# CONTENT

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/FYZ/04 | **Course name:** Animal and Human Physiology |
|---|---|

**Course type, scope and the method:**
**Course type:** Practice
**Recommended course-load (hours):**
**Per week: Per study period:** 15s
**Course method:** present

**Number of ECTS credits:** 6

**Recommended semester/trimester of the course:** 1.

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
oral examination

**Learning outcomes:**
To extend the knowledge from the basic subject of Animal physiology with respect to the topic of the dissertation.

**Brief outline of the course:**
1. Basic principles in Animal Physiology.
2. The goal and functioning of the integrating systems of the body. Control and regulating processes.
3. Homeostatic mechanisms for maintenance of the stability of the inner environment. The aim of physiological adaptations.
4. Transport processes in the human body.
5. Principles of the energetic metabolism. Anaerobic and aerobic processes in the metabolism of nutrients.
6. Adaptation to low and high environmental temperatures.
7. Control of movement - motoric bases of behaviour.
8. Mechanisms of salt and water housholding. Adaptations to dry environment.

**Recommended literature:**
Hill, Wyse, Anderson : Animal Physiology, Sinauer Assoc., 2008

**Course language:**
english

**Notes:**

**Course assessment**
Total number of assessed students: 72

| N | P |
|---|---|
| 0.0 | 100.0 |

**Provides:** prof. RNDr. Beňadik Šmajda, CSc.

**Date of last modification:** 25.03.2022

| **Approved:** |
| --- |

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/PVS/04 | **Course name:** Author's patents, discoveries, software |
|---|---|

**Course type, scope and the method:**
**Course type:**
**Recommended course-load (hours):**
**Per week: Per study period:**
**Course method:** present

**Number of ECTS credits:** 2

**Recommended semester/trimester of the course:**

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
Patent filed, invention, software product created.

**Learning outcomes:**
The PhD student demonstrates the ability to create an innovative product in a given scientific field, or with impact on an interdisciplinary scale or in technical practice.

**Brief outline of the course:**

**Recommended literature:**

**Course language:**

**Notes:**

**Course assessment**
Total number of assessed students: 1

| abs | n |
|---|---|
| 100.0 | 0.0 |

**Provides:**

**Date of last modification:** 08.11.2022

**Approved:**

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/ MET/04 | **Course name:** Cell Metabolism |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture / Practice
**Recommended course-load (hours):**
**Per week:** 2 **Per study period:** 28 / 0s
**Course method:** present

**Number of ECTS credits:** 5

**Recommended semester/trimester of the course:**

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
Oral examination

**Learning outcomes:**
Broadening of the basic knowledge of metabolic processes for homeostasis maintenance in animal and human organism

**Brief outline of the course:**
Carbohydrates – structure, biological significance of mono-, di-, polysaccharides and its derivatives, pathways of carbohydrate synthesis and degradation, glycaemia regulation, clinical aspects of carbohydrate metabolism. Lipids – categories, metabolism, lipogenesis, lipolysis, the metabolic roles of the liver and adipose tissue. Ketogenesis. Regulation of carbohydrate and lipid metabolism. Plasma lipoprotein metabolism, hyper- and hypolipoproteinemias. Cholesterol metabolism, biochemical and clinical aspects of atherogenesis and atherosclerosis. Arachidonic acid – biological significance, formation and functions of eicosanoids, clinical correlations. Reactive oxygen and nitrogen species, oxidative metabolism, antioxidative systems. Metabolic pathways of protein degradation and amino acid transformation, special products of amino acid metabolism. Nitrogen metabolism, urea biosynthesis. Metabolism of porphyrins, purines and pyrimidines. Water metabolism and its disturbances. Metabolism of solutes. Mechanisms of metabolic processes regulation.

**Recommended literature:**
1. Devlin T.M.: Textbook of Biochemistry with Clinical Correlations. Wiley-Liss 2006
2. Bhagavan N.V., Chung-Eun Ha: Essentials of Medical Biochemistry. Elsevier 2011
3. Newsholme E., Leech T.: Functional Biochemistry in Health and Disease. Wiley-Blackwell 2010

**Course language:**

**Notes:**

| **Course assessment**<br>Total number of assessed students: 40 | |
|---|---|
| N | P |
| 0.0 | 100.0 |
| **Provides:** doc. RNDr. Monika Kassayová, CSc. | |
| **Date of last modification:** 16.09.2021 | |
| **Approved:** | |

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/ CRO1/03 | **Course name:** Chronophysiology |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture / Practice
**Recommended course-load (hours):**
**Per week:** 2 / 1 **Per study period:** 28 / 14
**Course method:** present

**Number of ECTS credits:** 5

**Recommended semester/trimester of the course:**

**Course level:** II., III.

**Prerequisities:**

**Conditions for course completion:**
Active participation on practicals.
Passing of the final oral examination.

**Learning outcomes:**
To outline the problematics of the time organization of biological processes and their significance in evolution of living organisms.
To understand the mechanisms, ensuring the adaptation to regular changes in their environment with various periodicity, as well as of the common action of external and internal factors in control of the biological rhythms..

