## 12. Final evaluation

### Literature:

ČUMOVÁ, K. – PROKŠA, M. Chémia pre 8. a 9. ročník základných škôl . Súbor alternatívnych experimentov k učebnému textu - doplňujúci text pre triedy s rozšíreným vyučovaním matematiky a prírodovedných predmetov. Program PHARE „Obnova vzdelávacieho systému " Inovačný fond 1. vyd.: PROJEKT 041, 1997. 71 s.

DILLINGER, M. Kapitoly z didaktiky chémie. - 1. vyd. Bratislava : Slovenské pedagogické nakladateľstvo, 1977. 336 s.

KIRJUSKIN, D.M. A kémia tanításának módszertana. Budapest : Tankönyvkiadó, 1963. - 404. - ISBN 0008178

LEVECSENKO, V.V. A kémia tanítása az iskolában. Budapest : Közoktatásügyi Kiadóvállalat, 1951. – 170s. ISBN 0009897

LÉVAI, J. Kísérletek könyve. Tessloffés Babilon Kiadó, 2001. 130. ISBN 9639182796

PACHMANN, E. Formy a metody výuky chemie. Didaktika III. 1. vyd. Praha : Ústřední ústav provzdělávání pedagogických pracovníků, 1976. 137 s.

ROMANOVÁ, D. Chémia pre 7. ročník základných škôl a 2. ročník gymnázií s osemročným štúdiom . 1. vyd. - Bratislava: EXPOL PEDAGOGIKA, s.r.o., 2010. 79 s. ISBN 978-80-8091-218-5

ROMANOVÁ, D. Chémia pre 6. ročník základných škôl a 1. ročník gymnázií s osemročným štúdiom . 1. vyd. Bratislava: EXPOL PEDAGOGIKA, s.r.o., 2009. 79 s. ISBN 978-80-8091-181-2

RÓZSAHEGYI, M. – WAJAND, J. 575 kísérlet a kémia tanításához. 3. vyd. Budapest : Nemzeti Tankönyvkiadó Rt., 1998. 646 s. ISBN 963 18 8512 7

RÓZSAHEGYI, M. – WAJAND, J. Kémia itt, kémia ott, kémia mindenhol! Budapest : Nemzeti Tankönyvkiadó, 1995. 236. ISBN 9631867919

VICENOVÁ, H. Chémia pre 8. ročník základných škôl a 3. ročník gymnázia s osemročným štúdiom. 1. vyd. Bratislava: EXPOL PEDAGOGIKA, s.r.o., 2011. 112 s. ISBN 978-80-8091-223-9

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

### Notes:

### Evaluation of subjects

Total number of evaluated students: 4

A	B	C	D	E	FX
75.0	0.0	25.0	0.0	0.0	0.0

**Teacher:** Ing. Magdaléna Hugyivárová, Mgr. Andrea Vargová, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ DTK/15	<b>Name:</b> ICT in Chemistry Education
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week: 2 For the study period: 26</b> <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> Upon successful completion of the course, the students will meet the properties and attributes of the information society. They will be able to compare traditional education vs. education in digital age. The student can describe requirements of the information society for the education process. They will be able to characterize the basic components of the selected ICT use for education purpose. The students can implement their IT knowledge into chemistry education process on both ISCED 2 and ISCED 3A level of the education.	
<b>Brief syllabus:</b> 1. Introduction. Comparison attributes of the traditional school and digital school. 2. Description of the information society. History path preview of the information society from the beginning until now. 3. Characterization of the concepts: communication, digitalization, informatization, globalization, the digital competencies - differences between people/students in digital knowledge, the risks of on-line and virtual world, copyright and plagiarism. 4. Cognitive learning theories in digital age. Learning styles changes - digital tools to support learning process. 5. Chemistry and digital competencies, e-learning materials, e-Learning, m-Learning, learning software – characterization. 6. The 1st writing test. 7. Basic tools of ICT. 8. History of ICT. 9. Mobile digital ICT in education. 10. Multimedia – its didactical aspects in chemistry education. 11. Interactive communication during the learning process – social websites, chat, blogging, vlogging etc.	

12. Presentation of students' homework. The final evaluation of the course.					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b>					
Total number of evaluated students: 7					
A	B	C	D	E	FX
28.57	28.57	14.29	28.57	0.0	0.0
<b>Teacher:</b> Mgr. Katarína Szarka, PhD.					
<b>Date of last update:</b> 14.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ FDK/15	<b>Name:</b> Methods of Development of Chemistry Education Didactics
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> Upon successful completion of the course the students will acquire theoretical and practical knowledge about problem-based learning in generally and in chemistry education. He/she becomes acquainted with the mission and managing of subject oriented competitions in science education in primary and secondary school. The students will be able to do with talented students in chemistry and with student whom weak point is the chemistry as a school subject.	
<b>Brief syllabus:</b> 1. Introduction. Student's personality. Differentiation, individualization and personalization of the learning process in chemistry. 2. How to approach talented students? How to support talented students' development? 3. Theoretical classroom problem-based learning in chemistry. 4. Practical laboratory or outside problem-based learning in chemistry. 5. The mission and managing of subject oriented competitions in science education in primary and secondary school. 6. Worksheet example of chemistry olympiad. 7. Worksheet example of correspondence competitions. 8. Making chemistry worksheet to support the talented students' development. 9. Preparation the students for leaving chemistry exam. 10. How to approach the weak students and support their development in chemistry? 11. Teaching and lesson plan to support students development in chemistry. 12. The final evaluation of the course.	
<b>Literature:</b> RÓZSAHEGYI, M. Érettségi felvételi feladatok - Kémia. 1. vyd. Szeged : Mozaik Oktatási Stúdió, 1996. 144 s. ISBN 963 697 017 3	

SILNÝ, P. et al. Úlohy a modely : usmerňovania riešenia úloh zo všeobecnej. 1. vyd. Bratislava : EXPOL pedagogika, spol. s.r.o., 1999. 171 s. ISBN 80-967957-7-5  
VILLÁNYI, A. Ötösöm lesz kémiából : Példatár . 1. vyd. Budapest : Novotrade Kiadó, 1990. 192 s. ISBN 963 586 093 X  
VILLÁNYI, A. Ötösöm lesz kémiából : Megoldások. 1. vyd. Budapest : Novotrade Kiadó, 1990. 422 s. ISBN 963 585 093 X  
<http://www.iuventa.sk/sk/Olympiady/Olympiady-a-sutaze/CHO.alej>  
<http://chem.korsemsk/>  
<http://www.equark.sk/index.php?cl=branch&iid=9>

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 7

A	B	C	D	E	FX
42.86	0.0	42.86	0.0	14.29	0.0

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

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ IAK/15	<b>Name:</b> Foreign Chemical Extraction of Food-stuffs
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester a writing test is compulsory, when the maximum points are 50. Moreover, another 50 points can be achieved from the essays and project works. The conditions for the successful recognition of the course are the collection of 50 points (maximum points are 50 + 50 = 100), i.e. 50% performance. 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).	
<b>Results of education:</b> After the successful accomplishment of his/her studies, students can utilize his/her knowledge of inorganic and organic chemistry in order to understand the mechanism of the activity of artificial additives which can be found in our foodstuff. He/she will realize what is the aim and importance of the monitoring these artificial additives in our foodstuffs. Students will be able to interpret the relationships between these additives, their quality marks, and he/she will be able to evaluate their positive and negative effects.	
<b>Brief syllabus:</b> 1. The role and importance of chemicals with foreign origins 2. The raw materials of foodstuffs. Their importance, application and utilization for human consumption. The importance of the foodstuff components for our healthy foods. How to prepare our students for healthy life style 3. The human foodchain. The importance of healthy foods in the view of our biological developments 4. The importance of the education of our future chemistry teachers 5. The basic materials of our foodstuffs, their importance and utilization for the humanbody. The importance of the composition of our food in the development of healthy life style of the young generation 6. The importance of the human foodchain. What are the key issues in the view of our biological development 7. The expertise of the chemistryteachers of our future generation 8. The rules of the human foodchain. The importance of food consumption in view of the periods of our biological developments 9. The expertise of the future generations of the chemistry teachers 10. The role of the individuals in the foodchain. The function of foods and their ranking from the view of chemistry education	

11. The most important bioelements, their role in the human body
12. Quality control of our foodstuffs. Personality character of the future generation of chemistry teachers
13. Qualitative characterization of the artificial additives
14. Quantitative characterization of the artificial additives
15. How to detect the natural components of our foodstuff in order to preserve the healthy foodchain for the future generation
16. Characterization and evaluation of the common food additives in the view of chemistry
17. Characterization of artificial additives, their mutagenic, teratogenic and carcinogenic effects from the view of a chemistry teacher
18. The presence of pesticides, herbicides and heavy metals in our foodstuffs, their interactions
19. Foodstuff regulations in Slovakia. Normaccontrols, patent rules. The role of chemistry teachers in the future

**Literature:**

- PRÍBELA, A.: Analýza cudzorodých látok v požívatinách - 1. vyd. - Bratislava : ALFA, Vydavateľstvo technickej a ekonomickej literatúry, n.p., 1974. - ISBN 80 227 0374 5.
- 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
- PRÍBELA, A.: Základy analýzy potravín – Edičné stredisko SVŠT Bratislava, 1977.
- PRUGAR, J., PRUGAROVÁ, A.: Dusičnany v zelenine - Príroda, vydavateľstvo kníh a časopisov, Bratislava 1985. - 152 s.
- TÖLGYESSY, J. a kol.: Chémia, biológia a toxikológia vody a ovzdušia - 2. vyd. Bratislava : VEDA, 1989. 536 s. ISBN 80 224 0034 3

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 4

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

**Teacher:** doc. Ing. Ondrej Hegedús, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ JCH/15	<b>Name:</b> Nuclear Chemistry
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester a 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).	
<b>Results of education:</b> By successfully finishing this course, students will be familiar with the basis of nuclear and radiochemistry, including the usage and handling of radioactive materials	
<b>Brief syllabus:</b> 1. Elementary particles, nucleus, isotopes, isotones, isobars 2. Radioactivity — basic features, kinetics 3. Types of the radioactive radiation: $\alpha$ - $\beta$ - $\gamma$ -decay 4. Radioactive decay chains 5. Natural and artificial radioactivity 6. Radiometric dating 7. Detection and measuring radioactivity 8. Interactions of the radioactive decay with matter 9. Consequences of the radioactivity. Dosimetry. Limits and quantities 10. Peaceful utilization of the radioactive decay. Nuclear power station, and their risks 11. Nuclear weapons	
<b>Literature:</b> GREENWOOD, N. N., EARNSHAW, A.: Chemie prvku I a II. ISBN 80 85427 38 9 GREENWOOD, N. N., EARNSHAW, A., A.: Az elemek kémiája II. a III.- Budapest : Nemzeti Tankönyvkiadó, 2004. ISBN 963 19 5255 x GREENWOOD, J.: Activity box - A resource book for teachers of young students : Cambridge University Press, 1997. - 120. - ISBN 0521 49870 8	
<b>Language, knowledge of which is necessary to complete a course:</b>	
<b>Notes:</b>	

**Evaluation of subjects**

Total number of evaluated students: 7

A	B	C	D	E	FX
0.0	42.86	42.86	14.29	0.0	0.0

**Teacher:** Dr. habil. Imre Varga, PhD.**Date of last update:** 14.06.2016**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ KCH/15	<b>Name:</b> Coordination Chemistry
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester, the students will be delivered two written tests each of maximum 30 points, while he/she can gather another 40 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%.	
<b>Results of education:</b> Upon successful completion of the course, the students will acquire knowledge about the structure bonding properties, isomers and classification of coordination complexes.	
<b>Brief syllabus:</b> 1. Chemical Bonds (Ionic, Covalent and Coordinational). 2. Crystal-field Theory. Ligand-Field Theory. 3. Donor-acceptor bonds. The Lewis Theory of Acids and Bases. 4. The Concept of Central Atom and Ligands. The Coordination Number. 5. Classification of Ligands. 6. Pearson's Theory of hard and soft Acids and Bases. 7. Denticity and Hapticity of Ligands. Chelates. 8. Ligand-Field Splitting. The Spectrochemical and nephelauxetic row of Ligands. 9. $\sigma$ - a $\pi$ -coordination. Back-donation. 10. Nomenclature of Coordination Complexes. 11. Isomers of Coordination Complexes. 12. Low-spin and high-spin Complexes. 13. Overview of the most important $\sigma$ - a $\pi$ -complexes.	
<b>Literature:</b> GREENWOOD, N. N., EARNSHAW, A.: Chemie prvku I a II. ISBN 80-85427-38-9 GREENWOOD, N. N., EARNSHAW, A.: Az elemek kémiája II. a III. Budapest : Nemzeti Tankönyvkiadó, 2004 ISBN 963 19 5255 x PLESCH, G., TATIERSKY, J.: Systematická anorganická chémia. 1 vyd. Bratislava : Omega Info, 2004 ( <a href="http://anorganika.fns.uniba.sk/~plesch/Systemanorgchem.pdf">http://anorganika.fns.uniba.sk/~plesch/Systemanorgchem.pdf</a> )	
<b>Language, knowledge of which is necessary to complete a course:</b>	

**Notes:****Evaluation of subjects**

Total number of evaluated students: 7

A	B	C	D	E	FX
85.71	14.29	0.0	0.0	0.0	0.0

**Teacher:** doc. RNDr. Róbert Gyepes, PhD., Gábor Dibó, PhD.**Date of last update:** 14.06.2016**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ KIK/15	<b>Name:</b> Chemical Literature and Sources for The Educational Practice for Teacher
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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).	
<b>Results of education:</b> By successfully finishing this course, students will have a broad overview of the main sources of chemical information. They will have the basic ability in managing the scientific and special expertise in his/her future, pedagogical digital reading–writing carrier. Furthermore, it is very important for the students to be acquainted with the importance of the usage the literature and databases of of the practice of chemistry.	
<b>Brief syllabus:</b> 1. The internet for the chemists 2. Practical usage and application basic monographs (Gmelin, Beilstein, Patai, etc.) for the chemistry teachers of the future 3. Scientific papers and their importance for the chemistry teachers of the future 4. Abstracting literature (Chemical Abstracts) 5. Standards, legal issues, patents 6. Introduction to the chemical databases. Free and paid databases, and their utilization in chemistry teaching 7. Preparation of scientific projects and applications 8. Evaluation of the scientific performance in chemistry 9. Presentation of the results of scientific research — BSc, MSc, scientific papers, seminars, conference presentations (oral and posters) 10. Citations, how to use citation protocols in the practice of the next chemistry teachers 11. Defense of the final project	
<b>Literature:</b> ZELOVÁ, A. et al.: Písanie záverečnej práce. Košice : Technická univerzita v Košiciach, 2001. 48s. ISBN 8070997273 Yecheskel, W.: Hogyan használjuk a kémia irodalmat : Gyakorlati útmutató. ISBN 963 10 6735 1	

Chemical Information Sources ([http://en.wikibooks.org/wiki/Chemical\\_Information\\_Sources](http://en.wikibooks.org/wiki/Chemical_Information_Sources))

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 4

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

**Teacher:** prof. Róbert Mészáros, DSc.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ KSM/15	<b>Name:</b> Methodology of Calculuses in Chemistry Education
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester, the students will be delivered two written tests each of maximum 25 points (it means max. 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%.	
<b>Results of education:</b> Upon successful completion of the course, the students will be able to do the complex didactical analysis of the learning content "chemical calculuses" and can do preparation for classroom lesson in primary- and secondary education.	
<b>Brief syllabus:</b> 1. Introduction. Didactical analysis of the learning content "chemical calculuses" on ISCED 2 and ISCED 3A level of the chemistry education. 2. Didactical analysis and rendition the learning content Physical-chemical quantities, base quantities (ISQ), units. 3. Didactical analysis and rendition the conceptions: amount of substance, size of an ensemble of elementary entities, relative atomic and molecular mass, volume, relationships between physical quantities. 4. Didactical analysis and rendition the learning content: Calculations by chemical formulas. 5. Didactical analysis and rendition the learning content: solution, mass- and mole fraction. 6. Didactical analysis and rendition the learning content: Molar concentration, molality. 7. The 1st writing test. 8. Didactical analysis and rendition the learning content: volume fraction of the solutions, mixtures contained more components, density of the solutions. 9. Didactical analysis and rendition the learning content: solubility, quantification of the solubility of the ionic compounds in water. 10. Didactical analysis and rendition the learning content: calculations needed to prepare solutions at given concentration. 11. Didactical analysis and rendition the learning content: chemistry calculuses by reaction rates. 12. The 2nd writing test.	

**Literature:**

NÄSER, K.H. Fizikai-kémiai számítások - 2. vyd. Budapest: Műszaki Könyvkiadó, 1971. 411 s.

MARKO, M. Kémiai példák és feladatok - 1. vyd. Bratislava : SPN, 1974. 293s.

NÄSER, K.H. Physikalisch-chemische Rechenaufgaben - 1. vyd. - Leipzig : VEB Deutscher Verlag, 1970. 378 s.

ULICKÁ, L. Příklady zo všeobecnej a anorganickej chémie : Edícia Chemickej literatúry - 1. vyd. Bratislava: ALFA, vydavateľstvo technickej a ekonomickej literatúry, n.p., 1984. 200 s.

