University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/

Course name: Animal physiology

RFYZ2/06

Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: Per study period: 16s / 8s

Course method: present

Number of credits: 9

Recommended semester/trimester of the course: 4.

Course level: N

Prerequisities:

Conditions for course completion:

Learning outcomes:

To provide students with basic knowledge about physiological processes in organisms of animals and man

Brief outline of the course:

The physiology of blood and hemopoietic organs. Physiology of respiration. Heart and circulatory physiology. Physiology of the gastrointestinal tract. The functions of liver. Energetic metabolism and physiology of nutrition. Water and mineral household of the organism. Physiology of the endocrine secretion. Physiology of reproduction. Physiology of excretion. General neurophysiology. Functions of neurons and neuronal networks. Sensory and motoric functions of CNS. Associative functions of CNS. Functions of the vegetative nervous system. Physiology of muscle contraction and active motion. Work physiology. Sensory physiology

Recommended literature:

Ganong, W. F.: Review of medical physiology. Prentice-Hall, Appleton & Langer, 1993 Varder, A. J., Sherman, J. H., Luciano, D. S.: The mechanisms of body functions, McGraw-Hill, 1990

Schmidt, R. F., Thews, G.: Human Physiology, Springer-Verlag, 1989

R.W.Hill, R.Wyse, M.Anderson: Animal Physiology, Sinauer Assoc., 2008

Course language:

Notes:

Course assessment

Total number of assessed students: 28

| A | В | С | D | Е | FX |
|-------|-------|------|------|-------|-----|
| 39.29 | 28.57 | 3.57 | 7.14 | 21.43 | 0.0 |

Provides: prof. RNDr. Beňadik Šmajda, CSc.

Date of last modification: 13.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/

Course name: Biology and Biology Didactics

RUB/02

Course type, scope and the method:

Course type:

Recommended course-load (hours):

Per week: Per study period: Course method: present

Number of credits: 0

Recommended semester/trimester of the course:

Course level: N

Prerequisities: ÚBEV/RBO2/06 and ÚBEV/RZO/06 and ÚBEV/RFYR/06 and ÚBEV/RFYZ2/06 and ÚBEV/RGEN/02 and ÚBEV/RDIB2/06

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 13

| A | В | С | D | Е | FX |
|-------|-------|-------|------|-------|-------|
| 23.08 | 23.08 | 15.38 | 7.69 | 15.38 | 15.38 |

Provides:

Date of last modification: 13.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/

Course name: Botany I

RBO1/06

Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: Per study period: 8s / 4s

Course method: present

Number of credits: 6

Recommended semester/trimester of the course: 3.

Course level: N

Prerequisities:

Conditions for course completion:

Learning outcomes:

Introduction to lower plant biology.

Brief outline of the course:

Morphology, cytology, ecology, phylogenesis and taxonomy of lower plants. Cyanobacteria and algae (Cyanophyta, Prochlorophyta, Glaucophyta, Rhodophyta, Heterocontophyta, Haptophyta, Cryptophyta, Dinophyta, Euglenophyta, Chlorarachniophyta, Chlorophyta). Slime moulds (Plasmodiophoromycota, Dictyosteliomycota, Acrasiomycota, Labyrinthulomycota). Fungi (Oomycota, Hyphochytriomycota, Chytridiomycota, Zygomycota, Ascomycota, Basidiomycota). Lichens. Mosses.

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 29

| A | В | С | D | Е | FX |
|-------|-------|------|------|-----|-----|
| 82.76 | 10.34 | 3.45 | 3.45 | 0.0 | 0.0 |

Provides: prof. RNDr. Martin Bačkor, DrSc.