**Brief outline of the course:**
1. Time structure of the physiological variables in animals.
2. Overview of the history of chronobiology.
3. Basic notions and division of biological rhythms.
4. Genetic basis and molecular mechanisms of the biological rhythms in animals.
5. Endogenous character of the biological rhythms. Localization of the biological clock.
6. Synchronsation of rhythms. Multioscillatory system of the body.
7. Model animals in study of biological rhythms.
8. Ultradian rhythms.
9. Circaannual (seasonal) rhythms.
10. Application of chronobiological principles in medicine.
11. Disturbations of the biological rhythms. The jet-lag syndrome.
12. Biological rhythms in shift-work.
13. The significance of biological rhythms in the evolution of living organisms.

**Recommended literature:**

**Course language:**

**Notes:**

**Course assessment**
Total number of assessed students: 98

| A | B | C | D | E | FX | N | P |
|---|---|---|---|---|---|---|---|
| 21.43 | 20.41 | 27.55 | 11.22 | 4.08 | 0.0 | 0.0 | 15.31 |

**Provides:** prof. RNDr. Beňadik Šmajda, CSc., RNDr. Natália Pipová, PhD.

**Date of last modification:** 21.09.2021

**Approved:**

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ CM/04 | **Course name:** Citation in monograph |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 20 | |
| **Recommended semester/trimester of the course:** 2., 4., 6., 8. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 0 | |
| **Provides:** | |
| **Date of last modification:** | |
| **Approved:** | |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ CZC/04 | **Course name:** Citation in scientific journal published abroad |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 10 | |
| **Recommended semester/trimester of the course:** 2., 4., 6., 8. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 63 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ CDC/04 | **Course name:** Citation in scientific journal published in the country of residence |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 5 | |
| **Recommended semester/trimester of the course:** 2., 4., 6., 8. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 6 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ SCI/04 | **Course name:** Citation registered in Science Citation Index |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 20 | |
| **Recommended semester/trimester of the course:** 2., 4., 6., 8. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 84 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ SMPR/04 | **Course name:** Co-worker of project supported by international grant schemes |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 15 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |

**Course assessment**

Total number of assessed students: 43

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ SDPR/04 | **Course name:** Co-worker of project supported by national grant schemes |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 2 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |

**Course assessment**
Total number of assessed students: 486

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ PFYZ/15 | **Course name:** Comparative animal physiology |
| **Course type, scope and the method:**<br>**Course type:** Lecture<br>**Recommended course-load (hours):**<br>**Per week:** 2 **Per study period:** 28<br>**Course method:** present | |
| **Number of ECTS credits:** 3 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** II., III. | |
| **Prerequisities:** | |
| **Conditions for course completion:**<br>Working out the given themes of the report.<br>Passing the final oral examination. | |
| **Learning outcomes:**<br>The students receive an overview on the significance of physiological adaptational mechanisms to the various life conditions on the individual levels of the phylogenesis. | |
| **Brief outline of the course:**<br>1. Phylogeny of food acquisition, processing and utilization in animals.<br>2. Energy metabolism (factors influencing the metabolic rate; physiology of physical work; principles of aerobic performance in various species).<br>3. Thermal housekeeping (poikilothermic and homoiothermic strategies.<br>4. Life in cool environment).<br>5. The phylogenic development of the nervous system.<br>6. Sensory abilities of the animals.<br>7. Evolution of the brain. Endocrinal and neuroendocrinal regulation of body functions in evertebrates and vertebrates.<br>8. Reproductive systems of the animals.<br>9. Navigation in animals. Motoric basics of animal behaviour.<br>10. The mechanisms of the exchange of respiratory gases in a phylogenetic view.<br>11. Comparison of circulatory systems in animals.<br>12. Water- and mineral housekeeping in terrestrial and aquatic animals.<br>13. Excretory systems of the animals. | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |

**Course assessment**
Total number of assessed students: 23

| A | B | C | D | E | FX | N | P |
|---|---|---|---|---|---|---|---|
| 39.13 | 21.74 | 0.0 | 8.7 | 4.35 | 0.0 | 0.0 | 26.09 |

**Provides:** prof. RNDr. Beňadik Šmajda, CSc.

**Date of last modification:** 21.09.2021

**Approved:**

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/DK/04 | **Course name:** Conference in the country of residence |
|---|---|

**Course type, scope and the method:**
**Course type:**
**Recommended course-load (hours):**
**Per week: Per study period:**
**Course method:** present

**Number of ECTS credits:** 2

**Recommended semester/trimester of the course:**

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
Active participation in the home conference.

**Learning outcomes:**
By actively participating in the national scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence in using existing theories and concepts in an innovative way, as well as generating new original scientific knowledge and communicating research results to a wider audience using adequate means and through the Slovak language.