VILLÁNYI, A. Kémia. Budapest: Calibra, 1998. ISBN 96 31 62048 4

VILLÁNYI, A. Ötösöm lesz kémiából : Példatár - 1. vyd. Budapest: Novotrade Kiadó, 1990. 192 s. ISBN 963 586 093 X

**Language, knowledge of which is necessary to complete a course:****Notes:****Evaluation of subjects**

Total number of evaluated students: 4

A	B	C	D	E	FX
0.0	0.0	25.0	75.0	0.0	0.0

**Teacher:** doc. Ing. Ondrej Hegedűs, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ MAM/15	<b>Name:</b> Motivational and Active Learning Methods in Chemistry Education
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester, the students can gather 60% of the maximum points from the active participation of the course and homeworks, while the remainder 40% of the points can get from project realization and its presentation. 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%.	
<b>Results of education:</b> Upon successful completion of the course, the students will acquire theoretical knowledge about motivational and active learning process and will able to implement their knowledge into their teaching process and further pedagogical practice.	
<b>Brief syllabus:</b> 1. Introduction. The philosophy of LLL. Motivation to LLL. Motive and motivation – its types and their description. The motives to learn chemistry. 2. Constructivism. Classroom lesson by constructivist way – the role of teacher and student. Communication as a motivational, activizational and management tool of teacher . 3. Characterization the active learning methods in chemistry. 4. Simple active learning methods in classroom chemistry lesson. 5. Application of the simple active learning methods in classroom chemistry lesson. 6. Cooperative learning. 7. Application of the cooperative learning methods in chemistry education. 8. Problem-based learning. Problem-based chemistry worksheet. 9. Problem solving models in chemistry education. 10. Characterization of project management – in generaly. Project methods in education. 11. Project-based learning in chemistry. 12. Presentation and defence the students‘ projects. The final evaluation of the course.	
<b>Literature:</b> HEGEDŰS, G. et al. Projektpedagógia. 1. vyd. Kecskemét : Kecskeméti Főiskola Tanítóképző Főiskolai Kar, 2002. 223 s. ISBN 963 7294 42 2 KAGAN, S.- KAGAN, M. Kagan kooperatív tanulás. 1. vyd. Budapest : Önkonet, 2009. 1726 s. ISBN 978-963-86623-5-4 KALÁŠ, Ivan et al. Premeny školy v digitálnom veku. Bratislava: SPN – Mladé letá, s.r.o., 2013. ISBN 978-80-10-02409-4. Košice: pre UIPŠ vydal elfa, s.r.o., 2010. ISBN 978-80-8086-143-8.	

MAKÁDI, M. A kompetencia alapú pedagógia : lehetőségei a tanítási-tanulási folyamatban. 1. vyd. Szeged : MozaikKiadó, 2009. - 136 s. - ISBN 978 963 697 614 9

MUNDSACK, A. Hogyan tanuljunk? : Kulcs a sikeres tanuláshoz. 1. vyd.: Panem, 2006. 228 s. ISBN 963 545 4309

RADNÓTI, K. A projekt pedagógia, mint az integrált nevelés egy lehetséges eszköze. 1. vyd. Budapest: Educatio Társadalmi Szolgáltató Közhasznú Társaság, 2008. - 330 s. - ISBN 978-963-9795-13-6

RÉTHY, E. Motiváció a tanításiórán. 1. vyd. Budapest : Tankönyvkiadó, 1978. 103 s. ISBN 963 17 3677 6

TOMKOVÁ, Anna et al. Učíme v projektech - 1. vyd. - Praha : Portál, 2009. - 173 s. - ISBN 978-80-7367-527-1

TUREK, I. Zvyšovanie efektívnosti vyučovania. Bratislava : Metodické centrum, 1997. 316s. ISBN 8088796490

ZELINA, M. Aktivizácia a motivácia žiakov na vyučovaní. Prešov: Krajský pedagogický ústav v Prešove, 1991. 73s. ISBN 0006427

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 7

A	B	C	D	E	FX
42.86	42.86	14.29	0.0	0.0	0.0

**Teacher:** Mgr. Katarína Szarka, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ OPC/15	<b>Name:</b> Organoelement Chemistry
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 2 <b>For the study period:</b> 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester 2 writing tests are compulsory: the maximum points are $2 \times 25 = 50$ . 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).	
<b>Results of education:</b> After finishing his/her studies, the students became familiar with the atomic structure, bonding theories, and basis of metalorganic chemistry. We will focusing on the practical application of metalorganic compounds, especially their applications in the catalytic processes	
<b>Brief syllabus:</b> <ol style="list-style-type: none"><li>1. History of organometallic chemistry. Discovery of ferrocene</li><li>2. Definition of organoelement chemistry</li><li>3. Categories of the ligands.</li><li>4. Nomenclature of organoelement compounds</li><li>5. Geometry of organoelement compounds</li><li>6. Nomenclature of organoelement compounds</li><li>7. Typical reactions of organoelement compounds</li><li>8. Organometallic compounds of non-transition metals</li><li>9. Organometallic compounds of transition metals</li><li>10. Catalytic reactions of organometallic compounds. Homogeneous and heterogeneous catalysis</li><li>11. Organometallic chemistry. Ziegler–Natta catalysts, its discovery</li></ol>	
<b>Literature:</b> GREENWOOD, N. N., EARNSHAW, A.: Chemie prvku I a II. ISBN 80-85427-38-9 GREENWOOD, N. N., EARNSHAW, A.: Az elemek kémiája II. a III. Budapest : Nemzeti Tankönyvkiadó, 2004 ISBN 963 19 5255 x PLESCH, G., TATIERSKY, J.: Systematická anorganická chémie. 1 vyd. Bratislava : Omega Info, 2004 ( <a href="http://anorganika.fns.uniba.sk/~plesch/Systemanorgchem.pdf">http://anorganika.fns.uniba.sk/~plesch/Systemanorgchem.pdf</a> )	
<b>Language, knowledge of which is necessary to complete a course:</b>	

**Notes:****Evaluation of subjects**

Total number of evaluated students: 4

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

**Teacher:** prof. Róbert Mészáros, DSc., Gábor Dibó, PhD.**Date of last update:** 14.06.2016**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ PPX2/15	<b>Name:</b> Pedagogical Practice II.
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> 20s <b>Methods of study:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> Active participation in the teaching practice will be carried out complying with the principles outlined by the UJS PF regulations of teaching practice..	
<b>Results of education:</b> The student will be able to observe, evaluate and analyse the class activity during the teaching practice and the methodology of elementary and secondary school teaching on the basis of the pedagogical-didactic principles applicable at elementary and secondary schools. The student will be able to teach a class independently.	
<b>Brief syllabus:</b> Direct experience of the didactic and educational principles of elementary and secondary education in the actual environment and in actual interaction with learners and students. Observation and analysis of teaching activity. Acquisition of the special methodology of teaching English as a foreign language at the elementary and secondary school level in the light of the contemporary aspects and didactics (based on individual conception). Application of pedagogical approaches focusing on the learners' personality. Expected elements of the applied methodology include creativity, independence, individualization and complementarity.	
<b>Literature:</b> Cooper, R. – Lavery, M. – Rinvoluceri, M.: Video. Oxford: Oxford University Press, 1991. Dudeney, G.: The Internet and the Language Classroom. Cambridge: CUP, 2007. Hyland, Ken: Second Language Writing. Cambridge : University Press, 2010. Madsen, H. S.: Techniques in Testing. Oxford: Oxford University Press, 1983. Riddel, D.: Teach Yourself – TEFL. London: Hodder Education, 2001. Silberstein, Sandra: Techniques and resources in teaching reading. Oxford : Oxford University Press, 2003. Ur, Penny: Teaching Listening Comprehension. Cambridge, United Kingdom : Cambridge University Press, 2002. Windeatt, S. – Hardisty, D. – Eastment, D.: The Internet. Oxford: OUP, 2000.	
<b>Language, knowledge of which is necessary to complete a course:</b>	
<b>Notes:</b>	

**Evaluation of subjects**

Total number of evaluated students: 2

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

**Teacher:** prof. Dr. Béla István Pukánszki, DSc., Mgr. Katarína Szarka, PhD.**Date of last update:** 14.06.2016**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ PPX3/15	<b>Name:</b> Pedagogical Practice III.
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> 20s <b>Methods of study:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> Active participation in the teaching practice will be carried out complying with the principles outlined by the UJS PF regulations of teaching practice	
<b>Results of education:</b> The student will be able to observe, evaluate and analyse the class activity during the teaching practice and the methodology of elementary and secondary school teaching on the basis of the pedagogical-didactic principles applicable at elementary and secondary schools. The student will be able to teach a class independently.	
<b>Brief syllabus:</b> Direct experience of the didactic and educational principles of elementary and secondary education in the actual environment and in actual interaction with learners and students. Observation and analysis of teaching activity. Acquisition of the special methodology of teaching English as a foreign language at the elementary and secondary school level in the light of the contemporary aspects and didactics (based on individual conception). Application of pedagogical approaches focusing on the learners' personality. Expected elements of the applied methodology include creativity, independence, individualization and complementarity.	
<b>Literature:</b> <ul style="list-style-type: none"> <li>• Cooper, R. – Lavery, M. – Rinvolutri, M.: Video. Oxford: Oxford University Press, 1991.</li> <li>• Dudeney, G.: The Internet and the Language Classroom. Cambridge: CUP, 2007.</li> <li>• Hyland, Ken: Second Language Writing. Cambridge : University Press, 2010.</li> <li>• Riddell, D.: Teach Yourself – TEFL. London: Hodder Education, 2001.</li> <li>• Silberstein, Sandra: Techniques and Resources in Teaching Reading. Oxford : Oxford University Press, 2003.</li> <li>• Ur, Penny: Teaching Listening Comprehension. Cambridge, United Kingdom : Cambridge University Press, 2002.</li> <li>• Windeatt, S. – Hardisty, D. – Eastment, D.: The Internet. Oxford: OUP, 2000.</li> </ul>	
<b>Language, knowledge of which is necessary to complete a course:</b>	
<b>Notes:</b>	
<b>Evaluation of subjects</b>	

Total number of evaluated students: 3

A	B	C	D	E	FX
0.0	33.33	66.67	0.0	0.0	0.0

**Teacher:** prof. Dr. Béla István Pukánszki, DSc., Mgr. Katarína Szarka, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KCH/CHdm/ PPX4/15		<b>Name:</b> Pedagogical Practice IV.			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> 40s <b>Methods of study:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of study:</b> 4.					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b> Active participation in the teaching practice will be carried out complying with the principles outlined by the UJS PF regulations of teaching practice					
<b>Results of education:</b> The student will be able to observe, evaluate and analyse the class activity during the teaching practice and the methodology of elementary and secondary school teaching on the basis of the pedagogical-didactic principles applicable at elementary and secondary schools. The student will be able to teach a class independently.					
<b>Brief syllabus:</b> Direct experience of the didactic and educational principles of elementary and secondary education in the actual environment and in actual interaction with learners and students. Observation and analysis of teaching activity. Acquisition of the special methodology of teaching English as a foreign language at the elementary and secondary school level in the light of the contemporary aspects and didactics (based on individual conception). Application of pedagogical approaches focusing on the learners' personality. Expected elements of the applied methodology include creativity, independence, individualization and complementarity					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 4					
A	B	C	D	E	FX
75.0	25.0	0.0	0.0	0.0	0.0
<b>Teacher:</b> prof. Dr. Béla István Pukánszki, DSc., Mgr. Katarína Szarka, PhD.					
<b>Date of last update:</b> 14.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ SAM/15	<b>Name:</b> Spectral Methods
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 2 <b>For the study period:</b> 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> Upon successful completion of the course the students will acquire knowledge about the most common spectral methods used in current research and will get familiar with employing individual methods for selected chemical problems	
<b>Brief syllabus:</b> 1. Introduction to methods for determining the structure of compounds. Qualitative and quantitative analysis. 2. The Electromagnetic field. Electromagnetic radiation and its generation. The spectrum of electromagnetic radiation. 3. Interaction of atoms and molecules with external fields (electric, magnetic and electromagnetic). 4. Emission methods and analysis. 5. Absorption methods and analysis. 6. Thermoanalytical methods. 7. The Zeeman effect. Magnetic resonances. 8. Nuclear spin. Nuclear magnetic resonance. Application of NMR in chemistry and medical practice. 9. Electron spin. Chemistry of radicals. Electron paramagnetic resonance. 10. Electron microscopy. 11. Diffraction methods. Electron and X-ray diffraction. Sources of radiation. Particle accelerators. 12. Single-crystal and powder diffraction.	
<b>Literature:</b> SZABÓ, A.: Analitikai módszerek a klinikai kémiában, Budapest, Akadémiai Kiadó, ISBN 963 05 3395 2	

BRDIČKA, R., DVOŘÁK, J.: Základy fyzikální chemie – 1. vyd. - Praha ACADEMIA, 1977. – 850 s.  
ROSICKÝ J.: Termická analýza , MŠMT ČR Praha, 1989. – 160 s.  
KUŽEL, R.: Advances in Structure Analysis. ISBN 80-901748-6-8  
WALTER, J. MOORE, et al.: Fyzikální chemie - 4. vyd. - Praha SNTL, 1979. - 974 s.  
PATAKI, L., ZAPP, E.: Analitikai kémia - A minőségi és mennyiségi analízis alapjai - 2. vyd. - Budapest Tankönyvkiadó, 1974. – 520 s.

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 7

A	B	C	D	E	FX
28.57	0.0	28.57	28.57	14.29	0.0

**Teacher:** doc. RNDr. Róbert Gyepes, PhD., doc. Ing. Ondrej Hegedús, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KCH/CHdm/SSM/15		<b>Name:</b> Chemistry Teaching Theory and Practice			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> <b>Methods of study:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of study:</b> 3., 4..					
<b>Level of study:</b> II.					
<b>Prerequisites:</b> KCH/CHdm/DTK/15 and KCH/CHdm/DC1/15 and KCH/CHdm/JCH/15 and KCH/CHdm/TCV/15 and KCH/CHdm/MAM/15 and KCH/CHdm/CDS/15 and KCH/CHdm/DC2/15 and KCH/CHdm/DP1/15 and KCH/CHdm/KCH/15 and KCH/CHdm/SAM/15 and KCH/CHdm/DC3/15 and KCH/CHdm/DEK/15 and KCH/CHdm/DP2/15 and KCH/CHdm/KIK/15 and KCH/CHdm/OPC/15 and KCH/CHdm/PPX4/15					
<b>Conditions for passing the subject:</b> 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%.					
<b>Results of education:</b> 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. The graduate is able to deal with this content as the product of human (scientific) activity and is able to design didactic intents and purposes in this context. In addition to managing teaching competences the graduate is able to participate in the development of methodological materials for teaching chemistry.					
<b>Brief syllabus:</b> Selected chapters from Chemistry Disciplines. General and Special methodology of teaching chemistry.					
<b>Literature:</b> The suggested literatures available within information paper of the obligatory subjects.					
<b>Language, knowledge of which is necessary to complete a course:</b> Slovak and Hungarian language					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 4					
A	B	C	D	E	FX
50.0	25.0	25.0	0.0	0.0	0.0
<b>Teacher:</b>					

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteeprof. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ TCV/15	<b>Name:</b> Chemical Structures and Theory of Chemical Bond
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 2 / 1 <b>For the study period:</b> 26 / 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> Upon successful completion of the course the students will acquire knowledge about the electron structure of atoms and molecules and about the quantum-chemical description of chemical bonds. Students will also be familiar with the role of symmetry in chemistry and basic of group theory	
<b>Brief syllabus:</b> 1. Axioms of Quantum Theory. 2. Quantum numbers. The Pauli Exclusion Principle. 3. Time-independent and time-dependent Schrödinger equation. 4. The Born-Oppenheimer approximation. The Variational Principle. 5. Valence-Bond Theory. 6. MO LCAO. SCF. 7. Delocalized and localized Orbitals. Bonding, non-bonding and antibonding Molecular Orbitals. Hypo- and hypervalent molecules. Multicentre bonds. Classification of MO's — $\sigma$ -, $\pi$ - a $\delta$ -MO. 8. Methods of DFT. 9. Hypersurface of Potential Energy and its Role in Chemistry. Transition States. Excited States of Molecules. 10. Multiconfigurational Methods in Theoretical Chemistry. 11. Relativistic Effects in their Importance in Chemistry. 12. Symmetry in Chemistry. Symmetry Elements and Operations. Axioms of Group Theory. Reducible and Irreducible Representations. 13. Point Groups. Space Groups. Group Notations — Schönflies and Hermann-Mauguin. 14. Direct Product of Representations. Selection Rules in Spectroscopy.	
<b>Literature:</b>	

ČÁRSKY P., PANCÍŘ J., ZAHRADNÍK R.: Molekulové orbitály v chemii. Academia Praha, 1974. – 140 s.  
FIŠER J.: Úvod do kvantové chemie. Academia Praha, 1983. – 247 s.  
HAVLAS Z., ZAHRADNÍK R.: Řešené úlohy z chemické reaktivity. Academia Praha, 1987. – 193 s.  
LOUB J.: Krystalová struktura, symetrie a rentgenová difrakce: UK Praha, 1987. – 142 s.  
KYSEL O.: Elektronová struktúra molekulových systémov I. ISBN 80-8050-763-5.  
ULICKÝ, L.: Štruktúra tuhej fázy. SVŠCHT, 1972. – 128 s.

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 7

A	B	C	D	E	FX
14.29	14.29	28.57	0.0	42.86	0.0

**Teacher:** doc. RNDr. Róbert Gyepes, PhD., Dr. habil. PaedDr. György Juhász, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ TKT/15	<b>Name:</b> Planning and Realization of Chemical School Projects and Excursions
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> 20s <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> Student after successful completion of learning process will be able to creatively plan and implement excursions, also gains knowledge in project management which will be able to apply in practice of future chemistry teacher. It strengthens the sense of responsibility in relation to healthy lifestyle and perception of the aesthetic values of environment. It deepens, develops and reinforces the scale of value of the future teacher in environment education. The active participation in seminars form the personality of the future teacher of chemistry , develop the ability to cooperate in group , divide tasks and take responsibility.	
<b>Brief syllabus:</b> <ol style="list-style-type: none"><li>1. Basics of project management.</li><li>2. Phase of project –incubation phase and project planning .</li><li>3. Phase of project – execution and presentation of project</li><li>4. Phase of project– evaluation and correction of project</li><li>5. Excursion as an option of meaningful learning of chemistry.</li><li>6. Excursion as a tool of practical education.</li><li>7. Preparation for the excursion and explore possibilities and conditions of educational influences.Preparation of thematical excursion.</li><li>8. Organizational and technical aspects of chemical themed excursions</li><li>9. Planning process of chemical excursions. Making time-theme schedule.</li><li>10. Realization process of chemical excursion.</li><li>11. Evaluation of participation in thematical excursions.</li><li>12. Proceeds of excursion for the future teachers of chemistry</li><li>13. Advantages and disadvantages of domestic and foreign excursions.</li></ol>	
<b>Literature:</b>	

KALHOUS, Zd.: Školní didaktika. 2. vyd. - Praha : Portál, 2009. - 448 s. - ISBN 978 80 7367 571 4

DILLINGER, M. a kol.: Kapitoly z didaktiky chémie. 1. vyd. - Bratislava : Slovenské pedagogické nakladateľstvo, 1977. - 336 s.