Date of last modification: 13.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Botany II **RBO2/06** Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 8s / 4s Course method: present **Number of credits:** 6 Recommended semester/trimester of the course: 3. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 29 C Е A В D FX 27.59 20.69 34.48 6.9 0.0 10.34 Provides: prof. RNDr. Pavol Mártonfi, PhD., prof. RNDr. Martin Bačkor, DrSc. Date of last modification: 13.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Comparative animal morphology RPMZ/06 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 12s / 6s Course method: present **Number of credits: 7 Recommended semester/trimester of the course:** 1. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 5 C Α В D Е FX 20.0 0.0 60.0 0.0 0.0 20.0 Provides: RNDr. Andrej Mock, PhD. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Cytology RCYT/06 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 20s / 4s Course method: present **Number of credits: 9 Recommended semester/trimester of the course:** 1. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 18 C A В D Е FX 27.78 0.0 16.67 11.11 44.44 0.0 Provides: RNDr. Rastislav Jendželovský, PhD. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Didactics of biology I. **RDIB1/02** Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 6s / 6s Course method: present Number of credits: 4 Recommended semester/trimester of the course: 3. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 18 C A В D Е FX 66.67 27.78 5.56 0.0 0.0 0.0 Provides: doc. RNDr. Katarína Kimáková, CSc. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Didactics of biology II. **RDIB2/06** Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 8s / 6s Course method: present **Number of credits: 7** Recommended semester/trimester of the course: 4. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 29 C A В D Е FX 37.93 27.59 27.59 0.0 3.45 3.45 Provides: doc. RNDr. Katarína Kimáková, CSc. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Environment protection RZP/06 Course type, scope and the method: Course type: Lecture **Recommended course-load (hours):** Per week: Per study period: 12s Course method: present **Number of credits: 5 Recommended semester/trimester of the course:** 5. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 19 \mathbf{C} A В D Е FX 100.0 0.0 0.0 0.0 0.0 0.0 Provides: RNDr. Ladislav Mošanský, CSc. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course nam

RET/06

Course name: Ethology

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: Per study period: 8s / 4s

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 3.

Course level: N

Prerequisities:

Conditions for course completion:

Learning outcomes:

To teach the students to know and to be aware of the importance of the behavioural aspect in biological sciences

Brief outline of the course:

History and development of ethology. Ethological methods. The innate forms of behaviour. The simplest forms of learning – conditioning and instrumental learning. Higher form of learning. Social behaviour. Sexual behaviour. Play behaviour. Biological rhythms. Orientation in space and animal migrations. Communication systems of animals. Emotions. Aggression in animal and human behaviour. Abnormal forms of behaviour

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 30

| A | В | С | D | Е | FX |
|-------|------|-----|-----|-----|-----|
| 96.67 | 3.33 | 0.0 | 0.0 | 0.0 | 0.0 |

Provides: prof. RNDr. Beňadik Šmajda, CSc.

Date of last modification: 13.02.2014

| University: P. J. Safá | rik University in Košice | | | | |
|-----------------------------|---|-------------------------------|--|--|--|
| Faculty: Faculty of S | cience | | | | |
| Course ID: ÚBEV/ RTC/06 | 2: ÚBEV/ Course name: Fieldworks from Biology | | | | |
| Course type, scope a | and the method: | | | | |
| Course type: Practi | ce | | | | |
| Recommended cou | | | | | |
| Per week: Per stud | v <u>-</u> | | | | |
| Course method: pre | esent | | | | |
| Number of credits: 5 | 5 | | | | |
| Recommended seme | ester/trimester of the cours | e: 4. | | | |
| Course level: N | | | | | |
| Prerequisities: | | | | | |
| Conditions for cours | se completion: | | | | |
| Learning outcomes: | | | | | |
| Brief outline of the c | course: | | | | |
| Recommended litera | nture: | | | | |
| Course language: | - | | | | |
| Notes: | | | | | |
| Course assessment | | | | | |
| Total number of asse | ssed students: 16 | | | | |
| | abs | n | | | |
| 100.0 0.0 | | | | | |
| Provides: prof. RND | r. Pavol Mártonfi, PhD., doc | . RNDr. Ľubomír Panigaj, CSc. | | | |
| Date of last modifica | ntion: 13.02.2014 | | | | |
| Approved: prof. RNI | Dr. Pavol Mártonfi, PhD. | | | | |