**Brief outline of the course:**

**Recommended literature:**

**Course language:**

**Notes:**

**Course assessment**
Total number of assessed students: 164

| abs | n |
|---|---|
| 100.0 | 0.0 |

**Provides:**

**Date of last modification:** 08.11.2022

**Approved:**

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ ODZP/14 | **Course name:** Defence of Doctoral Thesis |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 30 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 60 | |

| N | P |
|---|---|
| 0.0 | 100.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** 03.05.2015 |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/DZS/14 | **Course name:** Dissertation examination |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 20 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** ÚBEV/VEK3/11 | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 70 | |

| N | P |
|---|---|
| 0.0 | 100.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** 03.05.2015 |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ DZP1a/04 | **Course name:** Doctoral Thesis |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 10 | |
| **Recommended semester/trimester of the course:** 6. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 34 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ DZP1b/04 | **Course name:** Doctoral Thesis |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 30 | |
| **Recommended semester/trimester of the course:** 8. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 55 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/ EET1/03 | **Course name:** Ecological ethology |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture / Practice
**Recommended course-load (hours):**
**Per week:** 2 / 2 **Per study period:** 28 / 28
**Course method:** present

**Number of ECTS credits:** 6

**Recommended semester/trimester of the course:**

**Course level:** II., III.

**Prerequisities:**

**Conditions for course completion:**
Field excursion
Oral examination.

**Learning outcomes:**
To analyze and comprehend to priciples of behavioral strategies in a given ecosystem from the point of view of sociobiology

**Brief outline of the course:**
The topic of sociobiology and its relations to other disciplines. The evolution of social behavior in animals and in man. Strategies of social interactions and formation of groups in relation to the ecosystem. The choice of appropriate social arrangement, sexual partner, reproductional and parental strategy. Competition among indiviuals and sexes.

**Recommended literature:**

**Course language:**

**Notes:**

**Course assessment**
Total number of assessed students: 214

| A | B | C | D | E | FX | N | P |
|---|---|---|---|---|---|---|---|
| 87.38 | 3.74 | 5.14 | 0.47 | 0.0 | 0.0 | 0.0 | 3.27 |

**Provides:** RNDr. Igor Majláth, PhD.

**Date of last modification:** 16.05.2021

**Approved:**

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/ EKC1/00 | **Course name:** Ecology of mammals |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture / Practice
**Recommended course-load (hours):**
**Per week:** 1 / 1 **Per study period:** 14 / 14
**Course method:** present

**Number of ECTS credits:** 3

**Recommended semester/trimester of the course:**

**Course level:** II., III.

**Prerequisities:**

**Conditions for course completion:**

**Learning outcomes:**
To understand a) ekological position of mammal groups in ecosystems and their importance in ecological networks; b) anthropogenic impacts on mammals and their coenoses; c) population ecology of some mammal groups

**Brief outline of the course:**
1. Factors of environment. Temperature. Water. Snow. Light. Adaptations. Hypothermy. Hibernation, aestivation, letargy. 2. Reseources. Food. Food strategies and specialistaions. 3. Habitat and nika. Interactions. 4. Komensalism. Mutualism. Kooperation. Competion. Predator and prey. 5. Mammals and plants. Food webs. 6. Teritoriality. Home range. Lek. Metapopulations. 7. Reproduction. Mating systems. Oestrus. r- and K- strategy. Monogamy, polygamy. 8. Dispersion. Migration. Habitat selection. Individual. Population. Natality, mortality. Kohorts. Population dynamics and cycles. Gradations. 9. Mammal diversity. Island biogeografy. Macroecology. Gradients. Long-term studies. 10. Habitat fragmentations. Synanthropy. 11. Conservation of mammals. Wind energy. Mammal introductions. Repatriations, reintroductions. Expansions. 12. Global climate changes and mammals. Protected areas. 13. Vulneralble species. Minimal viable population.

**Recommended literature:**
Feldhamer G., Drickamer L., Vessey SH., Merritt JF., 2000. Mammalogy: Adaptation, Diversity and Ecology. McGraw Hill Hardback, 563 pp.
Vlasák P., 1986. Ekologie cicavcu. Academia, Praha, 292 pp.

**Course language:**

**Notes:**

**Course assessment**
Total number of assessed students: 261

| A | B | C | D | E | FX | N | P |
|---|---|---|---|---|---|---|---|
| 64.37 | 16.86 | 11.49 | 2.3 | 2.3 | 0.0 | 0.0 | 2.68 |

| |
|---|
| **Provides:** doc. RNDr. Marcel Uhrin, PhD. |
| **Date of last modification:** 20.09.2021 |
| **Approved:** |

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/END/04 | **Course name:** Endocrinology |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture / Practice
**Recommended course-load (hours):**
**Per week:** 1 **Per study period:** 14 / 0s
**Course method:** present

**Number of ECTS credits:** 3

**Recommended semester/trimester of the course:**

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
Oral examination. Application of knowledge from endocrinology to the solved problem of the doctoral student's thesis.