BAUER, M. et al.: Környezetismeret. Dinasztia Tankönyvkiadó, 2001. - 80. - ISBN 00 115 01

PASCH, M. et al.: 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:**

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 4

A	B	C	D	E	FX
75.0	0.0	25.0	0.0	0.0	0.0

**Teacher:**

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ VFE/15	<b>Name:</b> Selected Chapters from Environmental Chemistry
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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).	
<b>Results of education:</b> After the successful accomplishment of his/her studies, students will become familiar with the basic role of the environmental factors and their structure. He/she will be able to characterize the connections between the organisms and between the humans and her environments. Due to the chemical education he/she can apply this knowledge for the formation and protection of the environment at local, regional and international level. He/she will get an overview on the present state of the environmental issues in this country, and about the future changes. He/she can evaluate the importance of sustainability, as the positive perspectives of our society. He/she can apply this knowledge in chemical education in the form of pedagogical practice.	
<b>Brief syllabus:</b> 1. Chemistry is an important part of natural sciences. It is an important link between the humans and their environment 2. The effect of chemistry on human life 3. Evaluation of the environment and its components. Characterization of the soil, water, and air, based on chemical principles 4. The characteristic physical and chemical parameters of our environment 5. The sources of the contaminations, their chemical characterization 6. The most important polluting materials in the air, water and soil. 7. Technologies, used for the determination of soil contaminations and methods for its cleaning 8. Instrumentations and methods used for water purifications 9. Instrumentations and methods used for the air purifications 10. Characterization of the industrial and domestic trash from the viewpoint of organic chemistry 11. Neutralization and recycling. Chemical characterization from the viewpoint of environmental friendly processes 12. The legal actions and the environmental protection laws in Slovakia	

### 13. Relationships of the local and global environmental factors, the responsibility of the individuals

**Literature:**

- TÖLGYESSY, J. a kol.: Chémia, biológia a toxikológia vody a ovzdušia - 2. vyd. Bratislava : VEDA, 1989. 536 s. ISBN 80 224 0034 3
- ÁBRAHÁM, K.: Környezetünk jövője-1. vyd. Budapest: Kossuth Könyvkiadó, 1986. 139s. ISBN 963 09 2892 2
- BÁNDI, GY.: Hulladékgyártási kézikönyv I.-1. vyd. Budapest: KJK, 2002. 348 s. ISBN 963 224643 8
- HOLÉCZYOVÁ, G. et al.: Hygiena životného prostredia - 1. vyd. Košice : Univerzita Pavla Jozefa Šafárika, 2011. 201s. ISBN 978 80 7097 892 4
- HORVÁTHNÉ-PAPP, I.: Integrált környezetvédelem : Módszertani segédlet tanórákhoz és tanórán kívüli környezeti nevelési tevékenységekhez - 1. vyd. Budapest: Pont Kiadó, 2001. 112 s. ISBN 963 9312 44 4
- KLINDA, J. :Správa o stave životného prostredia Slovenskej republiky v roku 2010 . 1. vyd. Bratislava: Ministerstvo životného prostredia Slovenskej republiky, 2011. 192 s. ISBN 978-80-89503-19-3
- KOVÁTS-NÉMETH, M.: Együtt a környezetért- 1. vyd. : Palatia Nyomda és Kiadó Kft, 2011. 350s. ISBN 978-963-7692-35-2
- KVASNIČKOVÁ, D.: Životné prostredie - 1. vyd. Bratislava: Slovenské pedagogické nakladateľstvo, 2002. 160 s. ISBN 80-08-03341-X
- MAKLÁRI, J.- KRISKA,GY.: Különleges probléma a szemét - 1. vyd. : Flaccus, 2002. 63s.

**Language, knowledge of which is necessary to complete a course:****Notes:****Evaluation of subjects**

Total number of evaluated students: 7

A	B	C	D	E	FX
85.71	14.29	0.0	0.0	0.0	0.0

**Teacher:** Gábor Dibó, PhD.**Date of last update:** 14.06.2016**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/CHdm/ VFK/15	<b>Name:</b> Selected Chapters from Chemistry
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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).	
<b>Results of education:</b> By absolving this course, students will become familiar with the basics of macromolecular chemistry and bioinorganic chemistry and this knowledge can be utilized for practical aspects as well.	
<b>Brief syllabus:</b> <ol style="list-style-type: none"><li>1. The basics of macromolecular chemistry</li><li>2. The nomenclature of polymers</li><li>3. The tacticity of polymers</li><li>4. Basic reactions of the macrocyclic compounds</li><li>5. Characterization of the polymers, molecular weight distribution</li><li>6. Utilization of the polymers</li><li>7. Inorganic polymers</li><li>8. Basics of bioinorganic chemistry</li><li>9. Enzymology. Biocatalysis</li><li>10. Biogenic elements. The role of special metals in living systems</li><li>11. Toxicity of the heavy metals, the mechanism of their action</li><li>12. The cisplatin and its application as a drug. The complexes of gold</li><li>13. Contrast materials for MRI</li></ol>	
<b>Literature:</b> ZSUGA M.: Makromolekuláris kémia. Debrecen, Kossuth Egyetemi Kiadó, 2003. - 130 s. ISBN 0013778 GREENWOOD, N. N., EARNSHAW, A.: Chemie prvku I a II. ISBN 80 85427 38 9 GREENWOOD, N. N., EARNSHAW, A., A.: Az elemek kémiája II. a III.- Budapest : Nemzeti Tankönyvkiadó, 2004. ISBN 963 19 5255 x	

GREENWOOD, J.: Activity box - A resource book for teachers of young students : Cambridge University Press, 1997. - 120. - ISBN 0521 49870 8

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 4

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

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

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/GEN 2/13	<b>Name:</b> Gender study 2
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%	
<b>Results of education:</b> Deepen students' knowledge in the field of education genera in historical context. The subject is based on a continuation of themes GEN1	
<b>Brief syllabus:</b> The social image of women and men at 20 and 21 pages. Main events in the creation of the image of women and the education of women at 20 and 21 pages. The development of educational equality, diversity, specifications, limitations. The struggle for women's participation in higher education in the 19th and 20th str. The role of women in I. and II. World War. The consequences of taking women to the labor market. Development of image "modern woman". Analysis of the life path of men and women, career women in 20th-century. Female intellectual profession. Change the lives of women after World War II. World War. "Baby room" and the consequences tgradicionálneho change the image of man and woman. Changes in education žienv second half of the century. Women at university - possibilities and limitations. Women in scientific life.	
<b>Literature:</b> Pukánszky Béla: A nőnevelés története. Jegyzet. Selye János Egyetem, Tanárképző Kar, Komárom, 2015. BÚTOROVÁ, Zora. a kol. (2003): Ženy, muži a rovnost' příležitostí. In: Slovensko 2002. Súhrnná správa o stave spoločnosti. Bratislava: Inštitút pre verejné otázky Kéri Katalin: Tollam szivárványba mártom. Források az európai nőtörténet köréből az ókortól a 20. századig. 1999. Pécs. Kéri Katalin: Nőkép és leánynevelés az 1960-as években – a tantervek tükrében. ActaPaedagogica, 2002. 4. szám, 14-21. URL: www.kerikata.hu	

Palasik Mária és Sipos Balázs: Házastárs? Munkatárs? Vetélytárs? A női szerepek változása a 20. századi Magyarországon. 2005. Napvilág Kiadó, Budapest.

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

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 124

A	B	C	D	E	FX
50.0	13.71	25.0	8.87	2.42	0.0

**Teacher:** prof. Dr. Béla István Pukánszki, DSc.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ DI1/15	<b>Name:</b> Didactics of Informatics 1
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 / 0 / 2 <b>For the study period:</b> 13 / 0 / 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester students are become familiar with special elements in teaching informatics subjects at elementary and secondary schools as well as with various forms and methods of teaching (problem based, project based learning and cooperative teaching). Continuous, individually and creatively works on their own preparation to the lesson (to the content), which must submit, subsequently presenting (to teach) in the frame of the exercise. During the semester, students have the opportunity to consult their sample preparation with teacher. During the semester, students are evaluated to their activity (creation of preparation) and for the performance (presentation of own preparation). Students must get at least the 50% of the total evaluation, to be allowed to pass the examination. The exam is combined and consists of practical part - presentation of the didactic software and verification of theoretical knowledge from creation of educational software. The students, to be classified, must be also successful at least 50% on the exam. Students are classified according to the average obtained in the overall assessment of the continuous preparing during the semester (50%) and according to the exam (50%). For obtaining the classification A must be obtained at least 90% share of average, at least 80% for B, for C at least 70%, at least 60% for D, for E at least 50%. Credits for subject will not be assigned for the student, who is not at least 50% successful of the individual parts.	
<b>Results of education:</b> After successful completion of this course students can use different teaching forms and methods, to know the structure of the lesson, and are able to apply their own preparation in the subject of informatics. They are aware of the possibilities of the computer as didactic tools in various forms and phases of education. They know control technical and legal context of the teaching and its organization.	
<b>Brief syllabus:</b> <ul style="list-style-type: none"> <li>• Introduction to didactics of informatics,</li> <li>• special elements of teaching the subjects of informatics,</li> <li>• working on the computer for beginners,</li> <li>• work with text (problem based learning),</li> <li>• working with graphics (problem based learning),</li> <li>• spreadsheets and databases (problem and project based learning),</li> <li>• Internet and communication (cooperative teaching),</li> </ul>	

- supporting of the creativity in the education - constructionism and constructivism,
- evaluating the pupil performance and the classification,
- preparation of teacher of informatics to the teaching,
- structure of the lesson,
- computer as a universal didactic tool,
- technical and legal context of the teaching and its organization.

### **Literature:**

1. Current curricula and education standards for subjects of Informatics (ISCED2, ISCED3). [online]. Available: <<http://www.statpedu.sk/sk/Statny-vzdelavaci-program>>
2. BORSÁNYI, K.: Informatika. Budapest : Nemzeti Tankönyvkiadó, 2000. 16 s. ISBN 0009435.
3. BRESTENSKÁ, B.: Premena školy s využitím informačných a komunikačných technológií : Využitie IKT v danom predmete : spoločná časť. 1. vyd. Košice : elfa, s.r.o. 162 s. ISBN 978-80-8086-143-8.
4. COLIN, A.J.T.: Bevezetés az operációs rendszerek tanulmányozásába. Budapest : Statisztikai Kiadó Vállalat, 1976. 139 s. ISBN 963 340 085 6.
5. KALÁŠ, I.: Informatika pre stredné školy. 1. vyd. Bratislava : Slovenské pedagogické nakladateľstvo, 2001. 112 s. ISBN 80-08-01518-7.
6. KALÁŠ, I.: Premeny školy v digitálnom veku. 1. vyd. Bratislava : Slovenské pedagogické nakladateľstvo - Mladé letá, s.r.o., 2013. 256 s. ISBN 978-80-10-02409-4.
7. KOVÁCS, M.: Bevezetés a Számítástechnikába. Budapest : LSI Oktatóközpont, 2002. 368 s. ISBN 963 577 270 X.
8. NÉMETH, I.: Informatika 8-10 éves gyerekek számára. Budapest : Holnap, 1994. 82 s. ISBN 9634412270.
9. NÉMETH, F.: Tehnika - informatika 10-11 éveseknek. Budapest : Műszaki Kiadó, 1995. 70 s. ISBN 963160568X.
10. NÉMETH, G.: Informatika. Budapest : Műegyetemi Kiadó, 2002. 215 s. ISBN 0108228.
11. NÉMETH, I.: Informatika - munkáltató tankönyv az 5. osztályosok számára. Budapest : Calibra, 1994. 108 s. ISBN 963 8078 20 0.
12. NÓGRÁDI, L.: PC sulí XP alapokon I. kötet. 1. vyd. Győr : Nógrádi PC Sulí Kft., 2004. 368 s. ISBN 963 216 688 4.
13. NÓGRÁDI, L.: PC sulí XP alapokon II. kötet. 1. vyd. Győr : Nógrádi PC Sulí Kft., 2005. 320 s. ISBN 963 216 689 2.
14. RYBÁR, J.: Kognitívne vedy. Bratislava : Kalligram, 2002. 360 s. ISBN 80-7149-515-8.
15. SIMON, Gy.: Számítástechnika középiskolásoknak. Debrecen : Pedellus BT., 1995. 204 s. ISBN 963 8397 16 0.
16. STOFFA, V.: Az informatika alapjai I. Komárno : Apáczai közalapítvány, 2007. 268 s. ISBN 978-80-89234-29-5.
17. STOFFOVÁ, V. - CZAKÓOVÁ, K. – VÉGH, L. XXV. DIDMATTECH 2012 : ABSTRACTS - ABSTRAKTY. 1. vyd. Brno : Librix, 2012. 102 s. ISBN 978 80 8122 045 6.
18. STOFFOVÁ, V. - MASTALERZ, E. – NOGA, H. XXIV DIDMATTECH 2011 : Problems in teachers education . 1. vyd. Krakow : Institute of Technology, 2011. 270 s. ISBN 978-83-7271-679-8.
19. STOFFOVA, V.: Az informatika alapjai II.: A számítógépes hálózatok . 1. vyd. Komárno : UJS, 2010. 140 s. ISBN 978-80-89234-65-3.
20. STOFFOVÁ, V.: Počítač univerzálny didaktický prostriedok. 1. vyd. Nitra : PF UKF, 2004. 173 s. ISBN 80 8050 765 1.
21. SZABÓ, L.: Informatika az V-X. évfolyamok számára. Celldömölk : AK -Apáczai Kiadó, 1997. 56 s. ISBN 9634642950.
22. TÓTH, T.: Informatika 8. 2. vyd. Budapest : Nemzeti Tankönyvkiadó, 2004. 112 s. ISBN 963 19 4770 X.

23. TÓTH, T.: Informatika 9. 3. vyd. Budapest : Nemzeti Tankönyvkiadó, 2004. 111 s. ISBN 963 19 5155 3.

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

Hungarian language, Slovak language

**Notes:**

none

**Evaluation of subjects**

Total number of evaluated students: 189

A	B	C	D	E	FX
19.58	33.86	29.1	10.05	4.23	3.17

**Teacher:** PaedDr. Krisztina Czakóová, PhD.

**Date of last update:** 19.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ DI2/15	<b>Name:</b> Didactics of Informatics 2
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 / 0 / 2 <b>For the study period:</b> 13 / 0 / 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester students are become familiar with special elements in teaching informatics subjects at elementary and secondary schools -especially focused to programming, as well as with various forms and methods of teaching (problem based, project based learning and cooperative teaching). Continuously becomes familiar with the opportunities of children's programming languages, individually and creatively works on their own preparation to the lesson (to the content of the phases of programming), which must submit, subsequently presenting (to teach) in the frame of the exercise. During the semester students must submit for evaluation 6 preparations, from which 2 needs to be presented. Students have the opportunity to consult their preparations with teacher. During the semester, students are evaluated to their activity (creation of preparation) and for the 2 performance (presentation of own preparation). Students must get at least the 50% of the total evaluation, to be allowed to pass the examination. The exam is combined and consists of practical part - presentation of the didactic software and verification of theoretical knowledge from creation of educational software. The students, to be classified, must be also successful at least 50% on the exam. Students are classified according to the average obtained in the overall assessment of the continuous preparing during the semester (50%) and according to the exam (50%). For obtaining the classification A must be obtained at least 90% share of average, at least 80% for B, for C at least 70%, at least 60% for D, for E at least 50%. Credits for subject will not be assigned for the student, who is not at least 50% successful of the individual parts.	
<b>Results of education:</b> After successful completion of this course students can use different teaching forms and methods, focused to teach programming at elementary and secondary school. Know the structure of the lesson, and are able to apply their own preparation to teach the programming in the subject of informatics. They are aware of the possibilities of the computer as didactic tools in various forms and phases of education. They know control technical and legal context of the teaching and its organization.	
<b>Brief syllabus:</b> <ul style="list-style-type: none"> <li>• Safety regulations and health protection at work with a computer,</li> <li>• the place of programming in the frame of teaching informatics,</li> </ul>	

- children's programming languages and their application in primary and secondary schools - Logo turtle graphics, Imagine and other graphical programming environment,
- teaching programming in the "classic" programming language in primary and secondary schools,
- pupils' motivation and creativity,
- care of talented pupils - their preparation for programming competitions,
- evaluation of programming skills and performance,
- work with literature and with resources from the Internet (type freeware programs),
- social, ethical and psychological issues connected with teaching,
- methods of problem-based learning and collective problem-solving - active performance of students,
- technical realization of teaching - exemplification, electronic textbooks.

### **Literature:**

1. Current curricula and education standards for the subjects of Informatics (ISCED2, ISCED3). [online]. Available: <<http://www.statpedu.sk/sk/Statny-vzdelavaci-program>>
2. BÁRDOS, A. - KÖRTVÉLYESI, G.: Programozási alapeladatok gyűjteménye. Budapest : Számalk, 1985. 210 s. ISBN 963 553 0978.
3. CSŐKE, L. - GARAMHEGYI, G.: A számítógép - programozás logikai alapjai. Algoritmusok és elemi adatszerkesztés. Budapest : Nemzeti Tankönyvkiadó, 2002. 144 s. ISBN 9631883310,
4. KALAŠ, I.: Informatika pre stredné školy. 1. vyd. Bratislava : Slovenské pedagogické nakladateľstvo, 2001. 112 s. ISBN 80-08-01518-7.
5. KALAŠ, I.: Premeny školy v digitálnom veku. 1. vyd. Bratislava : Slovenské pedagogické nakladateľstvo - Mladé letá, s.r.o., 2013. 256 s. ISBN 978-80-10-02409-4.
6. MOLNÁR, Cs. - SÁGI, G.: Programozás : Informatikai füzetek. Budapest : BBS-E, 2003. 298 s. ISBN 9630034468.
7. MOLNÁR, Cs.: Programozás Turbo Pascal nyelven. Budapest : BBS-INFO, 2001. 234 s. ISBN 963 03 7152 9.
8. NÉMETH, I.: Informatika 8-10 éves gyerekek számára. Budapest : Holnap, 1994. 82 s. ISBN 9634412270.
9. NÉMETH, F.: Tehnika - informatika 10-11 éveseknek. Budapest : Műszaki Kiadó, 1995. 70 s. ISBN 963160568X.
10. NÉMETH, G.: Informatika. Budapest : Műegyetemi Kiadó, 2002. 215 s. ISBN 0108228.
11. NÉMETH, I.: Informatika - munkáltató tankönyv az 5. osztályosok számára. Budapest : Calibra, 1994. 108 s. ISBN 963 8078 20 0.
12. PENTELENYI, P.: Az algoritmikus szemléletmód kialakítása és fejlesztése a tanítási - tanulási folyamatban. Budapest : Ligatura, 1999. 128 s. ISBN 963 85138 8 8.
13. PONGOR, Gy.: Szabványos PASCAL Programozás és algoritmusok. Budapest : Muszaki könyvkiadó, 2002. 424 s. ISBN 9631625737.
14. RYBÁR, J.: Kognitívne vedy. Bratislava : Kalligram, 2002. 360 s. ISBN 80-7149-515-8.
15. SIMON, Gy.: Számítástechnika középiskolásoknak. Debrecen : Pedellus BT., 1995. 204 s. ISBN 963 8397 16 0.
16. STOFFA, V.: Algoritmizáció és programozás I. Komárno : Selye János Egyetem, 2005. 174 s. ISBN 80-969251-7-2.
17. STOFFOVÁ, V. - CZAKÓOVÁ, K. – VÉGH, L. XXV. DIDMATTECH 2012 : ABSTRACTS - ABSTRAKTY. 1. vyd. Brno : Librix, 2012. 102 s. ISBN 978 80 8122 045 6.
18. STOFFOVÁ, V. - MASTALERZ, E. – NOGA, H. XXIV DIDMATTECH 2011 : Problems in teachers education . 1. vyd. Krakow : Institute of Technology, 2011. 270 s. ISBN 978-83-7271-679-8.
19. SZABÓ, L.: Informatika az V-X. évfolyamok számára. Celldömölk : AK -Apáczai Kiadó, 1997. 56 s. ISBN 9634642950.