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: General Botany **RVB/06** Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 16s / 8s Course method: present **Number of credits: 9** Recommended semester/trimester of the course: 2. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 17 C A В D Е FX 47.06 17.65 5.88 17.65 11.76 0.0 Provides: Mgr. Vladislav Kolarčik, PhD. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: General Ecology RVE/06 Course type, scope and the method: Course type: Lecture **Recommended course-load (hours):** Per week: Per study period: 12s Course method: present **Number of credits: 4 Recommended semester/trimester of the course:** 1. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 19 C A В D Е FX 57.89 21.05 21.05 0.0 0.0 0.0 Provides: RNDr. Peter Ľuptáčik, PhD. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Genetics

RGEN/02

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours): Per week: Per study period: 20s / 4s

Course method: present

Number of credits: 9

Recommended semester/trimester of the course: 5.

Course level: N

Prerequisities:

Conditions for course completion:

oral examination

Learning outcomes:

To provide the students with knowledge of basic genetic principles of inheritance.

Brief outline of the course:

Mendel's principles of inheritance. Gene interactions. Sex-linked traits. Cytogenetics, mutations and mutagenesis. Structure and function of DNA, mRNA, tRNA and rRNA. Genetic code. Mechanism of replication, transcription and translation. Post-transcriptional and post-translational modifications. Regulation of gene expression. Genetic mechanisms at subcellular level. Genetics of bacteria. Cytogenetics and mutations. Basis of human genetics. Population genetics. Quantitative traits. Human genome project.

Recommended literature:

Darnell, J., Lodish, H., Baltimore, D.: Molecular Cell Biology. Scientific American, New York, 1992

Lewin, B.: Genes IV. Oxford University Press, Oxford, 1990

Loewy, A. G.,, Ciekewitz, P., Menninger, J. R., Gallant, J. A. N.: Cell Structure and Function.

Saunders College Publ., Philadelphia, 1991

Russell, P. J.: Genetics. Harper Collins Publ., New York, 1992

Van Dam-Mieras, M. C. a kol.: Genome Management in Eukaryotes. Butterworth-Heinemann Ltd., Oxford, 1993

Course language:

Notes:

Course assessment

Total number of assessed students: 48

| A | В | С | D | Е | FX |
|------|------|------|------|------|-----|
| 62.5 | 12.5 | 12.5 | 4.17 | 8.33 | 0.0 |

Provides: RNDr. Katarína Bruňáková, PhD.

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 $\textbf{Date of last modification:}\ 13.02.2014$

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚGE/

Course name: Geology and petrography

RGEP/06

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: Per study period: 16s / 4s

Course method: present

Number of credits: 6

Recommended semester/trimester of the course: 1.

Course level: N

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Courses have following objectives: firstly, to introduce the current theories of processes which occur in the Earth (global tectonics, species of magmatism), secondly, to describe the rock-forming minerals, taxology of intrusive rocks, taxology of sedimentary rocks and rocks which had overcame metamorphosis, basics of the regional geology of Slovakia, basics of the historical geology and paleontology.

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 86

| A | В | С | D | Е | FX |
|-------|-------|-------|-------|-------|-----|
| 22.09 | 23.26 | 15.12 | 23.26 | 16.28 | 0.0 |

Provides: Ing. Katarína Bónová, PhD.

Date of last modification: 11.02.2014

Approved: prof. RNDr. Pavol Mártonfi, PhD.