**Learning outcomes:**
To broaden the student´s knowledge of endocrine organ and tissue function at all levels of the animal and human organism

**Brief outline of the course:**
1. Chemical structure of hormones, general principles of hormone action.
2. Hormone biosynthesis, secretion, transport and degradation.
3. Hormone-receptor interaction, receptor types, transmission of hormonal signal into the cell.
4. Neuroendocrinology, hypothalamic-pituitary system.
5. Hormones of thyroid gland, regulation of thyroid secretion.
6. Parathyroid glands, hormonal regulation of calcium and phosphorus homeostasis.
7., 8. Hormones of adrenal glands – adrenal cortex and medulla.
9. Pancreatic islets, regulation of metabolic processes.
10. Hormones and regulatory peptides of gastrointestinal tract.
11. Neuroendocrine regulation of food intake and body mass, endocrine activity of adipose tissue.
12. Hormones of male and female reproduction, hormonal regulation of pregnancy and lactation.
13. Pineal gland. Principles of hormonal integration.

**Recommended literature:**
1. Goodman H.M.: Basic Medical Endocrinology. Academic Press 2009
2. Jameson J.L.: Harrison´s Endocrinology. McGraw-Hill Companies Inc., 2010
3. Gardner D.G., Shoback D.: Greenspan´s Basic and Clinical Endocrinology. McGraw-Hill Companies Inc., 2011

**Course language:**

**Notes:**

| **Course assessment**<br>Total number of assessed students: 15 | |
|---|---|
| N | P |
| 0.0 | 100.0 |
| **Provides:** doc. RNDr. Monika Kassayová, CSc. | |
| **Date of last modification:** 23.11.2021 | |
| **Approved:** | |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** CJP/ AJD1/07 | **Course name:** English Language for PhD Students 1 |

**Course type, scope and the method:**
**Course type:** Practice
**Recommended course-load (hours):**
**Per week:** 2 **Per study period:** 28
**Course method:** present

**Number of ECTS credits:** 2

**Recommended semester/trimester of the course:** 1.

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
Completion of e-course English for PhD Students (lms.upjs.sk), consultations (1-3).
Written assignments - Professional/Academic CV, Short Academic Biography.

**Learning outcomes:**
The development of students´ language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the language for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2.

**Brief outline of the course:**
Specific aspects of academic and professional English with focus on correct pronunciation, vocabulary development (noun and verb collocations, phrasal verbs, prepositional phrases, word-formation, formal/informal language, etc.), selected aspects of English grammar (prepositions, grammar tenses, passive voice, etc.), academic writing (professional/academic CV, Short Academic Biography).

**Recommended literature:**
Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017.
Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí – cvičebnica. Košice, Vydavateľstvo ŠafárikPress, 2021.
Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021.
McCarthy, M., O´Dell, F.: Academic Vocabulary in Use. CUP, 2008.
Štepánek, L., J. De Haff a kol.: Academic English-Akademická angličtina. Grada Publishing, a.s., 2011.
Armer, T.: Cambridge English for Scientists. CUP, 2011.
lms.upjs.sk

**Course language:**
English, level B2 according to CEFR

**Notes:**

**Course assessment**
Total number of assessed students: 738

| N | Ne | P | Pr | abs | neabs |
|---|---|---|---|---|---|
| 0.0 | 0.0 | 48.1 | 0.0 | 51.9 | 0.0 |

**Provides:** PhDr. Helena Petruňová, CSc., Mgr. Zuzana Kolaříková, PhD.

**Date of last modification:** 16.09.2022

**Approved:**

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** CJP/ AJD2/07 | **Course name:** English Language for PhD Students 2 |
| **Course type, scope and the method:**<br>**Course type:** Practice<br>**Recommended course-load (hours):**<br>**Per week:** 2 **Per study period:** 28<br>**Course method:** present | |
| **Number of ECTS credits:** 3 | |
| **Recommended semester/trimester of the course:** 2. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:**<br>Test, oral exam in accordance with the exam requirements (https://www.upjs.sk/filozoficka-fakulta/cjp/doktorandi-upjs/) | |
| **Learning outcomes:**<br>The development of students´ language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the language for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2. | |
| **Brief outline of the course:**<br>Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development (formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. | |
| **Recommended literature:**<br>Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017.<br>Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021.<br>Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021.<br>McCarthy, M., O´Dell, F.: Academic Vocabulary in Use. CUP, 2008.<br>Štepánek, L., J. De Haff a kol.: Academic English-Akademická angličtina. Grada Publishing, a.s., 2011.<br>Armer, T.: Cambridge English for Scientists. CUP, 2011. | |
| **Course language:**<br>B2 level according to CEFR | |
| **Notes:** | |

**Course assessment**
Total number of assessed students: 729

| N | Ne | P | Pr | abs | neabs |
|---|---|---|---|---|---|
| 0.27 | 0.0 | 93.83 | 1.1 | 4.8 | 0.0 |

**Provides:** PhDr. Helena Petruňová, CSc., Mgr. Zuzana Kolaříková, PhD.

**Date of last modification:** 10.03.2022

**Approved:**

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/ EFYZ/04 | **Course name:** Environmental physiology |
|---|---|

**Course type, scope and the method:**
**Course type:** Practice
**Recommended course-load (hours):**
**Per week: Per study period:** 15s
**Course method:** present

**Number of ECTS credits:** 4

**Recommended semester/trimester of the course:**

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
oral exam

**Learning outcomes:**
The aim of this subject is to explain the influence of environmental factors and mechanisms of adaptations in animals and humans.