20. TÓTH, P.: Gondolkodásfejlesztés az informatika oktatásban. Budapest : Ligatura, 2004. 60 s. ISBN 9638611324xy.
21. TÓTH, T.: Informatika 8. 2. vyd. Budapest : Nemzeti Tankönyvkiadó, 2004. 112 s. ISBN 963 19 4770 X.
22. TÓTH, T.: Informatika 9. 3. vyd. Budapest : Nemzeti Tankönyvkiadó, 2004. 111 s. ISBN 963 19 5155 3.

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

Hungarian language, Slovak language

**Notes:**

none

**Evaluation of subjects**

Total number of evaluated students: 157

A	B	C	D	E	FX
34.39	23.57	26.11	7.64	5.73	2.55

**Teacher:** PaedDr. Krisztina Czakóová, PhD.

**Date of last update:** 19.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KMI/Idm/ DS/15		<b>Name:</b> Diplomový seminár			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 0 / 2 / 0 <b>For the study period:</b> 0 / 26 / 0 <b>Methods of study:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of study:</b> 3.					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b>					
<b>Results of education:</b>					
<b>Brief syllabus:</b>					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 81					
A	B	C	D	E	FX
75.31	13.58	7.41	2.47	1.23	0.0
<b>Teacher:</b> prof. Ing. Veronika Stoffová, CSc.					
<b>Date of last update:</b> 29.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KMI/Idm/ MIT/15		<b>Name:</b> Materiály v IKT			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 / 1 / 0 <b>For the study period:</b> 13 / 13 / 0 <b>Methods of study:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of study:</b> 1.					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b>					
<b>Results of education:</b>					
<b>Brief syllabus:</b>					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 128					
A	B	C	D	E	FX
40.63	26.56	17.97	7.81	6.25	0.78
<b>Teacher:</b> Dr. habil. András Molnár, PhD.					
<b>Date of last update:</b> 19.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ MS1/15	<b>Name:</b> Modelovanie a simulácia 1
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 2 / 0 / 2 <b>For the study period:</b> 26 / 0 / 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester the students except of analytical solutions of identification systems problems, making their mathematical models and computer implementation models create their own applications - computer simulation model of a particular system. Students are assessed according to the average percentage obtained on the basis of their continuous training assessment during the semester, their semester project and the exams. For assessment A it should be obtained at least 90 percent, for assessment B at least 80 percent, for assessment C at least 70 percent, for assessment D at least 60 percent, for assessment E at least 50 percent.	
<b>Results of education:</b> After successful completion of the course the student is familiar with the methods of modeling and simulation, can do mathematical models, and he has has a theoretical knowledge and skills to implement them through appropriate programming environment. He can cope with the simulation of different dynamic effects in order to acquire new knowledge.	
<b>Brief syllabus:</b> Course contents: Introduction to modeling and simulation systems, basic terminology, classification systems and their essential characteristics , Discrete systems: Markov chain and its characteristics; queuing systems and their classification; Kolmogorov differential equations and analytical solutions of queuing systems ; Description and analytical solution for various types of queuing systems; Network queuing systems and analytical solutions; Methods for generating random numbers; Monte Carlo method and its applications; Compartmental models in discrete systems; Languages for modeling and siulation of discrete systems (SPML); Computer modelling and simulation of discrete systems; Simulation experiments, their planning and implementation, simulation protocol. Continuous systems:	

A description of continuous systems, mathematical models of continuous systems and their creation;  
identification of systems;  
Numerical methods for solving linear systems;  
Continuous compartmental models;  
Languages for continuous systems (PSI/I);  
Computer modeling and simulation in continuous systems;  
Simulation experiments, their planning and implementation;  
Interpretation of the results of the simulation experiment.

**Literature:**

1. ŠAFARÍK, J. - ŠTOFOVÁ, V. - CVIK, P.: Modelovanie a simulácia. EF SVŠT, Bratislava 1984.
  2. RÁBOVÁ, Z. a kol.: Modelování a simulace. Nakladatelství VUT, Brno 1992.
  3. NEUSCHL, Š. a kol.: Modelovanie a simulácia. Alfa - SNTL. Praha 1988.
  4. KUNEŠ, J. - VAVROCH, O. - FRANTA, V.: Základy modelování. SNTL, Praha, 1989.
  5. ZÍTEK, P.: Simulace dynamických systémů. SNTL, Praha 1990.
  6. SMÍTALOVÁ, K.– ŠUJAN, Š.: Dynamické modely biologických spoločenstiev. VEDA, Bratislava, 1989
- Časopisy: Simulation Modelling Practice and Theory, Modelling and Simulation in Engineering

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

Hungarian language, Slovak language, English language

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 139

A	B	C	D	E	FX
20.86	26.62	23.02	12.23	12.95	4.32

**Teacher:** Ing. Ondrej Takáč, PhD.

**Date of last update:** 19.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KMI/Idm/ MS2/15		<b>Name:</b> Modelovanie a simulácia 2			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 0 / 0 / 2 <b>For the study period:</b> 0 / 0 / 26 <b>Methods of study:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of study:</b> 2.					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b>					
<b>Results of education:</b>					
<b>Brief syllabus:</b>					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 52					
A	B	C	D	E	FX
36.54	25.0	25.0	1.92	5.77	5.77
<b>Teacher:</b> prof. RNDr. Tibor Kmet', CSc.					
<b>Date of last update:</b> 19.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ NM/15	<b>Name:</b> Numerical Mathematics
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 / 0 / 2 <b>For the study period:</b> 13 / 0 / 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> The course is finished by a written exam where it is possible to obtain 100 points. For assessment A should be obtained at least 90 points, for assessment B at least 80 points, for assessment C at least 70 points, for assessment D at least 60 points, for assessment E at least 50 points. Credits will not be granted to students who obtain less than 50 points.	
<b>Results of education:</b> At the end of the course, students will obtain an overview of the basic numerical methods and will be able to use them in solving programming problems.	
<b>Brief syllabus:</b> Introduction to the Numerical Mathematics. Numerical solution of linear equation systems – backward substitution, Gaussian elimination, Gaussian elimination with scaled partial pivoting, Jacobi method, Gauss-Seidel method, Gauss-Jordan method, LU-factorization. Eigenvalues – computing the largest eigenvalue. Numerical solution of nonlinear equations – root separation, interval splitting, bisection method, Newton’s method, simple iteration method, solution of nonlinear equation systems. Interpolation – polynomial approximation of functions, linear interpolation, Lagrange interpolation polynomial, Newton interpolation polynomial, Aitken interpolation, method of least squares. Numerical differentiation. Numerical integration – quadrature rules (rectangle rule, trapezoidal rule, Simpson’s rule). Numerical solution of differential equations – Euler method, Predictor–corrector method, Runge-Kutta method.	
<b>Literature:</b> BÉKÉSOVÁ, S.: Základy numerickej matematiky a programovanie. Bratislava : Alfa, 1984. 211 s. KMEŤ, T. – VOZÁR, M. – KMEŤOVÁ, M.: MATLAB a vizualizácia numerických a optimalizačných metód. Nitra : FPV UKF, 2012. 191 s. ISBN 978-80-558-0114-8. NEKVIDA, M.: Úvod do numerickej matematiky. Praha : SNTL, 1976. 288 s. GISBERT, S. – TAKÓ, G.: Numerikus módszerek. Budapest : Typotex, 2002. 442 s. ISBN 978-963-9326-20-8.	

SOMOGYI, I. – SZILÁRD, A.: Numerikus analízis. Cluj-Napoca : Presa Universitara Clujena, 2009. 264 s. ISBN 978-973-610-702-3.

STIEFEL, E.: Bevezetés a numerikus matematikába. Budapest : Műszaki Könyvkiadó, 1973. 299 s.

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

Hungarian, Slovak

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 154

A	B	C	D	E	FX
29.87	16.23	25.32	12.99	12.99	2.6

**Teacher:** prof. RNDr. Tibor Kmeť, CSc.

**Date of last update:** 19.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KMI/Idm/ ODP/15		<b>Name:</b> Diplomová práca a jej obhajoba			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> <b>Methods of study:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of study:</b>					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b>					
<b>Results of education:</b>					
<b>Brief syllabus:</b>					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Teacher:</b>					
<b>Date of last update:</b> 29.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ OPT/15	<b>Name:</b> Optimization
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 / 0 / 2 <b>For the study period:</b> 13 / 0 / 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> The course is finished by a written exam where it is possible to obtain 100 points. For assessment A should be obtained at least 90 points, for assessment B at least 80 points, for assessment C at least 70 points, for assessment D at least 60 points, for assessment E at least 50 points. Credits will not be granted to students who obtain less than 50 points.	
<b>Results of education:</b> At the end of the course, students will obtain an overview of the basic optimization methods, their algorithmization and will be able to use them in solving programming problems.	
<b>Brief syllabus:</b> Classification of optimization tasks. Linear programming, linear optimization tasks. Optimization and Game Theory. Simplex method. Parametric tasks. Branch and Bound method. Dynamic programming and optimization. Nonlinear programming. One-parameter optimization tasks – golden section search method, Fibonacci search method. Multi-parameter optimization tasks – method of least squares (discrete and continuous), gradient method, Cauchy method of steepest descent. Constrained optimization tasks – method of Lagrange multipliers, penalty method.	
<b>Literature:</b> KMEŤ, T. – VOZÁR, M. – KMEŤOVÁ, M.: MATLAB a vizualizácia numerických a optimalizačných metód. Nitra : FPV UKF, 2012. 191 s. ISBN 978-80-558-0114-8. KOŘENÁŘ, V. – LAGOVÁ, M. a kol.: Optimalizační metody. Praha : Vysoká škola ekonomická, 2003. 187 s. ISBN 978-80 245-0609-2. BAJALINOV, E. – IMREH, B.: Operációkutatás. Szeged : Polygon, 2001. 302 s. ISSN 0000-2467. DANYI, A. – VARRÓ, D.: Operációkutatás: Lineáris programozás. Pécs : PTE, 2003. 306 s. ISBN 978-963-6413-77-0.	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian, Slovak	

**Notes:****Evaluation of subjects**

Total number of evaluated students: 164

A	B	C	D	E	FX
39.63	23.17	17.07	5.49	14.63	0.0

**Teacher:** Dr. habil. Attila Elemér Kiss, CSc., RNDr. Štefan Gubo, PhD.**Date of last update:** 29.06.2016**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ PGR/15	<b>Name:</b> Počítačová grafika 2
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 / 0 / 2 <b>For the study period:</b> 13 / 0 / 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> The course is finished by an exam. Students are assessed according to the average percentage obtained on the exams. For assessment A should be obtained at least 90 percent, for assessment B at least 80 percent, for assessment C at least 70 percent, for assessment D at least 60 percent, for assessment E at least 50 percent. Credits will not be granted to students who obtain less than 50 percent.	
<b>Results of education:</b> After successful completion of the course the student gain insight into the world of digital image processing and computer graphics. He masters the technical terminology, algorithms, principles and procedures used in computer graphics. He is familiar with the work of raster and vector graphics, work with graphic data and formats, hardware components and modern methods.	
<b>Brief syllabus:</b> Introduction to image processing and computer graphics. Characterization of raster image and their displayig. Color models and the human visual system. Raster image formats. Raster image compression method. Image processing- highlighting , bounding of noise and so on. Stereograms, optical illusion. Characterization of vector images. Curves and surfaces. Geometric transformations. Visibility of objects. Lighting and shading. Fractals in computer graphics.	
<b>Literature:</b> BUDAI, A.: A számítógépes grafika. Budapest, 2003, 390 s. LSI Oktatóközpont, ISBN 9635772432. SOBOTA, B. - Milián, J.: Grafické formáty. České Budějovice, 1996, 157 s. Kopp, ISBN 80-85828-58-8. SZIRMAY, L.: Számítógépes grafika. Budapest 2003, 334 s. ComputerBooks, ISBN 963 618 208 6.	

BERKE, J. - HEGEDŰS, Cs. - KELEMEN, D.: Digitálisképfeldolgozásésalkalmazásai. Budapest, 1996, 215 s. Pictron, ISBN 963 00 5744 1.

ŽÁRA, J. a kol: Moderní počítačová grafika, Brno 2010, 608 s., Computer Press a.s., ISBN 80-251-0454-0.

HIDEKGUTI, G.: Vinnay, P. Digitálisképkotás. Budapest, 2001, 196 s., ViviCom Kiadói és Kommunikációs Kft., ISBN 9789630088533.

FÜZI, J.: Grafikai alkalmazások Delphi nyelven. Budapest, 2000, 322 s., ComputerBooks, ISBN 963 618 236 1.

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

Hungarian language, Slovak language

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 162

A	B	C	D	E	FX
26.54	22.84	16.05	11.73	22.22	0.62

**Teacher:** Dr. habil. József Zoltán Kató, DSc., Ing. Ondrej Takáč, PhD.

**Date of last update:** 29.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ PPX2/15	<b>Name:</b> Pedagogical Practice 2
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> 20s <b>Methods of study:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> The student shall transmit documentation on teaching practice: completed observation sheets, protocol of teaching practice, lesson plans and assessment of own performer teaching practice.	
<b>Results of education:</b> Within the teaching practice students observe and analyze educational process. They learn to apply the theoretical knowledge acquired during studies of general-education subjects, general and subject didactics. They gradually acquire teaching skills to conduct teaching profession.	
<b>Brief syllabus:</b> - 5 hours to listen: passive participation in the hour of the teacher trainer, during which the student monitoring the progress of the lesson, resp. the educational process and makes notes of the aspects of the lesson in monitoring sheets; - 5 hours of preparation: the student is preparing for the teaching activity, resp. for the management of lesson, according to the instructions and guidances of teacher trainer; - 5 hours of active teaching activity: the student performs as a teacher in the classroom selected by teachers trainer and leads the lesson; - 5 hours of analysis and evaluation: the teacher trainer and student jointly make analysis the activity of the student, from the methodological and didactical point of view.	
<b>Literature:</b> The current curriculum and educational standards. Pedagogical school programs for primary /secondary schools. Overview of current foreign pedagogical documents.	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian language	
<b>Notes:</b> The student mandatory takes up the performer teaching practice (PPX2 respectively PPX3) from the one of their combination (subject specialization) in the 2. semester and the second one in the 3. semester. The performer teaching practice - active individual teaching of students (trainees) under the guidance of teacher trainers based on thought out written preparation. It has two forms: the continuous performer teaching practice and the related performer teaching practice.	

The student absolves the continuous performer teaching practice (PPX2) from the one of their subject specialization in the 2. semester of master study (in the range of 20 hours per semester) and the continuous performer teaching practice from second one subject specialization (PPX3) in the 3. semester of master study (in the range of 20 hours per semester).

The student absolves the related performer teaching practice (PPX4) from each of subject specialization in the 4. semester of master study in the range of 40 hours per subject specialization, of which 20 hours in primary school and 20 hours in secondary school (the first subject specialization: 40 hours = 20 hours of basic school + 20 hours secondary school; the second subject specialization: 40 hours = 20 hours of basic school + 20 hours secondary school).

**Evaluation of subjects**

Total number of evaluated students: 4

a	n
100.0	0.0

**Teacher:** PaedDr. Krisztina Czakóová, PhD.

**Date of last update:** 19.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ PPX3/15	<b>Name:</b> Pedagogical Practice 3
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> 20s <b>Methods of study:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of study:</b> 3.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> The student shall transmit documentation on teaching practice: completed observation sheets, protocol of teaching practice, lesson plans and assessment of own performer teaching practice.	
<b>Results of education:</b> Within the teaching practice students observe and analyze educational process. They learn to apply the theoretical knowledge acquired during studies of general-education subjects, general and subject didactics. They gradually acquire teaching skills to conduct teaching profession.	
<b>Brief syllabus:</b> - 5 hours to listen: passive participation in the hour of the teacher trainer, during which the student monitoring the progress of the lesson, resp. the educational process and makes notes of the aspects of the lesson in monitoring sheets; - 5 hours of preparation: the student is preparing for the teaching activity, resp. for the management of lesson, according to the instructions and guidance of teachers trainer; - 5 hours of active teaching activity: the student performs as a teacher in the classroom selected by teacher trainer and leads the lesson; - 5 hours of analysis and evaluation: the teacher trainer and student jointly make analysis the activity of the student, from the methodological and didactical point of view.	
<b>Literature:</b> The current curriculum and educational standards. Pedagogical school programs for primary /secondary schools. Overview of current foreign pedagogical documents.	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian language	
<b>Notes:</b> The student mandatory takes up the performer teaching practice (PPX2 respectively PPX3) from the one of their combination (subject specialization) in the 2. semester and the second one in the 3. semester. The performer teaching practice - active individual teaching of students (trainees) under the guidance of teacher trainers based on thought out written preparation. It has two forms: the continuous performer teaching practice and the related performer teaching practice.	

The student absolves the continuous performer teaching practice (PPX2) from the one of their subject specialization in the 2. semester of master study (in the range of 20 hours per semester) and the continuous performer teaching practice from second one subject specialization (PPX3) in the 3. semester of master study (in the range of 20 hours per semester).