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University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Histology RHIS/06 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 8s / 4s Course method: present **Number of credits: 4 Recommended semester/trimester of the course:** 2. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 19 C A В D Е FX 36.84 5.26 10.53 26.32 21.05 0.0 Provides: doc. RNDr. Zuzana Daxnerová, CSc. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ **Course name:** Human anatomy RAC/06 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 8s / 4s Course method: present **Number of credits: 4 Recommended semester/trimester of the course:** 2. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 18 C A В D Е FX 22.22 50.0 11.11 11.11 0.0 5.56 Provides: doc. MVDr. Mária Miklošová, PhD. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Immunology **RIM/02** Course type, scope and the method: Course type: Lecture **Recommended course-load (hours):** Per week: Per study period: 12s Course method: present **Number of credits: 4 Recommended semester/trimester of the course:** 2. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 14 \mathbf{C} Α В D Е FX 57.14 42.86 0.0 0.0 0.0 0.0 Provides: RNDr. Vlasta Demečková, PhD. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Microbiology RMKB/06 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 8s / 4s Course method: present **Number of credits: 4 Recommended semester/trimester of the course:** 1. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 19 C A В D Е FX 73.68 5.26 10.53 5.26 0.0 5.26 Provides: doc. RNDr. Katarína Kropáčová, CSc. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Molecular biology RMB1/06 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 16s / 8s Course method: present **Number of credits: 9 Recommended semester/trimester of the course:** 2. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 18 \mathbf{C} A В D Е FX 16.67 22.22 0.0 16.67 44.44 0.0 Provides: doc. RNDr. Peter Solár, PhD. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Obhajoba záverečnej práce ROZP/12 Course type, scope and the method: **Course type:** Recommended course-load (hours): Per week: Per study period: Course method: present Number of credits: 0 **Recommended semester/trimester of the course:** Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 0 \mathbf{C} Α В D Е FX 0.0 0.0 0.0 0.0 0.0 0.0 **Provides:** Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Plant Physiology RFYR/06 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 16s / 8s Course method: present **Number of credits: 9** Recommended semester/trimester of the course: 4. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 27 C A В D Е FX 37.04 7.41 22.22 0.0 3.7 29.63 Provides: prof. RNDr. Miroslav Repčák, DrSc. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Teaching practice RPP1/02 Course type, scope and the method: Course type: Practice **Recommended course-load (hours):** Per week: Per study period: 20s Course method: present **Number of credits:** 6 **Recommended semester/trimester of the course:** 5. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 22 \mathbf{C} A В D Е FX 100.0 0.0 0.0 0.0 0.0 0.0 Provides: PhDr. Silvia Kontírová, PhD., Mgr. Mária Sarková, PhD., doc. RNDr. Katarína Kimáková, CSc.

Approved: prof. RNDr. Pavol Mártonfi, PhD.

Date of last modification: 13.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/

Course name: Záverečná práca

RSZP/00

Course type, scope and the method:

Course type:

Recommended course-load (hours):

Per week: Per study period: Course method: present

Number of credits: 10

Recommended semester/trimester of the course: 5.

Course level: N

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 27

| A | В | С | D | Е | FX |
|-------|-------|-------|-----|-----|-----|
| 59.26 | 22.22 | 18.52 | 0.0 | 0.0 | 0.0 |

Provides: prof. RNDr. Pavol Mártonfi, PhD., prof. RNDr. Martin Bačkor, DrSc., prof. RNDr. Igor Hudec, CSc., doc. RNDr. Katarína Kropáčová, CSc., doc. RNDr. Katarína Kimáková, CSc., doc. RNDr. Zuzana Daxnerová, CSc., doc. RNDr. Ľubomír Panigaj, CSc., doc. MVDr. Mária Miklošová, PhD., Ing. Anna Macková, CSc.

Date of last modification: 13.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Zoology **RZO/06** Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: Per study period: 16s / 8s Course method: present **Number of credits: 9 Recommended semester/trimester of the course:** 3. Course level: N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 27 C A В D Е FX 29.63 18.52 25.93 18.52 7.41 0.0 Provides: doc. RNDr. L'ubomír Panigaj, CSc. Date of last modification: 13.02.2014 Approved: prof. RNDr. Pavol Mártonfi, PhD.