**Brief outline of the course:**
1. Definition and classification of adaptations.
2. Regulation of energy homeostasis.
3. Molecular basis of food intake regulation.
4. Energy deficit, factors influencing survival in fasting.
5. Increased energy intake and its consequences.
6. High temperature tolerance, limits of survival.
7. Adaptations to low temperature.
8. Survival in hypobaric environment.
9. Hyperbaria and its effects.
10. Effects of hypergravity and microgravity.
11. Electromagnetic radiation, the significance and effects on living organisms.
12. Xenobiotics and their metabolism.
13. The effects of environmental xenobiotics on organisms.

**Recommended literature:**
Piantadosi C.A.: The Biology of Human Survival. Oxford University Press, 2003
Ashcroft F.: Life at the Extremes. University of California Press, 2000
Kamler K.: Surviving the Extremes. Penguin Books, 2004

**Course language:**

**Notes:**

| **Course assessment**<br>Total number of assessed students: 7 | |
|---|---|
| N | P |
| 0.0 | 100.0 |
| **Provides:** | |
| **Date of last modification:** 14.07.2022 | |
| **Approved:** | |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ETO/04 | **Course name:** Etológia |
| **Course type, scope and the method:**<br>**Course type:** Practice<br>**Recommended course-load (hours):**<br>**Per week: Per study period:** 15s<br>**Course method:** present | |
| **Number of ECTS credits:** 4 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |

**Course assessment**
Total number of assessed students: 20

| N | P |
|---|---|
| 0.0 | 100.0 |

| | |
|---|---|
| **Provides:** RNDr. Igor Majláth, PhD. | |
| **Date of last modification:** 16.05.2021 | |
| **Approved:** | |

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/ EXON/04 | **Course name:** Experimental oncology |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture
**Recommended course-load (hours):**
**Per week:** 15 **Per study period:** 210
**Course method:** present

**Number of ECTS credits:** 5

**Recommended semester/trimester of the course:**

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
oral exam

**Learning outcomes:**
To clarify the general mechanisms and principles of neoplastic transformation and possibilities of its modulation in experimental animals.

**Brief outline of the course:**
1. Carcinogenesis, molecular basis of carcinogenesis.
2. Oncogens, tumour supressor genes.
3. Cell cycle regulation.
4. Types of cell death.
5. Tumour microenvironment.
6. Cancer cell metabolism.
7. Tumour classification.
8. Classification of carcinogens.
9. In vitro and in vivo models of carcinogenesis.
10. Possibilities of cancer prevention, risk factors.
11. Mechanisms of cancer chemoprevention.
12. Natural and synthetic chemopreventive substances.
13. Clinical chemoprevention trials.

**Recommended literature:**
Scientific journal articles.
Weinberg R.A, The biology of cancer. Garland Science, Taylor and Francis Group, LLC, 2007.

**Course language:**

**Notes:**

| **Course assessment**<br>Total number of assessed students: 16 | |
|---|---|
| N | P |
| 0.0 | 100.0 |
| **Provides:** doc. RNDr. Bianka Bojková, PhD. | |
| **Date of last modification:** 14.07.2022 | |
| **Approved:** | |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ IMU/04 | **Course name:** Immunology |
| **Course type, scope and the method:**<br>**Course type:** Practice<br>**Recommended course-load (hours):**<br>**Per week: Per study period:** 20s<br>**Course method:** present | |
| **Number of ECTS credits:** 5 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |

**Course assessment**
Total number of assessed students: 40

| N | P |
|---|---|
| 0.0 | 100.0 |

| | |
|---|---|
| **Provides:** RNDr. Vlasta Demečková, PhD. | |
| **Date of last modification:** 23.11.2021 | |
| **Approved:** | |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ NEM/04 | **Course name:** Implementation of new experimental methodology |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 15 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 98 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| | |
|---|---|
| **Provides:** | |
| **Date of last modification:** | |
| **Approved:** | |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ MK/04 | **Course name:** International Conference |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 6 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 239 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ DKZU/04 | **Course name:** International conference taking place in the country of residence |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 4 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 123 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ ZNC/04 | **Course name:** Journals not registered in the Current Contents Connect database and published abroad |

**Course type, scope and the method:**
**Course type:**
**Recommended course-load (hours):**
**Per week: Per study period:**
**Course method:** present