The student absolves the related performer teaching practice (PPX4) from each of subject specialization in the 4. semester of master study in the range of 40 hours per subject specialization, of which 20 hours in primary school and 20 hours in secondary school (the first subject specialization: 40 hours = 20 hours of basic school + 20 hours secondary school; the second subject specialization: 40 hours = 20 hours of basic school + 20 hours secondary school).

**Evaluation of subjects**

Total number of evaluated students: 0

a	n
0.0	0.0

**Teacher:** PaedDr. Krisztina Czakóová, PhD.

**Date of last update:** 19.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ PPX4/15	<b>Name:</b> Pedagogical Practice 4
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> 40s <b>Methods of study:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of study:</b> 4.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> The student shall transmit documentation on teaching practice: completed observation sheets, protocol of teaching practice, lesson plans and assessment of own performer teaching practice.	
<b>Results of education:</b> The student will be able to handle the monitoring, evaluation analyzes of teaching during teaching practice, respectively the methodology of teaching in elementary and secondary schools at the professional level, within the terms of primary and secondary schools in accordance with pedagogical-didactic knowledge and will be able to individually leads the lesson.	
<b>Brief syllabus:</b> Didactic teaching competence in direct contact with pupils / students in the environment of elementary resp. secondary school. Monitoring and analyzing of educational activities. Professional mastering methodology (based on individual concepts) as it current trends of didactics in English language projects for primary and secondary schools. Application of pedagogical approaches based on the personality of pupils / students. Expected are the elements of creativity, independence, individuality and alternatives in the participants used methodology.	
<b>Literature:</b> The current curriculum and educational standards. Pedagogical school programs for primary /secondary schools. Overview of current foreign pedagogical documents.	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian language	
<b>Notes:</b> The student absolves the related performer teaching practice in the range of 40 hours per subject specialization, of which 20 hours in primary school and 20 hours in secondary school (the first subject specialization: 40 hours = 20 hours of basic school + 20 hours secondary school; the second subject specialization: 40 hours = 20 hours of basic school + 20 hours secondary school).	
<b>Evaluation of subjects</b> Total number of evaluated students: 0	

a	n
0.0	0.0
<b>Teacher:</b> PaedDr. Krisztina Czakóová, PhD.	
<b>Date of last update:</b> 19.06.2016	
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteeprof. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.	

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ TAP/15	<b>Name:</b> Spreadsheet application 2
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 0 / 0 / 2 <b>For the study period:</b> 0 / 0 / 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> The course is finished by a written test where it is possible to obtain 100 points. For assessment A should be obtained at least 90 points, for assessment B at least 80 points, for assessment C at least 70 points, for assessment D at least 60 points, for assessment E at least 50 points. Credits will not be granted to students who obtain less than 50 points.	
<b>Results of education:</b> At the end of the course, students will be able to create and edit pivot tables, work with matrices, find extrema of functions, solve equations, a system of equations, linear optimization tasks, regression tasks and create simple macros.	
<b>Brief syllabus:</b> Creating and editing pivot tables. Sorting, filtering and grouping data in a pivot table. Operations with matrices. Finding extrema of functions. Solution of linear and nonlinear equations. Solution of a system of linear and nonlinear equations. Solution of linear optimization tasks – production tasks. Solution of linear optimization tasks – transportation tasks. Solution of linear regression tasks. Solution of nonlinear regression tasks. Creating simple macros.	
<b>Literature:</b> PECINOVSKÝ, J. Excel 2007 v příkladech. Praha : Grada, 2009. 166 s. ISBN 978-80-247-3138-4. BÁRTFAI, B.: Táblázatkezelési gyakorlatok. Budapest : BBS-INFO, 2003. 176 s. ISBN 978-963-863-920-2. LÉVAYNÉ LAKNER, M.: Excel táblázatkezelő a gyakorlatban. Budapest : ComputerBooks, 2002. 150 s. ISBN 978-963-618-228-0. LÉVAYNÉ LAKNER, M.: Excel 2003 táblázatkezelés és programozás a gyakorlatban. Budapest : ComputerBooks, 2007. 240 s. ISBN 978-963-618-344-9.	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian, Slovak	

**Notes:****Evaluation of subjects**

Total number of evaluated students: 10

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

**Teacher:** Dr. habil. József Zoltán Kató, DSc., Dániel Zoltán Stojcsics, PhD., RNDr. Štefan Gubo, PhD.**Date of last update:** 29.06.2016**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KMI/Idm/ TWS/15		<b>Name:</b> Tvorba www stránok			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 0 / 0 / 2 <b>For the study period:</b> 0 / 0 / 26 <b>Methods of study:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of study:</b> 3.					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b>					
<b>Results of education:</b>					
<b>Brief syllabus:</b>					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 135					
A	B	C	D	E	FX
49.63	29.63	11.85	5.19	3.7	0.0
<b>Teacher:</b> Sándor Szénási, PhD.					
<b>Date of last update:</b> 29.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Idm/ VVP/15	<b>Name:</b> Introduction to the Scientific Research Work
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 0 / 2 / 0 <b>For the study period:</b> 0 / 26 / 0 <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester students study the original sources of information about education research, teaching experiment, the processing and interpretation of results. Individual work on their research projects during the entire semester. At the beginning of the semester they have clearly defined assignment and method of classification. Students present their semester works in front of their classmates, after which is included a discussion. During the semester is monitored also student activity in the seminars. Active students receive a bonus, which is added to the overall assessment of the student. The course is ended classified credit. Classification is determined by the quality of semester work and its presentation level, with the addition of the bonus obtained per semester. Students must get at least the 50% score for granting credits for the subject. For obtaining the classification A must be obtained at least 90%, at least 80% for B, for C at least 70%, at least 60% for D, for E at least 50%. The student has the opportunity to improve the classification by correcting or reprocessing of their semester work.	
<b>Results of education:</b> The goal of subject is to familiarize students with science as an organic component of human culture, its institutional security, with the most important methods, forms and outcomes of research work, with research ethics and prepare them for individual planning and implementation of pedagogical research in practice and also teach them how to present the results of its own research activities in the scientific community.	
<b>Brief syllabus:</b> <ul style="list-style-type: none"> <li>• Science as a part of human culture, scientists and researchers;</li> <li>• Institutional assurance and management of scientific (research) work;</li> <li>• The most important methods of scientific (research) work;</li> <li>• The most important forms of scientific (research) work;</li> <li>• Scientific and technical information;</li> <li>• Ethics of scientific (research) work;</li> <li>• Preparation and implementation of individual research work of educators in practice;</li> <li>• Processing, interpretation and presentation of results of individual scientific (research) work;</li> <li>• Specifics of the work of scientist community, evaluations of the scientific (research) work and its qualifications.</li> </ul>	
<b>Literature:</b>	

1. ŠVEC, Š, et al.: Metodológia vied o výchove. Bratislava : Iris, 1998.
2. JUSCZYK, S.: Metodológia empirických výskumov v spoločenských vedách. Bratislava : Iris, 2003. 139 s. ISBN80-89018-13-0
3. SPOUSTA, V.: Vademékum autora odborné a vedecké práce : (se zaměřením na práce pedagogické). 1. vyd. Brno : Masarykova univerzita, Pedagogická fakulta, 2000. 158 s. ISBN 80-210-2387-2
4. MARŠALOVÁ, L. et al.: Metodológia a metódy psychologického výskumu. 1. vyd. Bratislava : SPN, 1990. ISBN 80-08-00019-8
5. BYČKOVSKÝ, P.: Základy měření výsledků výuky. Praha : ČVUT 1983. 149 s.
6. GAVORA, P.: Úvod do pedagogického výskumu. Bratislava : UK Bratislava, 2001. ISBN 80-223-1628-8
7. KATUŠČÁK, D.- MATHAEIDESOVÁ, M. – NOVÁKOVÁ, M.: Informačná výchova – terminologický a výkladový slovník. Bratislava : SPN, 1998.

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

Hungarian language, Slovak language

**Notes:**

none

**Evaluation of subjects**

Total number of evaluated students: 134

A	B	C	D	E	FX
47.76	19.4	15.67	4.48	6.72	5.97

**Teacher:** PaedDr. Krisztina Czakóová, PhD.

**Date of last update:** 19.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KMI/Idm/ ŠSMgr/15		<b>Name:</b> Informatika - predmet štátnej skúšky			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> <b>Methods of study:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of study:</b>					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b>					
<b>Results of education:</b>					
<b>Brief syllabus:</b>					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Teacher:</b>					
<b>Date of last update:</b> 29.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KCH/KCH/ CHdm/PDO/15	<b>Name:</b> Thesis and Its' Defens
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> <b>Methods of study:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of study:</b> 3., 4..	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> Complete elaboration of the thesis. Positive review from the supervisor and the opponent. Successful defens of the thesis.	
<b>Results of education:</b> Student will be able to work in his/her profession creatively, independently will acquire theoretical and practical knowledge about the current science results and implement them to solve the thesis problem. He/she can evaluate the result of his/her research, make conclusion and describe the proceeds and practical benefit of the thesis. By the independently elaboration of the thesis the student proves his/her ability to work with chemical literature and sources. Student will able to defend his/her thesis.	
<b>Brief syllabus:</b> 1. Administration and type of the thesis. 2. The structure of the thesis. 3. Formating and layout of the thesis. 4. Citation and bibliografia, literature and information sources. 5. Selected tasks of the thesis and theirs current theoretical background. 6. Formulation of the hypotesis, aims and tasks. 7. Research methodics. 8. Analyses of the research results and its' processing and interpretation. 9. Conclusion and appendix. 10. The thesis submit, licence contract, honorary statement.	
<b>Literature:</b> 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.	

<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b>					
Total number of evaluated students: 1					
A	B	C	D	E	FX
0.0	100.0	0.0	0.0	0.0	0.0
<b>Teacher:</b>					
<b>Date of last update:</b> 14.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KMI/KMI/ INS/13		<b>Name:</b> Intelligent Systems			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week: 2 For the study period: 26</b> <b>Methods of study:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of study:</b> 2.					
<b>Level of study:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b>					
<b>Results of education:</b>					
<b>Brief syllabus:</b>					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 89					
A	B	C	D	E	FX
52.81	17.98	10.11	8.99	4.49	5.62
<b>Teacher:</b> Dr. habil. András Molnár, PhD.					
<b>Date of last update:</b> 19.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KPD/ MEP2/15		<b>Name:</b> Mediálna pedagogika			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present					
<b>Number of credits:</b> 1					
<b>Recommended semester/trimester of study:</b> 1.					
<b>Level of study:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b> - Written and practical exams					
<b>Results of education:</b> <ul style="list-style-type: none"> <li>• Skill level to use multimedia methods for the environment</li> <li>• Development of Critical Thinking.</li> <li>• The student uses and develops critical thinking and information literacy skills.</li> </ul>					
<b>Brief syllabus:</b> <ol style="list-style-type: none"> <li>1. Basics of Media Education - repeat</li> <li>2nd-3rd Information literacy - Information Society</li> <li>4. The crowd and the media - communication and manipulation</li> <li>5th-6th Understanding analysis: moving images, text, background, image material</li> <li>7th-8th Analysis of a floating text or multimedia background</li> <li>9th-10th Critical Thinking</li> <li>11-12. real Mao</li> <li>13. Summary</li> </ol>					
<b>Literature:</b> The presentation material.					
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian or Slovak Language					
<b>Notes:</b> The development of knowledge to solve problems multimedia environment Sensitivity to problems resources Projector, computer, Internet connection, pointers					
<b>Evaluation of subjects</b> Total number of evaluated students: 34					
A	B	C	D	E	FX
0.0	5.88	47.06	8.82	38.24	0.0

**Teacher:** Dr. habil. Ádám István Nagy, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/ MLR/12	<b>Name:</b> Maďarská ľudová rozprávka
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester a written test (50%). The course ends with test (50%). The condition for the successful max. score min. 50%. The evaluation stages: A - 90 to 100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%.	
<b>Results of education:</b> The course successful students gain knowledge of Hungarian folk tale characteristics of its location in a European context, as well as sorting, grouping, etc. opportunities.	
<b>Brief syllabus:</b> Basic Concepts: tales and legends, variant and invariant affinity. History Research. The tales characterization. Classification experiments. National and international folk tale catalogs. Types Tale (Fairy tales, short stories tales, animal tales, etc.).	
<b>Literature:</b> Grimm, Jacob és Wilhelm: Családi mesék. Pozsony: Kalligram 2009 Grimm, Jacob és Wilhelm: Német mondák. Pozsony: Kalligram 2009 Komorovský, Ján: Kráľ Matej Korvín v ľudovej prozaickej slovesnosti. Bratislava 1957. Liszka József: Bevezetés a folklórisztikába. Dunaszerdahely 2010 Liszka József: Átmenetek folklór és nem-folklór határán. Komárom 2013 Lüthi, Max: Volksmärchen und Volkssage. Zwei Grundformen erzählender Dichtung. Bern–München: Francke Verlag 1975 Melicherčík, Andrej: Slovenský folklór. Chrestomatia. Bratislava 1959 Michálek Ján: Čarovné zrkadlo. Výber zo slovenskej ľudovej slovesnosti. Bratislava 1973 [azóta több kiadásban is!] Ortutay Gyula: Variáns, invariáns, affinitás. A szájhagyományozó műveltség törvényszerűségei. In uő.: A nép művészete. Budapest: Gondolat 1981, 9–53. p. Propp, Vlagyimir: A varázsmese történeti gyökerei. Budapest: L'Harmattan 2005 Vércse Miklós ford. és összeállította: Szlovák népmesék. Dunaszerdahely: Lilium Aurum 2008 Voigt Vilmos: Meseszó. Tanulmányok mesékről és mesekutatásról. Budapest: MTA–ELTE 2007–2009	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian, Slovak or Germany Language	

**Notes:****Evaluation of subjects**

Total number of evaluated students: 24

A	B	C	D	E	FX
45.83	20.83	0.0	0.0	12.5	20.83

**Teacher:** Dr. habil. PhDr. József Liszka, PhD.**Date of last update:** 14.06.2016**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/ MVOL/16	<b>Name:</b> Methodology of Literature Search
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 2 <b>For the study period:</b> 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of study:</b> 2., 4.	
<b>Level of study:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> During the semester each undergraduate have to draw up a term paper complying with the requirements (which values 30 points) and to successfully accomplish the written examination (which values 70 points). For grade A at least 90 points, for B at least 80 points, for C at least 70 points, for D at least 60 points and for E at least 50 points need to be achieved.	
<b>Results of education:</b> The goal of the subject is to introduce the undergraduates to the basic electronic information sources and the methods of the information collecting. After fulfilling the subject the undergraduates will be capable to prepare qualitative seminar works, final essays and other scientific papers.	
<b>Brief syllabus:</b> <ol style="list-style-type: none"><li>1. The library and its functions</li><li>2. Document types</li><li>3. Library catalogues and their function</li><li>4. The University Library of J. Selye University</li><li>5. Search techniques in the electronic catalogues</li><li>6. The types of bibliographies</li><li>7. E-libraries, archives</li><li>8. Literature databases</li><li>9. Web of Science, SCOPUS</li><li>10. E-sources</li><li>11. EBSCO and other available licence-based e-sources</li><li>12. Creation of bibliographic references and reference registers</li><li>13. How to prepare term papers, final essays and other scientific works</li></ol>	
<b>Literature:</b> <ol style="list-style-type: none"><li>1. BABBIE, E. A társadalomtudományi kutatás gyakorlata. Budapest : Balassi, 2000.</li><li>2. ECO, U. Hogyan írjunk szakdolgozatot? Budapest : Gondolat, 1991.</li><li>3. FALUS, I. Bevezetés a pedagógiai kutatás módszereibe. Budapest : Műszaki Kvk., 2004.</li><li>4. KATUŠČÁK, Dušan. 1998. Ako píšat' vysokoškolské a kvalifikačné práce. Druhé doplnené vydanie. Bratislava : Stimul, 1998. ISBN 80-85697-82-3</li></ol>	

5. KATUŠČÁK, Dušan. 2005. Citovanie a zoznam bibliografických odkazov v práci. In: MEŠKO, Dušan – KATUŠČÁK, Dušan et al.: Akademická príručka. Druhé doplnené vydanie. Martin : Osveta, 2005, s. 215-238. ISBN 80-8063-200-6
6. KIMLIČKA, Štefan. 2004. Príklady citovania podľa ISO 690 a ISO 690-2 [online]. Bratislava : Katedra knižničnej a informačnej vedy FiFUK, 2004 [cit. 24. novembra 2015]. Dostupné na: < [http://vili.uniba.sk/AK/citovanie\\_prikklady.pdf](http://vili.uniba.sk/AK/citovanie_prikklady.pdf)>
7. Smernica rektora č. 7/2011 o úprave, registrácii, sprístupnení a archivácii záverečných prác na Univerzite J. Selyeho v Komárne. 19 s.
8. STN 01 6910: 1999. Pravidlá písania a úpravy písomností. Bratislava : Slovenský ústav technickej normalizácie.
9. STN ISO 690: 1998. Dokumentácia. Bibliografické odkazy. Obsah, forma a štruktúra. Bratislava : Slovenský ústav technickej normalizácie – Vydavateľstvo.
10. STN ISO 690-2. 2001. Informácie a dokumentácia. Bibliografické citácie. Časť 2: Elektronické dokumenty alebo ich časti. Bratislava : Slovenský ústav technickej normalizácie.
11. SZABÓ, K. Kommunikáció felsőfokon. Budapest : Kossuth, 2001.
12. TUREK, Ivan. 1999. Ako písať záverečnú prácu. 3. vydanie. Prešov : Metodické centrum Prešov, 1999. ISBN 80-8045-161-3
13. E-zdroje CVTI (<http://ezproxy.cvtisr.sk/>)

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

hungarian, slovak

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 52

A	B	C	D	E	FX
11.54	7.69	13.46	15.38	25.0	26.92

**Teacher:**

**Date of last update:** 30.01.2017

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Mdm/ PST/15	<b>Name:</b> Pravdepodobnosť a základy štatistiky
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 / 2 / 0 <b>For the study period:</b> 13 / 26 / 0 <b>Methods of study:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> The course is finished by a written exam. For assessment A should be obtained at least 90 points, for assessment B at least 80 points, for assessment C at least 70 points, for assessment D at least 60 points, for assessment E at least 50 points. The assessment will count points earned by individual work (20%).	
<b>Results of education:</b> The successful completion of the course gives basic knowledge from probability theory and an overview of descriptive statistics methods. The student understands the basic concepts and know about the different formulas for calculating probability. Using random variables the student describes random events and calculate its numerical characteristics. Students master the basic methods of descriptive statistics to analyze the results of random experiments.	
<b>Brief syllabus:</b> 1. Random events. Operations with random events. 2. Probability of random events. Definition of the probability. The Kolmogorovs field of probability. 3. Conditional and total probability. Bayes theorem. 4. Independence of events. Bernoulli scheme. 5. Random variable. Probability distribution, probability density function. 6. Characteristics of random variable. 7. Discrete distributions. Expected value and standard deviation. Calculations of probability. 8. Continuous distributions. Probability density function, expected value and standard deviation. Calculations of probability. 9. Laws of large numbers. Central limit theorem. 10. Introduction to descriptive statistics. Statistical methods of the analysis of random experiment. 11. Frequency analysis and graphical display of data. 12. Measures of central tendency and variability. 13. Statistical relationship between data.	
<b>Literature:</b> Bukor J., Árki Z., Fehér Z.: Valószínűségszámítás. 1. vyd. Komárom : Selye János Egyetem Gazdaságtudományi Kara, 2010. - 120s. - ISBN 978-80-89234-94-3. Obádovics, Gy.: Valószínűségszámítás és matematikai statisztika, SCOLAR, Budapest, 2003. 302 s. ISBN 963 9534 005. Nemetz T., Wintshe G.: Valószínűségszámítás és statisztika mindenkinek. - Szeged : Bolyai Intézet POLYGON, 1999. - 243 s. ISSN 1218-4071. Nemetz T.: Valószínűségszámítás : Speciális matematika tankönyvek. - 4., változatlan utánnomás. - Budapest : Typotex kiadó, 2010. - 292 s. - ISBN 978 963 279 164 7. Nagy-György J., Osztyényiné Krauczai É., Székely	

L.: Valószínűségszámítás és statisztika példatár. - 3. vyd. - Szeged : Szegedi Egyetemi Kiadó POLYGON, 2010. - 111 s. ISSN 1417-0590.