**Number of ECTS credits:** 5

**Recommended semester/trimester of the course:**

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**

**Learning outcomes:**

**Brief outline of the course:**

**Recommended literature:**

**Course language:**

**Notes:**

**Course assessment**
Total number of assessed students: 65

| abs | n |
|---|---|
| 100.0 | 0.0 |

**Provides:**

**Date of last modification:**

**Approved:**

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ DNC/04 | **Course name:** Journals not registered in the Current Contents Connect database and published in the country of residence |

**Course type, scope and the method:**
**Course type:**
**Recommended course-load (hours):**
**Per week: Per study period:**
**Course method:** present

**Number of ECTS credits:** 5

**Recommended semester/trimester of the course:** 2., 4., 6., 8.

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**

**Learning outcomes:**

**Brief outline of the course:**

**Recommended literature:**

**Course language:**

**Notes:**

**Course assessment**
Total number of assessed students: 52

| abs | n |
|---|---|
| 100.0 | 0.0 |

**Provides:**

**Date of last modification:**

**Approved:**

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ZKC/04 | **Course name:** Journals registered in the Current Contents Connect database and published abroad |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 20 | |
| **Recommended semester/trimester of the course:** 2., 4., 6., 8. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |

**Course assessment**

Total number of assessed students: 289

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ DKC/04 | **Course name:** Journals registered in the Current Contents Connect database and published in the country of residence |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 15 | |
| **Recommended semester/trimester of the course:** 2., 4., 6., 8. | |
| **Course level:** III. | |
| **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

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ NEU/04 | **Course name:** Neuronal basis of behavior. |
| **Course type, scope and the method:**<br>**Course type:** Lecture<br>**Recommended course-load (hours):**<br>**Per week: Per study period:** 15s<br>**Course method:** present | |
| **Number of ECTS credits:** 6 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:**<br>Oral examination. | |
| **Learning outcomes:**<br>This subject is aimed to provide knowledge on the correlation between processes in | |
| **Brief outline of the course:**<br>1. Neuronal mechanisms of learning and memory.<br>2. Neurochemistry of emotions.<br>3.The role of the left and right hemispheres in control of various types of behaviour.<br>4. Neurodegenerative processes in the CNS.<br>5. Biological basis of patological deviations of behaviour in humans.<br>6. Neurophysiology of addiction.<br>7. Neuronal control of eating behaviour.<br>8. Neurobiology of sleep.<br>9. Neuaral control of sexual behaviour.<br>10. Control of circadian rhythms by CNS.<br>11. Brains centers of speach and its disorders.<br>12. Biological origin of mental disorders.<br>13. Genetic bases of behaviour. | |
| **Recommended literature:**<br>A.Wickens: Foundations of Biopsychology. Pearson/Prentice Hall, Harlow,London,...,2005.<br>T.J.Carew: Behavioral Neurobiology. Sinauer Assoc.,Sunderland (USA), 2000.<br>R.P.Kesner, J.L.Martinez: Neurobiology of learning and memory. Academic Press,Elsevier, Amsterdam,....,2007. | |
| **Course language:** | |
| **Notes:** | |

| **Course assessment**<br>Total number of assessed students: 18 | |
|---|---|
| N | P |
| 0.0 | 100.0 |
| **Provides:** prof. RNDr. Beňadik Šmajda, CSc. | |
| **Date of last modification:** 21.10.2021 | |
| **Approved:** | |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ NZ/04 | **Course name:** Non-reviewed collections of papers and monographs published abroad or in the country of residence |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 2 | |
| **Recommended semester/trimester of the course:** 2., 4., 6., 8. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |

**Course assessment**

Total number of assessed students: 133

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/ PAR1/03 | **Course name:** Parasitology I. |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture / Practice
**Recommended course-load (hours):**
**Per week:** 2 / 2 **Per study period:** 28 / 28
**Course method:** present

**Number of ECTS credits:** 6

**Recommended semester/trimester of the course:**

**Course level:** I., II., III.

**Prerequisities:** ÚBEV/ZOM/04 or ÚBEV/ZO1/03 or ÚBEV/ZO1/04

**Conditions for course completion:**
active participation in practical exercises
presentation of seminar work
continuous written examinations
oral examination

**Learning outcomes:**
Upon completion of this Parasitology I., students will demonstrate:
-an understanding of the fundamental terms and principles of parasitism
-an ability to outline the general life cycles of the major parasites of medical and veterinary importance
-an understanding of the ecology of parasites, and of the importance of parasites in the ecosystem
-an understanding of the methods of control
-an ability to determine species of human and animal parasites

**Brief outline of the course:**
The subject classifies epidemiologically and epizootologically important parasites. Basic parasitological concepts are discussed like adaptations, evolution, parasite-host interactions, systematic overview of parasitic animals, their ecology and epidemiology, natural focus and transimissive parasitoses.
Syllabus:
1 week: Fascinating world of parasites
2 week: General parasitology, basic epidemiological terms
3 week: Evolution of parasites
4 week: Forms of transmission
5 week: Unicelluar parasites: Excavata - Trypanosomatida, Diplomonadida
6 week: Unicelluar parasites: Excavata - Trichomonadida; Amebozoa
7 week: Unicelluar parasites: Chromalveolata - Apicomplexa
8 week: Helminths: Trematoda, Monogenea
9 week: Helminths: Cestoda
10 week: Helminths: Nematoda, Acanthocephala
11 week: Arachnoentomology: Crustacea, Pentastomida, Chelicerata