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

hungarian

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 90

A	B	C	D	E	FX
7.78	13.33	27.78	22.22	25.56	3.33

**Teacher:** RNDr. Zoltán Fehér, PhD.

**Date of last update:** 19.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KMI/Mdm/ STP/15	<b>Name:</b> Štatistika v praxi
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Seminar / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 0 / 2 / 0 <b>For the study period:</b> 0 / 26 / 0 <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> The course is finished by a written exam. For assessment A should be obtained at least 90 points, for assessment B at least 80 points, for assessment C at least 70 points, for assessment D at least 60 points, for assessment E at least 50 points. The assessment will count points earned by individual work (20%).	
<b>Results of education:</b> The successful completion of the course gives an overview of inductive statistics methods and students obtain skills to work in computer systems. The student understands the basic concepts of the theory of estimations, of hypothesis testing and correlation and regression analysis. Students are able to apply theoretical knowledge to discover the real, social and other processes and also in practical evaluation of research results in various fields. Students master the use of statistical software to analyze statistical data.	
<b>Brief syllabus:</b> 1. Basic concepts of inductive statistics. Population and sample. 2. Theory of estimations. Point estimation, basic properties of estimators. Maximum likelihood method. Applications. 4. Interval estimations. Confidence interval for the mean, variance, ratio. 5. Estimations in computer systems. 6. Hypothesis testing. Parametric and non-parametric tests. 7. Hypothesis testing of parameters of Normal distribution, and Binomial Distribution. 8. Non-parametric tests of normality and independence. 9. Hypothesis testing in computer systems. 10. Correlation analysis. Correlation coefficient. 11. Linear regression model. 12. Correlation and regression analysis in computer systems.	
<b>Literature:</b> Petres T.: Statisztika. Szeged : JATEPress, 2003. 272s. ISBN 0242073. Petres T.: Statisztika feladatgyűjtemény. Szeged : JATEPress, 2003. 85 s. ISBN 0202412. Borovkov A. A.: Matematikai statisztika: Paraméterek becslése, Hipotézisvizsgálat. 1. vyd. Budapest : Typotex Elektronikus Kiadó Kft., 1999. 633 s. ISBN 978-963-279-707-6. Lukács O.: Matematikai statisztika. Budapest : Műszaki Könyvkiadó, 2003. 570 s. ISBN 963 16 3036 6.	
<b>Language, knowledge of which is necessary to complete a course:</b> hungarian	
<b>Notes:</b>	

**Evaluation of subjects**

Total number of evaluated students: 75

A	B	C	D	E	FX
6.67	12.0	25.33	28.0	22.67	5.33

**Teacher:** RNDr. Zoltán Fehér, PhD.**Date of last update:** 19.06.2016**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KPD/ NPM/14		<b>Name:</b> Nonprofit management			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present					
<b>Number of credits:</b> 1					
<b>Recommended semester/trimester of study:</b> 1.					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b> Oral examination in which the students prove their theoretical knowledge, problem-sensitivity and informedness. An essay can be equivalent (by prior arrangement).					
<b>Results of education:</b> The course is designed to introduce students the basics of civil society, particularly the non-profit specifics. The student has an extensive knowledge of the non-profit sector, • The student has an extensive knowledge of civil organizations and attitude, • The student knows the basic details of the non-profit sector.					
<b>Brief syllabus:</b> 1. Civil society and non-profit sector – introduction. 2. Civil basics, definitions, theories, 3. Volunteering, public benefit, two-dimensional evaluation, 4. Types of non-profit organizations 5. Nonprofit data. 6. Organization management: organization dynamics, organizational culture 7. Strategic planning, strategy theory , 8. The strategy development process, 9-10. The strategic document 11 decision-making, negotiations 12. creative methods, 13 Summary					
<b>Literature:</b> Nagy-Nizák-Vercseg: Civil társadalom – Nonprofit világ, UISZ Alapítvány, Budapest, 2014					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 57					
A	B	C	D	E	FX
12.28	57.89	22.81	3.51	3.51	0.0
<b>Teacher:</b> Dr. habil. Ádám István Nagy, PhD.					
<b>Date of last update:</b> 14.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KPD/ NPM2/14		<b>Name:</b> Nonprofit management 2			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present					
<b>Number of credits:</b> 1					
<b>Recommended semester/trimester of study:</b> 2.					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b> Active participation and oral examination. An essay can be equivalent (by prior arrangement).					
<b>Results of education:</b> The course is designed to: enable the student to use project management methodology, particularly to non-profit specifics. Learning outcomes and competences: the student will be able to use the basics of project planning					
<b>Brief syllabus:</b> 1. Civil society and non-profit sector – introduction, 2. Thee kick-off document 3. Project goal and integration management. 4-5. Project Human Resource Management 6-7. Project Financial Management 8-9. Project Human Resource Management 10. Project Time Management, 11 Project Risk Management 12 13 Project Communications Management 13. Summary					
<b>Literature:</b> Nagy-Nizák-Vercseg: Civil társadalom – Nonprofit világ, UISZ Alapítvány, Budapest, 2014 www.minedu.sk www.eurostadt.eu.com www.foruminst.sk					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b> Lecture with interactive techniques					
<b>Evaluation of subjects</b> Total number of evaluated students: 10					
A	B	C	D	E	FX
10.0	50.0	20.0	10.0	10.0	0.0
<b>Teacher:</b> Dr. habil. Ádám István Nagy, PhD.					
<b>Date of last update:</b> 14.06.2016					

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KIN/NS/ IN/09		<b>Name:</b> Neural Networks			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture / Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 / 1 <b>For the study period:</b> 13 / 13 <b>Methods of study:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of study:</b> 1.					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b>					
<b>Results of education:</b>					
<b>Brief syllabus:</b>					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 38					
A	B	C	D	E	FX
57.89	15.79	26.32	0.0	0.0	0.0
<b>Teacher:</b> prof. RNDr. Tibor Kmet', CSc.					
<b>Date of last update:</b> 19.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KMI/PRP/13		<b>Name:</b> Programming Processors - ASSEMBLER			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 2 <b>For the study period:</b> 26 <b>Methods of study:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of study:</b> 2.					
<b>Level of study:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b>					
<b>Results of education:</b>					
<b>Brief syllabus:</b>					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 38					
A	B	C	D	E	FX
26.32	21.05	15.79	21.05	15.79	0.0
<b>Teacher:</b> Dr. habil. András Molnár, PhD.					
<b>Date of last update:</b> 29.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteeprof. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KIN/ROB/11		<b>Name:</b> Robotics			
<b>Types, range and methods of educational activities:</b>					
Form of study: Practical					
<b>Recommended extent of course ( in hours ):</b>					
Per week: 2 For the study period: 26					
Methods of study: present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of study:</b> 2.					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b>					
<b>Results of education:</b>					
<b>Brief syllabus:</b>					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b>					
<b>Notes:</b>					
<b>Evaluation of subjects</b>					
Total number of evaluated students: 60					
A	B	C	D	E	FX
91.67	0.0	5.0	0.0	0.0	3.33
<b>Teacher:</b> Ing. Ondrej Takáč, PhD.					
<b>Date of last update:</b> 19.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KPD/SZdm/ HPP/15		<b>Name:</b> Formulation and evaluation of educational programs			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of study:</b> 1.					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b> The course concludes with an assessment. The student assessment during the semester is an independent work, for which can receive 60 points. The semester final assessment is to protect this work, for which can get 40 points. The ratings scale: A - 90 100% B - 80% -89 C - -79 70%, D - 60 to 69%, E - 50 -59%.					
<b>Results of education:</b> Students will be able to: - understand and tell the steps the preparation of educational programs - apply these steps in practical tasks - to evaluate the quality of an educational program.					
<b>Brief syllabus:</b> The concept and elements of the educational program. Steps to elaborate the project. Project-design methods and tools. The analysis of needs and target groups. Education goals as a basis for planning. Taxonomy of educational objectives in the preparation of educational programs. The evaluation as a part of the educational program. The curriculum and syllabus preparation, limiting factors.					
<b>Literature:</b> Prášilová Michaela. Tvorba vzdělávacího programu. - 1. vyd. - Praha : TRITON, 2006. - 191 s. - ISBN 80-7254712-7. Pasch, Marvin, Gardner, Trevor G. 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.					
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian or Slovak Language					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 62					
A	B	C	D	E	FX
59.68	20.97	9.68	1.61	8.06	0.0
<b>Teacher:</b> Dr. habil. PaedDr. Kinga Horváth, PhD., Dr. habil. Ádám István Nagy, PhD., Dr. habil. Ing. István Szököl, PhD.					
<b>Date of last update:</b> 14.06.2016					

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/SZdm/ KSA/15	<b>Name:</b> Cultural and Social Anthropology
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> If students fulfill the subject they will have suitable knowledge about the study of ethnography. They will get practical competences too, which they can apply in their future pedagogical practices.	
<b>Brief syllabus:</b> What is ethnography? What does cultural and social anthropology mean? What is European ethnology? The description of the Hungarian folk art, a short historical review of European ethnography and ethnology, the sources of ethnography and its search manners, the possibilities of the assessment of several searches (construction or reconstruction?). Summary: the possibilities of its usage in the educational practice.	
<b>Literature:</b> Balassa Iván–Ortutay Gyula: Magyar néprajz. Budapest: Corvina Kiadó 1979. Liszka József: Bevezetés a néprajzba. A magyar néprajz/ európai etnológia alapjai. Dunaszerdahely: Lilium Aurum 2006 Liszka József: Átmenetek. Folklor és nem-folklor határán. Komárom: Selye János Egyetem Tanárképző Kara 2013 /Monographiae Comaromienses 12./ Magyar néprajzi lexikon 1–5. Budapest: Akadémiai Kiadó 1977–1982. Tradičná ľudová kultúra Slovenska slovom a obrazom. Elektronická encyklopédia ( <a href="http://www.ludovakultura.sk/index.php?id=11">http://www.ludovakultura.sk/index.php?id=11</a> ) Voigt Vilmos: Alapismereti bevezetés a néprajz iránt érdeklődő hallgatóknak. Debrecen: Kossuth Lajos Tudományegyetem Néprajzi Tanszék 1989 /Néprajz egyetemi hallgatóknak 1./	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian or Slovak Language	
<b>Notes:</b>	
<b>Evaluation of subjects</b>	

Total number of evaluated students: 124

A	B	C	D	E	FX
30.65	29.03	24.19	13.71	2.42	0.0

**Teacher:** Dr. habil. PhDr. József Liszka, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/SZdm/ MEP/15	<b>Name:</b> Methodology of pedagogical research
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> Developing a research plan and defending it – evaluation: a maximum of 50 points, successfully passing a test – evaluation: a maximum of 50 points, cumulative performance evaluation: 100-90 points/A, 89-90 points/B, 79-70 points/C, 69 – 60 points/D, 59 – 50 points/E, less than 50 points/ Fx	
<b>Results of education:</b> Students should be able to develop a research plan, be familiar with the research methodology, formulate hypotheses and research questions, realize a research and evaluate its data relevantly.	
<b>Brief syllabus:</b> Research and its environment. The methodology of research. Pedagogical research: quantitative and qualitative methods. Project techniques. Triangulation, validity, reliability. Setting the aim of the research, formulating hypotheses and research questions. The procedure of the research plan. Realizing and evaluating the research	
<b>Literature:</b> Albert Sándor: A pedagógiai kutatások alapjai. Dunaszerdahely : Lillium Aurum, 2005.100 s. ISBN 8080622817 Gavora Peter: Elektronická učebnica pedagogického výskumu. www.e-metodologia.fedu.uniba.sk Falus Iván: Bevezetés a pedagógiai kutatás módszereibe. Budapest : Keruban Könyvkiadó, 1993. 540 s. Silverman David: Ako robiť kvalitatívny výskum. Bratislava : Ikar. 2005. 328 s. ISBN 8055109044 Švec Štefan: Metodológia vied o výchove : Kvantitatívno-scientické a kvalitatívno-humanitné prístupy v edukačnom výskume. Bratislava : IRIS, 1998. 303 s. ISBN 8088778735	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian or Slovak Language	
<b>Notes:</b>	
<b>Evaluation of subjects</b> Total number of evaluated students: 360	

A	B	C	D	E	FX
20.28	18.89	17.22	18.89	20.0	4.72
<b>Teacher:</b> prof. Dr. András Németh, DSc., Dr. habil. Ing. István Szököl, PhD.					
<b>Date of last update:</b> 14.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/SZdm/ PEP/15	<b>Name:</b> Educational psychology
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week: 2 For the study period: 26</b> <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> Student has acquired bipolarity and psychological principles of teaching and learning, effective model of learning and application of differentiation for student's success in the school.	
<b>Brief syllabus:</b> Educational psychology as the specific discipline of psychology – defining the basic concepts. Bipolarity of the educational process. Educational impact and indicators. Optimalizational learning process. Principles of learning. Interest and memory as indicators of learning. Convergent and divergent tasks. Multiple intelligences and development of creativity.	
<b>Literature:</b> Bagdy Emőke: Személyiségfejlesztő módszerek az iskolában. Budapest : Nemzeti Tankönyvkiadó, 2002. 308 s. ISBN 9631922359 Bordás Sándor, Forró Zsuzsa, Németh Margit, Stredl Terézia: Pszichológiai jegyzetek. 3. vyd. Komárom : Valeur s.r.o., 2009. 320s. ISBN 9788089234851 Hvozdík Ján: Základy školskej psychológie. 1. vyd. Bratislava : Slovenské Pedagogické Nakladateľstvo, 1986. 360s. Zelina Miron: Aktivizácia a motivácia žiakov na vyučovaní. Krajský pedagogický ústav v Prešove, 1991. 73 s. ISBN 0006427 Zelina Miron: Stratégie a metódy rozvoja osobnosti : Metódy výchovy. 2. vyd. Bratislava : Iris, 1996. 234 s. ISBN 8096701347	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian or Slovak Language	
<b>Notes:</b>	
<b>Evaluation of subjects</b> Total number of evaluated students: 403	

A	B	C	D	E	FX
49.38	20.84	12.41	8.68	7.2	1.49
<b>Teacher:</b> Dr. habil. Vilmos Vass, PhD.					
<b>Date of last update:</b> 14.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/SZdm/ POP/15	<b>Name:</b> Comparative Education
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> Evolution: A – 90 -100%, B – 80 -89%, C – 70 -79%, D – 60 - 69%, E – 50 -59%.	
<b>Results of education:</b> Student has studied the educational program sin the European context, methodology of comaparative education analyzing the data of PISA and OECD monitoring.	
<b>Brief syllabus:</b> Specific disciplines of education. Comparative education – definition, mission. Educational alternatives, programs – basic concepts. International surveys and evaluation: PISA, OECD, national evaluation – monitor. Comparing school systems in Europe. Framework and opportunities of evaluations and assessment. Data and results of local, regional, national and international evaluations. Objectivity and subjectivity of assessment. Modification and impelentation of data.	
<b>Literature:</b> Albert Sándor: Az iskolai és óvodai oktatási programok kialakításáról. Komárno : Univerzita J.Selyeho, 2009. 121 s. ISBN 9788089234790 Kovátsné Németh Mária: Fenntarthatóság, pedagógia, kutatás. Győr : Nyugat-Magyarországi Egyetem Apáczai Csere János Kar, 2007. 227 s. ISBN 9789639364851 Kovátsné Németh Mária: Reformpedagógiai koncepciók, alternatív megoldások. Komárno : Selye János Egyetem, 2007. 330 s. ISBN 9788089234349 Pukánszky Béla: A gyermek évszázada. Budapest : Osiris, 2000. 166 s. ISBN 9633797705 Švecová Valéria: Základy pedagogiky. Technická univerzita v Košiciach, 1998. 124 s. ISBN 8070993235 Turek Ivan: Školstvo v štátoch OECD a EÚ. Bratislava : Metodické centrum, 2001. 120 s. ISBN 8080521077 Zelina Miron: Alternatívne školstvo : alternatívne školy, alternatívna pedagogika, alternatívne pedagogické koncepcie a smery. Bratislava : IRIS, 2000. 257 s. ISBN 8088778980	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian or Slovak Language	
<b>Notes:</b>	