12 week: Arachnoentomology: Insecta
13 week: Arachnoentomology: Insecta - Diptera

**Recommended literature:**
1. Roberts, Janovy Jr. Nadler,Foundations of Parasitology, 9th edition, 2012 McGraw-Hill Education, 701pp.
2. Loker, Parasitology: A Conceptual Approach, 2015, Garland Science, 560 pp.

**Course language:**
slavak, english

**Notes:**

**Course assessment**
Total number of assessed students: 475

| A | B | C | D | E | FX | N | P |
|---|---|---|---|---|---|---|---|
| 52.42 | 19.58 | 12.21 | 10.95 | 3.16 | 0.63 | 0.0 | 1.05 |

**Provides:** RNDr. Viktória Majláthová, PhD., RNDr. Igor Majláth, PhD., RNDr. Mikuláš Oros, PhD.

**Date of last modification:** 17.09.2021

**Approved:**

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/ PAR2/03 | **Course name:** Parasitology II |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture / Practice
**Recommended course-load (hours):**
**Per week:** 1 / 1 **Per study period:** 14 / 14
**Course method:** present

**Number of ECTS credits:** 3

**Recommended semester/trimester of the course:**

**Course level:** II., III.

**Prerequisities:**

**Conditions for course completion:**
active participation in practical exercises
presentation of seminar work
continuous written examinations
oral examination

**Learning outcomes:**
After completing the course Parasitology II. students will demonstrate
- knowledge of diagnostic methods commonly used in parasitology
- practical use of methods commonly used in parasitology
- evaluate the method of detection and identification on the basis of knowledge of parasite life cycles

**Brief outline of the course:**
The course builds on the knowledge acquired in the Parasitology I. course, expands them and includes vectors transmitted organisms. It focuses on mastering the methods used in parasitology.
Syllabus:
Week 1: Parasitic adaptations
Week 2: Parasite-host interactions
Week 3: Behavioral strategies of parasites
Week 4: Effect of the parasite on host behavior
Week 5: Vector-borne viruses
Week 6: Vector-borne bacteria
Week 7: Vector-borne parasites
Week 8: Laboratory diagnostic methods
Week 9: Flotation and serological methods
Week 10: Molecular detection and identification
Week 11: Methods of capturing vertebrates for parasitological purposes
Week 12: Methods of capturing invertebrates for parasitological purposes
Week 13: Parasitological autopsy

**Recommended literature:**
1. Roberts, Janovy Jr. Nadler,Foundations of Parasitology, 9th edition, 2012 McGraw-Hill Education, 701pp.

2. Loker, Parasitology: A Conceptual Approach, 2015, Garland Science, 560 pp.

**Course language:**
slovak, english

**Notes:**

**Course assessment**
Total number of assessed students: 73

| A | B | C | D | E | FX | N | P |
|---|---|---|---|---|---|---|---|
| 75.34 | 8.22 | 5.48 | 1.37 | 1.37 | 1.37 | 0.0 | 6.85 |

**Provides:** RNDr. Viktória Majláthová, PhD., RNDr. Mikuláš Oros, PhD.

**Date of last modification:** 17.09.2021

**Approved:**

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** KPE/ PgVU/17 | **Course name:** Pedagogy for University Teachers |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture
**Recommended course-load (hours):**
**Per week: Per study period:** 28s
**Course method:** present

**Number of ECTS credits:** 5

**Recommended semester/trimester of the course:**

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
1. Development of a teaching diary—100%
2. Compulsory active participation and attendance in accordance with the Study Regulations.

**Learning outcomes:**
Students will be able to:
Apply didactic principles, methods, forms, and tools in the teaching of a specialised subject. Specify the educational procedures of a university teacher in subject teaching, pedagogical diagnostics, evaluation of learning outcomes, and self-reflection. Present rationalisation and streamlining possibilities in the teaching of specialised subjects. Apply educational competencies of university teachers taking into account the peculiarities of educating university students.

**Brief outline of the course:**
The personality of a university teacher. Teaching styles. Student in university education. Student learning styles. Possibilities of adapting teaching styles and student learning styles. University teacher–student interaction and communication in the teaching process. Pedagogical competencies of a university teacher. Didactic analysis of the curriculum; teaching materials and textbooks. Forms of university teaching. Methods of university teaching. Verification methods and student assessment. Creation of a didactic test. Designing university teaching process. University teacher self-reflection.