**Evaluation of subjects**

Total number of evaluated students: 255

A	B	C	D	E	FX
39.61	34.51	20.78	3.92	1.18	0.0

**Teacher:** Dr. habil. Vilmos Vass, PhD.**Date of last update:** 14.06.2016**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/SZdm/ PSO/15	<b>Name:</b> Psychology of Personality
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> 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%.	
<b>Results of education:</b> Student will learn about the representants and trends within the personality psychology, such as typology, structure of personality and about the strong and weak sides of the personality affecting success in the school.	
<b>Brief syllabus:</b> Definition of the special psychological discipline, basic terms. Representants and their theories: Hippocrates, Pavlov, Jung, Eysenck. Rogers, Gordon. Structure of personality. Gardner: multifactor intelligence, Emotional intelligence and its development in the school. Psycho-pathology. Coping and healthy personality.	
<b>Literature:</b> Calvin S. Hall, Gardner Lindzey, John C. Loehlin, Martin Manosevitz: Psychológia osobnosti : Úvod do teórie osobnosti. 1. vyd. Bratislava : Slovenské pedagogické nakladateľstvo, 1997. 510 s. ISBN 8008009942 Jung C. G.: A személyiség fejlődése : C. G. Jung összegyűjtött munkái tizenhetedik kötet. 1. vyd. Budapest : Scolar Kiadó, 2008. 208 s. ISBN 9789632440026 Ranschburg Jenő: Az érzelem és a jellem lélektanáról. Budapest : Okker Kiadó, 2003. 304. ISBN 9637315780. Ranschburg Jenő: Pszichológiai rendellenességek gyermekkorban. Budapest : Nemzeti Tankönyvkiadó, 1998. 200 s. ISBN 9631927008	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian or Slovak Language	
<b>Notes:</b>	
<b>Evaluation of subjects</b> Total number of evaluated students: 413	

A	B	C	D	E	FX
39.71	26.15	24.94	7.51	1.69	0.0
<b>Teacher:</b> prof. Dr. Béla István Pukánszki, DSc., PaedDr. Terézia Strédl, PhD.					
<b>Date of last update:</b> 14.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteeprof. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/SZdm/ PSV/15	<b>Name:</b> Personal and social education in lifelong learning
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 2 <b>For the study period:</b> 26 <b>Methods of study:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> The class is finished by an exam. The exam has to be passed at the end of the term in written form, as a knowledge test. At least 50% of the test has to be successful to pass the class. A mark – 90 -100%, B mark – 80 -89%, C mark – 70 -79%, D mark – 60 - 69%, E mark – 50 -59%	
<b>Results of education:</b> Students will acquire the fundamentals of lifelong learning and also the personal and social competences to perform as an educational professional	
<b>Brief syllabus:</b> The positions of the subject in the system of educational sciences. The beginnings, development and tasks of personal and social education. Competences of a teacher. Guidelines for creative and practical solutions during and educational process. Practical solutions to the issues in connection to the family, school and non-educational facilities during the personal development of pupils. individual approach of teacher to the pupil	
<b>Literature:</b> Albert Alexander, Turek Ivan: O zblížovaní vzdelávania v Slovenskej republike v Európskej únii. Košice : Technická univerzita, 2000. - 152 s. - ISBN 80-7099-525-4. Nagy József: Kompetencia alapú kritériumorientált PEDAGÓGIA. Szeged : Mozaik Kiadó, 2007. 383 s. ISBN 978 963 697 5418 Nagy József: XXI. század és nevelés. Budapest : Osiris Kiadó, 2002. 350 s. ISBN 963 379 769 1 Pukánszky Béla, Zsolnai Anikó: Pedagógiák az ezredfordulón : Szöveggyűjtemény. Budapest : Eötvös József Könyvkiadó, 1998. 246 s. ISBN 963 9024 38 4 Zelina Miron: Stratégie a metódy rozvoja osobnosti : Metódy výchovy. Bratislava : Iris, 1996. 234 s. ISBN 8096701347	
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian or Slovak Language	
<b>Notes:</b>	
<b>Evaluation of subjects</b> Total number of evaluated students: 413	

A	B	C	D	E	FX
48.91	27.6	17.68	4.36	1.45	0.0
<b>Teacher:</b> prof. Dr. Béla István Pukánszki, DSc.					
<b>Date of last update:</b> 14.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guarantee doc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/SZdm/ RAS/15	<b>Name:</b> Family and School
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Lecture <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> One written test during a term for 60 points, another 60 points could be earned for continuous in-class activities (essay). At least 40 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%	
<b>Results of education:</b> Passing this subject students will get wide knowledge and informations about family and school, as the basic institutions of education and their responsibilities during the personal development of children, also during education, socialisation, preventive educational and consulting activities. Students will be able to provide basic cooperation between the school and family, to integrate parents to the school-life and to communicate with them as with the partners of the school, also will understand the interactive relationship between family, school and other environment of children	
<b>Brief syllabus:</b> Family and school as basic educational institutions. Environment and education of people. Functions of the family. Educations within the family as a part of a historical development. Functions of the school. Cooperation between school and family. Family and their cooperation with school. Forms and levels of cooperation between family and school. Interpersonal teacher competences and relationships with the parents. Communications between school and family, cooperation possibilities	
<b>Literature:</b> Andorka Rudolf: Gyermek, család, történelem. Budapest: ARTT, 2001. 338. ISBN 9639211249 Gordon Thomas: A tanári hatékonyság fejlesztése. A T.E.T.-módszer. Budapest : Gondolat, 1991. 343 s. ISBN 963 282 600 0 Hernádi Miklós: Családbomlás az ezredfordulón. Budapest : Akadémiai, 2003. 172. ISBN 9630578190 Spéder Zsolt: Család és népesség-itthon és Európában. Budapest : Sajtóház Kiadó, 2003. 562. ISBN 9639211613 Petró András: Szülőknek az iskoláról. Budapest : Nemzeti Tankönyvkiadó, 1997. 208. ISBN 9631882993	

Rozinajová Helena: Pedagogika rodinného života pre učiteľov. Bratislava : Slovenské Pedagogické Nakladateľstvo, 1988. 267s.  
 Spéder Zsolt: Család és népeesség-itthon és Európában. Budapest : Sajtóház Kiadó, 2003. 562. ISBN 9639211613  
 Szretykó György: Globalizáció és család : A családszociológia új kihívásai. Pécs : Comenius Bt., 2002. - 160 s. ISBN 963 204 376 6  
 Trencsényi László: Hetedik nekifutás az értékek útvesztőjében. Budapesti Nevelő, 2009/2. [http://preview.fppti.hu/data/cms54391/2009\\_2.szam\\_teljes%29.pdf](http://preview.fppti.hu/data/cms54391/2009_2.szam_teljes%29.pdf)  
 Mérei, F.: Társ és csoport, Akadémiai Kiadó, Budapest, 1989  
 Satirová, V.: Kniha o rodine, SVAN Praha, 1994  
 Rozinajová, H.: Pedagogika rodinného života, SPN Bratislava, 1988

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

Hungarian or Slovak Language

**Notes:**

**Evaluation of subjects**

Total number of evaluated students: 320

A	B	C	D	E	FX
23.44	24.38	17.5	13.75	19.38	1.56

**Teacher:** Dr. habil. Ádám István Nagy, PhD., Dr. habil. Dr. Mária Magdolna Németh, CSc.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc. Guaranteedoc. RNDr. Róbert Gyepes, PhD. Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KPD/SZdm/ TPO/15	<b>Name:</b> Theoretical knowledge of the field of study
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> <b>Recommended extent of course ( in hours ):</b> <b>Per week: For the study period:</b> <b>Methods of study:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of study:</b>	
<b>Level of study:</b> II.	
<b>Prerequisites:</b> KPD/SZdm/PDI/15 and KPD/SZdm/PEP/15 and KPD/SZdm/SCV/15 and KPD/SZdm/VPU/15 and KPD/SZdm/HPP/15 and KPD/SZdm/PEP/15 and KPD/SZdm/KSA/15 and KPD/SZdm/PSV/15	
<b>Conditions for passing the subject:</b> Final Examination of the theoretical knowledge of their specialized study, which evaluated the selection board. Evolution: A – 90 -100%, B – 80 -89%, C – 70 -79%, D – 60 - 69%, E – 50 -59%.	
<b>Results of education:</b> Graduate of the Department of Post-Secondary Teaching subjects through common sociálnovedného, pedagogical and psychological basis of teaching disciplines master basic content of their specialization, the principles of its structure, is familiar with the methodology of content production department and its broader cultural and social contexts. With this contains evidence treated as a product of human (scientific) activities, and in this context it is able to design the didactic intents and purposes. In addition to managing the teaching competence (design, implementation and reflection of classroom instruction) it is able to participate in the development of methodological materials for teaching.	
<b>Brief syllabus:</b> Thesis: 1. The value system of traditional and innovative schools. The content of the curriculum and its innovation, project teaching 2. Concept of development of schools to reform education 3. Impact of the learning environment for the formation of independent learning in reform pedagogy. Principles of holistic education, Jena Plan or Dalton Plan. 4. The process of educational research and data collection in education research. 5. The functions of schools and their importance. 6. Management of schools, educational activities and financing of education. 7. Quality, standards and quality management systems 8. The objectives and methodology of self-assessment, vision and mission schools. 9. Comparative Education in the system of pedagogical sciences. 10. The importance of comparative pedagogy in teaching practice. 11. Reform education and personal development.	

12. The development of personality and the possibilities for its development.
13. Educational problems: difficulties, impairments, limitations
14. Intercultural and multicultural education - definition, development and dimensions.
15. The primary socialization
16. School socialization
- 17 socio-cultural environment
18. The processes of pedagogical diagnostics.
19. cooperation between schools and families.
20. The role of family and school in education.

**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: 3

A	B	C	D	E	FX
66.67	33.33	0.0	0.0	0.0	0.0

**Teacher:**

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University					
<b>Name of the faculty:</b> Faculty of Education					
<b>Code:</b> KPD/SZdm/ TVZ/15		<b>Name:</b> Education technology			
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Seminar <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present					
<b>Number of credits:</b> 1					
<b>Recommended semester/trimester of study:</b>					
<b>Level of study:</b> II.					
<b>Prerequisites:</b>					
<b>Conditions for passing the subject:</b> Awritten test duringthesemester (50 points), and task-releases (50 points). Evaluation: A - 90 to 100%, B - 80% -89 C - -79% 70, D - 60-69%, E - 50 -59%.					
<b>Results of education:</b> Knowingaboutthephilosophy of informationsociety andcomparison of thetraditionalschool.					
<b>Brief syllabus:</b> Introduction - Description of thetraditionalschooleducation and informationsocietyeducation. Characteristics of theinformationsociety. Glossary: communication, digitization, computerization, globalization, digitalcapabilities, hazards of, propertyrights, thetheory of cognitiveprocessinthedigitalworld, teachingstyles, thepossibilities of ICT, teaching and learningforms and methods of thedigitalworld. E-books, e-learning, m-learning, teaching software. Knowledge Test. thefundamental of Computers. Multimediacomputers, interactivecommunicationineducation - chat, blogging, video conferencing,					
<b>Literature:</b>					
<b>Language, knowledge of which is necessary to complete a course:</b> Hungarian or Slovak Language					
<b>Notes:</b>					
<b>Evaluation of subjects</b> Total number of evaluated students: 582					
A	B	C	D	E	FX
54.98	19.42	8.08	3.26	13.75	0.52
<b>Teacher:</b> Dr. habil. Ing. István Szököl, PhD., Mgr. Ladislav Jaruska, PhD., Mgr. Katarína Szarka, PhD.					
<b>Date of last update:</b> 14.06.2016					
<b>Approved by:</b> Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.					

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KTVŠ/ ŠPH1a/TV/12	<b>Name:</b> Sport games 1
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> A (marked) 13 times in the PE lesson, B (marked) 12 times in the PE lesson, C (marked) 11 times in the PE lesson, D (marked) 10 times in the PE lesson, E (marked) 9 times in the PE lesson.	
<b>Results of education:</b> Create a personal need to moving. Basic elements, rule of the game, get to know different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
<b>Brief syllabus:</b> Volleyball: Accident prevention information. Shape up the hit types (setting and bumping hits). Serving and passing. Hits from stand and move. Continuous hits over the net. Shape ups and attack hits. Attack and defense moves. Blocks and receiving the serves. 2-2 plays. 6-6 free plays. Making competition and play situations. Specific skill development. True play. Competitions. Football: Accident prevention information. Passing, ball use skill development. Passing and moving with ball. Shoots. Ball holding games 2-2, 3-2. Attacking moves with ball. Defensive moves. Tactical elements exercises. Skill development with ball. Setting place play. Play football with passing rules. Use tactical elements in play. Playing football with true rules. Play football matches. Swimming: Accident prevention information. Review basic swim exercises, skill assessment. Glides and breathing. Practice kicks with equipment. Practice Backstroke arm stroke and leg kick. Backstroke technique improve exercises. Practice freestyle arm stroke and leg kick. Freestyle breathing technique. Freestyle technique improve exercises. Practice breaststroke arm stroke and leg kick. Breaststroke breathing technique. Breaststroke technique improve exercises. Swimming sets. Long way workouts. Starts and turns. Swimming race. Table tennis: Accident prevention information. Set up the hitting technique. Forehand pushes, shots. Backhand pushes, shots. Serves, and counter hits. Continuously hitting to a marked side of the table with correct technique. Continuously play freely. Hitting strength and technique developing. Attacking and defending moves, loop and push shots. Set up a continuously play. Directed hits. Changing side hitting. Plays. Competitions. Floorball: Accident prevention information. Rule of the sticks use and apply. Passes and ball receive. Ball control alone and passing in pairs. Shoots from standing. Shoots from moving and received ball shooting. Ball holding games. Attacking moves practicing. Defensive moves practicing. Tactical elements practicing. Fast attacking tactic practicing. Fast moves and received ball shooting. Playing floorball with rules. Competitions games. Fitness: Accident prevention	

information. Strength developing exercises for body shaping. Learn the correct set-up with exercises. Own body weight workouts, exercises with weights and workouts with fitness machines. Stretching skills workouts. Healthcare lifestyle. Aerobic: Accident prevention information. Musical dynamic workouts to improving cardiovascular endurance. Gymnastic with dancing elements. Hot-iron: Accident prevention information. Specific strengthening workouts. Developing endurance, fat burn strengthening muscles and bones, high up metabolism, reducing weight, bodybuilding with devices. Cross-fit: Accident prevention information. Specific strengthening workouts. Specific strengthening workouts. Developing endurance, fat burn strengthening muscles and bones, high up metabolism, reducing weight, bodybuilding own body weight workouts.

**Literature:**

Gál László, Sportjátékok II. (Sportjátékok elmélete és módszertana, kézilabdázás, röplabdázás) Nemzeti Tankönyvkiadó, 2003 ISBN:963 19 4584 7 Gál László, Kristóf László, Magyar György, Sportjátékok III. (Kosárlabdázás, labdarúgás, felkészítés-versenyzés) Nemzeti Tankönyvkiadó, Budapest, 1999 ISBN: 9631900215 FUTSAL Laws of the Game, [http://www.fifa.com/mm/document/footballdevelopment/refereeing/51/44/50/lawsofthegamefutsal2014\\_15\\_enu\\_neutral.pdf](http://www.fifa.com/mm/document/footballdevelopment/refereeing/51/44/50/lawsofthegamefutsal2014_15_enu_neutral.pdf) INTERNATIONAL FOOTBALL ASSOCIATION BOARD (IFAB), A labdarúgás játékszabályai 2014/2015 [http://www.nemzetisport.hu/data/files/NSstatok/szabalykonyv\\_201415.pdf](http://www.nemzetisport.hu/data/files/NSstatok/szabalykonyv_201415.pdf) Tóth Ákos, Sós Csaba, Egressy János, Az úszás tankönyve, Semmelweis Egyetem Testnevelési és Sporttudományi Kar (Budapest) , 2008, ISBN: 9789637166945 Michael Brooks Developing Swimmers © 2011 ISBN-13: 9781450411455 Magyar asztalitenisz szövetség, Asztalitenisz szabálykönyv [http://www.moatsz.hu/images/PDF/FTP/Szovetseg/szabalykonyvek/MOATSZ\\_szabalykonyv2012.pdf](http://www.moatsz.hu/images/PDF/FTP/Szovetseg/szabalykonyvek/MOATSZ_szabalykonyv2012.pdf) Magyar Röplabda Szövetség, A röplabdázás hivatalos játékszabályai 2015-2016, 2015. február [http://www.mrszjt.hu/szab\\_terem/jatekszab.pdf](http://www.mrszjt.hu/szab_terem/jatekszab.pdf) Edi és Martin Bachmann: 1005 röplabda játék és gyakorlat - Kézikönyv tanároknak, edzőknek, versenyzőknek, Dialóg Campus, 2000 Walter Bucher: 704 kézilabda játék és gyakorlat - Kézikönyv tanároknak, edzőknek, versenyzőknek Dialóg Campus, 2002 Walter Bucher: 1014 Asztalitenisz játék és gyakorlat, Dialóg Campus, 2004 Nemzetközi Floorball Szövetség, Játékszabályok, Szabályok és értelmezésük [http://www.hunfloorball.hu/\\_user/j%C3%A1t%C3%A9kszab%C3%A1lyok%202014.pdf](http://www.hunfloorball.hu/_user/j%C3%A1t%C3%A9kszab%C3%A1lyok%202014.pdf)

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

Hungarian or Slovak language

**Notes:**

Participation in the lessons.

**Evaluation of subjects**

Total number of evaluated students: 603

A	B	C	D	E	FX
64.18	10.95	13.76	3.48	7.46	0.17

**Teacher:** PaedDr. Beáta Dobay, PhD., PaedDr. Peter Židek, Péter Szabó, Mgr. Robin Pělucha, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KTVŠ/ ŠPH1b/TV/12	<b>Name:</b> Sport games 1
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> A (marked) 13 times in the PE lesson, B (marked) 12 times in the PE lesson, C (marked) 11 times in the PE lesson, D (marked) 10 times in the PE lesson, E (marked) 9 times in the PE lesson.	
<b>Results of education:</b> Create a personal need to moving. Basic elements, rule of the game, get to know different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
<b>Brief syllabus:</b> Volleyball: Accident prevention information. Shape up the hit types (setting and bumping hits). Serving and passing. Hits from stand and move. Continuous hits over the net. Shape ups and attack hits. Attack and defense moves. Blocks and receiving the serves. 2-2 plays. 6-6 free plays. Making competition and play situations. Specific skill development. True play. Competitions. Football: Accident prevention information. Passing, ball use skill development. Passing and moving with ball. Shoots. Ball holding games 2-2, 3-2. Attacking moves with ball. Defensive moves. Tactical elements exercises. Skill development with ball. Setting place play. Play football with passing rules. Use tactical elements in play. Playing football with true rules. Play football matches. Swimming: Accident prevention information. Review basic swim exercises, skill assessment. Glides and breathing. Practice kicks with equipment. Practice Backstroke arm stroke and leg kick. Backstroke technique improve exercises. Practice freestyle arm stroke and leg kick. Freestyle breathing technique. Freestyle technique improve exercises. Practice breaststroke arm stroke and leg kick. Breaststroke breathing technique. Breaststroke technique improve exercises. Swimming sets. Long way workouts. Starts and turns. Swimming race. Table tennis: Accident prevention information. Set up the hitting technique. Forehand pushes, shots. Backhand pushes, shots. Serves, and counter hits. Continuously hitting to a marked side of the table with correct technique. Continuously play freely. Hitting strength and technique developing. Attacking and defending moves, loop and push shots. Set up a continuously play. Directed hits. Changing side hitting. Plays. Competitions. Floorball: Accident prevention information. Rule of the sticks use and apply. Passes and ball receive. Ball control alone and passing in pairs. Shoots from standing. Shoots from moving and received ball shooting. Ball holding games. Attacking moves practicing. Defensive moves practicing. Tactical elements practicing. Fast attacking tactic practicing. Fast moves and received ball shooting. Playing floorball with rules. Competitions games. Fitness: Accident prevention	

information. Strength developing exercises for body shaping. Learn the correct set-up with exercises. Own body weight workouts, exercises with weights and workouts with fitness machines. Stretching skills workouts. Healthcare lifestyle. Aerobic: Accident prevention information. Musical dynamic workouts to improving cardiovascular endurance. Gymnastic with dancing elements. Hot-iron: Accident prevention information. Specific strengthening workouts. Developing endurance, fat burn strengthening muscles and bones, high up metabolism, reducing weight, bodybuilding with devices. Cross-fit: Accident prevention information. Specific strengthening workouts. Specific strengthening workouts. Developing endurance, fat burn strengthening muscles and bones, high up metabolism, reducing weight, bodybuilding own body weight workouts.

**Literature:**

Gál László, Sportjátékok II. (Sportjátékok elmélete és módszertana, kézilabdázás, röplabdázás) Nemzeti Tankönyvkiadó, 2003 ISBN:963 19 4584 7 Gál László, Kristóf László, Magyar György, Sportjátékok III. (Kosárlabdázás, labdarúgás, felkészítés-versenyzés) Nemzeti Tankönyvkiadó, Budapest, 1999 ISBN: 9631900215 FUTSAL Laws of the Game, [http://www.fifa.com/mm/document/footballdevelopment/refereeing/51/44/50/lawsofthegamefutsal2014\\_15\\_enu\\_neutral.pdf](http://www.fifa.com/mm/document/footballdevelopment/refereeing/51/44/50/lawsofthegamefutsal2014_15_enu_neutral.pdf) INTERNATIONAL FOOTBALL ASSOCIATION BOARD (IFAB), A labdarúgás játékszabályai 2014/2015 [http://www.nemzetisport.hu/data/files/NSstatok/szabalykonyv\\_201415.pdf](http://www.nemzetisport.hu/data/files/NSstatok/szabalykonyv_201415.pdf) Tóth Ákos, Sós Csaba, Egressy János, Az úszás tankönyve, Semmelweis Egyetem Testnevelési és Sporttudományi Kar (Budapest) , 2008, ISBN: 9789637166945 Michael Brooks Developing Swimmers © 2011 ISBN-13: 9781450411455 Magyar asztalitenisz szövetség, Asztalitenisz szabálykönyv [http://www.moatsz.hu/images/PDF/FTP/Szovetseg/szabalykonyvek/MOATSZ\\_szabalykonyv2012.pdf](http://www.moatsz.hu/images/PDF/FTP/Szovetseg/szabalykonyvek/MOATSZ_szabalykonyv2012.pdf) Magyar Röplabda Szövetség, A röplabdázás hivatalos játékszabályai 2015-2016, 2015. február [http://www.mrszjt.hu/szab\\_terem/jatekszab.pdf](http://www.mrszjt.hu/szab_terem/jatekszab.pdf) Edi és Martin Bachmann: 1005 röplabda játék és gyakorlat - Kézikönyv tanároknak, edzőknek, versenyzőknek, Dialóg Campus, 2000 Walter Bucher: 704 kézilabda játék és gyakorlat - Kézikönyv tanároknak, edzőknek, versenyzőknek Dialóg Campus, 2002 Walter Bucher: 1014 Asztalitenisz játék és gyakorlat, Dialóg Campus, 2004 Nemzetközi Floorball Szövetség, Játékszabályok, Szabályok és értelmezésük [http://www.hunfloorball.hu/\\_user/j%C3%A1t%C3%A9kszab%C3%A1lyok%202014.pdf](http://www.hunfloorball.hu/_user/j%C3%A1t%C3%A9kszab%C3%A1lyok%202014.pdf)

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

Hungarian or Slovak language

**Notes:**

Participation in the lessons.

**Evaluation of subjects**

Total number of evaluated students: 526

A	B	C	D	E	FX
63.31	10.46	11.98	7.03	6.65	0.57

**Teacher:** PaedDr. Beáta Dobay, PhD., PaedDr. Peter Židek, Péter Szabó, Mgr. Robin Pělucha, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KTVŠ/ ŠPH2a/TV/12	<b>Name:</b> Sport games 2
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 1.	
<b>Level of study:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> A (marked) 13 times in the PE lesson, B (marked) 12 times in the PE lesson, C (marked) 11 times in the PE lesson, D (marked) 10 times in the PE lesson, E (marked) 9 times in the PE lesson.	
<b>Results of education:</b> Create a personal need to moving. Basic elements, rule of the game, get to know different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
<b>Brief syllabus:</b> Volleyball: Accident prevention information. Shape up the hit types (setting and bumping hits). Serving and passing. Hits from stand and move. Continuous hits over the net. Shape ups and attack hits. Attack and defense moves. Blocks and receiving the serves. 2-2 plays. 6-6 free plays. Making competition and play situations. Specific skill development. True play. Competitions. Football: Accident prevention information. Passing, ball use skill development. Passing and moving with ball. Shoots. Ball holding games 2-2, 3-2. Attacking moves with ball. Defensive moves. Tactical elements exercises. Skill development with ball. Setting place play. Play football with passing rules. Use tactical elements in play. Playing football with true rules. Play football matches. Swimming: Accident prevention information. Review basic swim exercises, skill assessment. Glides and breathing. Practice kicks with equipment. Practice Backstroke arm stroke and leg kick. Backstroke technique improve exercises. Practice freestyle arm stroke and leg kick. Freestyle breathing technique. Freestyle technique improve exercises. Practice breaststroke arm stroke and leg kick. Breaststroke breathing technique. Breaststroke technique improve exercises. Swimming sets. Long way workouts. Starts and turns. Swimming race. Table tennis: Accident prevention information. Set up the hitting technique. Forehand pushes, shots. Backhand pushes, shots. Serves, and counter hits. Continuously hitting to a marked side of the table with correct technique. Continuously play freely. Hitting strength and technique developing. Attacking and defending moves, loop and push shots. Set up a continuously play. Directed hits. Changing side hitting. Plays. Competitions. Floorball: Accident prevention information. Rule of the sticks use and apply. Passes and ball receive. Ball control alone and passing in pairs. Shoots from standing. Shoots from moving and received ball shooting. Ball holding games. Attacking moves practicing. Defensive moves practicing. Tactical elements practicing. Fast attacking tactic practicing. Fast moves and received ball shooting. Playing floorball with rules. Competitions games. Fitness: Accident prevention	

information. Strength developing exercises for body shaping. Learn the correct set-up with exercises. Own body weight workouts, exercises with weights and workouts with fitness machines. Stretching skills workouts. Healthcare lifestyle. Aerobic: Accident prevention information. Musical dynamic workouts to improving cardiovascular endurance. Gymnastic with dancing elements. Hot-iron: Accident prevention information. Specific strengthening workouts. Developing endurance, fat burn strengthening muscles and bones, high up metabolism, reducing weight, bodybuilding with devices. Cross-fit: Accident prevention information. Specific strengthening workouts. Specific strengthening workouts. Developing endurance, fat burn strengthening muscles and bones, high up metabolism, reducing weight, bodybuilding own body weight workouts.

**Literature:**

Gál László, Sportjátékok II. (Sportjátékok elmélete és módszertana, kézilabdázás, röplabdázás) Nemzeti Tankönyvkiadó, 2003 ISBN:963 19 4584 7 Gál László, Kristóf László, Magyar György, Sportjátékok III. (Kosárlabdázás, labdarúgás, felkészítés-versenyzés) Nemzeti Tankönyvkiadó, Budapest, 1999 ISBN: 9631900215 FUTSAL Laws of the Game, [http://www.fifa.com/mm/document/footballdevelopment/refereeing/51/44/50/lawsofthegamefutsal2014\\_15\\_eneu\\_neutral.pdf](http://www.fifa.com/mm/document/footballdevelopment/refereeing/51/44/50/lawsofthegamefutsal2014_15_eneu_neutral.pdf) INTERNATIONAL FOOTBALL ASSOCIATION BOARD (IFAB), A labdarúgás játékszabályai 2014/2015 [http://www.nemzetisport.hu/data/files/NSstatok/szabalykonyv\\_201415.pdf](http://www.nemzetisport.hu/data/files/NSstatok/szabalykonyv_201415.pdf) Tóth Ákos, Sós Csaba, Egressy János, Az úszás tankönyve, Semmelweis Egyetem Testnevelési és Sporttudományi Kar (Budapest) , 2008, ISBN: 9789637166945 Michael Brooks Developing Swimmers © 2011 ISBN-13: 9781450411455 Magyar asztalitenisz szövetség, Asztalitenisz szabálykönyv [http://www.moatsz.hu/images/PDF/FTP/Szovetseg/szabalykonyvek/MOATSZ\\_szabalykonyv2012.pdf](http://www.moatsz.hu/images/PDF/FTP/Szovetseg/szabalykonyvek/MOATSZ_szabalykonyv2012.pdf) Magyar Röplabda Szövetség, A röplabdázás hivatalos játékszabályai 2015-2016, 2015. február [http://www.mrszjt.hu/szab\\_terem/jatekszab.pdf](http://www.mrszjt.hu/szab_terem/jatekszab.pdf) Edi és Martin Bachmann: 1005 röplabda játék és gyakorlat - Kézikönyv tanároknak, edzőknek, versenyzőknek, Dialóg Campus, 2000 Walter Bucher: 704 kézilabda játék és gyakorlat - Kézikönyv tanároknak, edzőknek, versenyzőknek Dialóg Campus, 2002 Walter Bucher: 1014 Asztalitenisz játék és gyakorlat, Dialóg Campus, 2004 Nemzetközi Floorball Szövetség, Játékszabályok, Szabályok és értelmezésük [http://www.hunfloorball.hu/\\_user/j%C3%A1t%C3%A9kszab%C3%A1lyok%202014.pdf](http://www.hunfloorball.hu/_user/j%C3%A1t%C3%A9kszab%C3%A1lyok%202014.pdf)

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

Hungarian or Slovakian language

**Notes:**

Participation in the lessons.

**Evaluation of subjects**

Total number of evaluated students: 445

A	B	C	D	E	FX
64.49	12.13	11.46	4.72	7.19	0.0

**Teacher:** PaedDr. Beáta Dobay, PhD., PaedDr. Peter Židek, Péter Szabó, Mgr. Robin Pělucha, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.

## INFORMATION SHEET

<b>Name of the university:</b> J. Selye University	
<b>Name of the faculty:</b> Faculty of Education	
<b>Code:</b> KTVŠ/ ŠPH2b/TV/12	<b>Name:</b> Sport games 2
<b>Types, range and methods of educational activities:</b> <b>Form of study:</b> Practical <b>Recommended extent of course ( in hours ):</b> <b>Per week:</b> 1 <b>For the study period:</b> 13 <b>Methods of study:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of study:</b> 2.	
<b>Level of study:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for passing the subject:</b> A (marked) 13 times in the PE lesson, B (marked) 12 times in the PE lesson, C (marked) 11 times in the PE lesson, D (marked) 10 times in the PE lesson, E (marked) 9 times in the PE lesson.	
<b>Results of education:</b> Create a personal need to moving. Basic elements, rule of the game, get to know different exercises. Motor skills development by specific exercises. Use new sport devices. PE moves practice. Use games, solve competition situations.	
<b>Brief syllabus:</b> Volleyball: Accident prevention information. Shape up the hit types (setting and bumping hits). Serving and passing. Hits from stand and move. Continuous hits over the net. Shape ups and attack hits. Attack and defense moves. Blocks and receiving the serves. 2-2 plays. 6-6 free plays. Making competition and play situations. Specific skill development. True play. Competitions. Football: Accident prevention information. Passing, ball use skill development. Passing and moving with ball. Shoots. Ball holding games 2-2, 3-2. Attacking moves with ball. Defensive moves. Tactical elements exercises. Skill development with ball. Setting place play. Play football with passing rules. Use tactical elements in play. Playing football with true rules. Play football matches. Swimming: Accident prevention information. Review basic swim exercises, skill assessment. Glides and breathing. Practice kicks with equipment. Practice Backstroke arm stroke and leg kick. Backstroke technique improve exercises. Practice freestyle arm stroke and leg kick. Freestyle breathing technique. Freestyle technique improve exercises. Practice breaststroke arm stroke and leg kick. Breaststroke breathing technique. Breaststroke technique improve exercises. Swimming sets. Long way workouts. Starts and turns. Swimming race. Table tennis: Accident prevention information. Set up the hitting technique. Forehand pushes, shots. Backhand pushes, shots. Serves, and counter hits. Continuously hitting to a marked side of the table with correct technique. Continuously play freely. Hitting strength and technique developing. Attacking and defending moves, loop and push shots. Set up a continuously play. Directed hits. Changing side hitting. Plays. Competitions. Floorball: Accident prevention information. Rule of the sticks use and apply. Passes and ball receive. Ball control alone and passing in pairs. Shoots from standing. Shoots from moving and received ball shooting. Ball holding games. Attacking moves practicing. Defensive moves practicing. Tactical elements practicing. Fast attacking tactic practicing. Fast moves and received ball shooting. Playing floorball with rules. Competitions games. Fitness: Accident prevention	

information. Strength developing exercises for body shaping. Learn the correct set-up with exercises. Own body weight workouts, exercises with weights and workouts with fitness machines. Stretching skills workouts. Healthcare lifestyle. Aerobic: Accident prevention information. Musical dynamic workouts to improving cardiovascular endurance. Gymnastic with dancing elements. Hot-iron: Accident prevention information. Specific strengthening workouts. Developing endurance, fat burn strengthening muscles and bones, high up metabolism, reducing weight, bodybuilding with devices. Cross-fit: Accident prevention information. Specific strengthening workouts. Specific strengthening workouts. Developing endurance, fat burn strengthening muscles and bones, high up metabolism, reducing weight, bodybuilding own body weight workouts.

**Literature:**

Gál László, Sportjátékok II. (Sportjátékok elmélete és módszertana, kézilabdázás, röplabdázás) Nemzeti Tankönyvkiadó, 2003 ISBN:963 19 4584 7 Gál László, Kristóf László, Magyar György, Sportjátékok III. (Kosárlabdázás, labdarúgás, felkészítés-versenyzés) Nemzeti Tankönyvkiadó, Budapest, 1999 ISBN: 9631900215 FUTSAL Laws of the Game, [http://www.fifa.com/mm/document/footballdevelopment/refereeing/51/44/50/lawsofthegamefutsal2014\\_15\\_eneu\\_neutral.pdf](http://www.fifa.com/mm/document/footballdevelopment/refereeing/51/44/50/lawsofthegamefutsal2014_15_eneu_neutral.pdf) INTERNATIONAL FOOTBALL ASSOCIATION BOARD (IFAB), A labdarúgás játékszabályai 2014/2015 [http://www.nemzetisport.hu/data/files/NSstatok/szabalykonyv\\_201415.pdf](http://www.nemzetisport.hu/data/files/NSstatok/szabalykonyv_201415.pdf) Tóth Ákos, Sós Csaba, Egressy János, Az úszás tankönyve, Semmelweis Egyetem Testnevelési és Sporttudományi Kar (Budapest) , 2008, ISBN: 9789637166945 Michael Brooks Developing Swimmers © 2011 ISBN-13: 9781450411455 Magyar asztalitenisz szövetség, Asztalitenisz szabálykönyv [http://www.moatsz.hu/images/PDF/FTP/Szovetseg/szabalykonyvek/MOATSZ\\_szabalykonyv2012.pdf](http://www.moatsz.hu/images/PDF/FTP/Szovetseg/szabalykonyvek/MOATSZ_szabalykonyv2012.pdf) Magyar Röplabda Szövetség, A röplabdázás hivatalos játékszabályai 2015-2016, 2015. február [http://www.mrszjt.hu/szab\\_terem/jatekszab.pdf](http://www.mrszjt.hu/szab_terem/jatekszab.pdf) Edi és Martin Bachmann: 1005 röplabda játék és gyakorlat - Kézikönyv tanároknak, edzőknek, versenyzőknek, Dialóg Campus, 2000 Walter Bucher: 704 kézilabda játék és gyakorlat - Kézikönyv tanároknak, edzőknek, versenyzőknek Dialóg Campus, 2002 Walter Bucher: 1014 Asztalitenisz játék és gyakorlat, Dialóg Campus, 2004 Nemzetközi Floorball Szövetség, Játékszabályok, Szabályok és értelmezésük [http://www.hunfloorball.hu/\\_user/j%C3%A1t%C3%A9kszab%C3%A1lyok%202014.pdf](http://www.hunfloorball.hu/_user/j%C3%A1t%C3%A9kszab%C3%A1lyok%202014.pdf)

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

Hungarian or Slovakian language

**Notes:**

Participation in the lessons.

**Evaluation of subjects**

Total number of evaluated students: 377

A	B	C	D	E	FX
63.66	11.67	10.88	6.37	7.43	0.0

**Teacher:** PaedDr. Beáta Dobay, PhD., PaedDr. Peter Židek, Péter Szabó, Mgr. Robin Pělucha, PhD.

**Date of last update:** 14.06.2016

**Approved by:** Guaranteeprof. Dr. Béla István Pukánszki, DSc.Guaranteedoc. RNDr. Róbert Gyepes, PhD.Guaranteeprof. Dr. Annamária Várkonyiné Kóczy, DSc.