**Recommended literature:**
Čapek, R. (2015). Moderní didaktika. Lexikon výukových a hodnoticích metod. Praha, Grada Publishing, a.s.
Danek, J. (2014). Pedagogická komunikácia na vysokej škole. Trnava, Univerzita sv.Cyrila a Metoda v Trnave.
Dargová, J. (2001). Tvorivé kompetencie učiteľa. Prešov, Privat Press.
Dvořáček, J. (2014). Základy pedagogiky. Praha, Oeconomica.
Hupková, M., Petlák, E. (2004). Sebareflexia a kompetencie v práci učiteľa. Bratislava, IRIS.
Kyriacou, CH. (1996). Klíčové dovednosti učitele. Praha, Portál.
Mertin, V. a kol. (2012). Metody a postupy poznávaní žáka: pedagogická diagnostika. Praha, Wolters Kluwer.
Petty,G. (2013). Moderní vyučování. Praha, Portál.

Prucha, J. (2013). Moderní pedagogika. Praha, Portál.
Sirotová, M. (2014). Vysokoškolský učiteľ v edukačnom procese. Trnava, Univerzita sv.Cyrila a Metoda v Trnave.
Slávik, M. a kol. (2012). Vysokoškolská pedagogika. Praha, Grada.
Šebeň Zaťková, T. (2014). Úvod do vysokoškolskej pedagogiky. Trnava, Univerzita sv.Cyrila a Metoda v Trnave.
Turek, I. (2014). Didaktika. Bratislava, Wolters Kluwer, s.r.o.
Zormanová, L. (2014). Obecná didaktika. Praha, Grada.

**Course language:**
slovak

**Notes:**

**Course assessment**
Total number of assessed students: 78

| abs | n | neabs |
|---|---|---|
| 98.72 | 0.0 | 1.28 |

**Provides:** doc. PaedDr. Renáta Orosová, PhD.

**Date of last modification:** 07.09.2022

**Approved:**

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ RZ/04 | **Course name:** Peer-reviewed collections of papers and monographs published abroad or in in the country of residence |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 5 | |
| **Recommended semester/trimester of the course:** 2., 4., 6., 8. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |

**Course assessment**

Total number of assessed students: 333

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** KPPaPZ/PsVU/17 | **Course name:** Psychology for University Lecturers |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture
**Recommended course-load (hours):**
**Per week: Per study period:** 28s
**Course method:** present

**Number of ECTS credits:** 5

**Recommended semester/trimester of the course:**

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
Case study, micro-output, its analysis
Current modifications of the course are listed in the electronic bulletin board of the course.

**Learning outcomes:**
After completing the course, students can:
and Understand, summarize and explain selected psychological knowledge from cognitive psychology, emotion and motivation psychology, personality psychology, developmental, social, educational psychology and health psychology.
b) apply the above psychological knowledge necessary for the professional, competent performance of university teaching practice of doctoral students
c) to create and implement the teaching of a professional topic with applied psychological knowledge
d) evaluate their performance and the performance of their classmates, provide feedback

**Brief outline of the course:**
The content of the course is based on selected psychological knowledge of cognitive psychology, psychology of emotions and motivation, personality psychology, developmental, social, educational psychology and health psychology. Teaching is realized by a combination of lectures with interactive, experiential methods, discussion, open communication with mutual respect, support of independence, activity and motivation of students. Syllabus: University teacher and his work in the teaching process with a focus on: teachers in relation to themselves (cognitive, personal, social and competencies in the use of methods), in relation to students and as part of the teacher-student relationship on the basis of selected areas of cognitive psychology, psychology of emotions and motivation, developmental psychology, social psychology, educational psychology and health psychology with application to the university environment

**Recommended literature:**
Alexitch, L. R. (2005). Applying social psychology to education. Social Psychology.–Ed.: Schneider F., Gruman J., Coutts L.–Sage Publications, Inc, 205-228.
Fry, H., Ketteridge, S., & Marshall, S. (2008). A handbook for teaching and learning in higher education: Enhancing academic practice. Routledge.
Mareš, J.: Pedagogická psychologie. Portál, 2013.

Kniha psychologie. Universum, 2014
Čáp, J., Mareš, J.: Psychologie pro učitele. Praha: Portál 2007.
Vágnerová, M.: Školní poradenská psychológie pro pedagogy. Praha: Karolínum 2005.

**Course language:**
slovak

**Notes:**

**Course assessment**
Total number of assessed students: 70

| abs | n | neabs |
|---|---|---|
| 100.0 | 0.0 | 0.0 |

**Provides:** PhDr. Anna Janovská, PhD.

**Date of last modification:** 24.06.2022

**Approved:**

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ ZSP/04 | **Course name:** Realisation of study/research stay abroad |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 2 | |
| **Recommended semester/trimester of the course:** 6., 8. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 109 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ IG/04 | **Course name:** Receiving a grant under Internal Scientific Grant System (VVGS) |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 10 | |
| **Recommended semester/trimester of the course:** 6., 8. | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 169 | |
| abs | n |
| 100.0 | 0.0 |
| **Provides:** | |
| **Date of last modification:** | |
| **Approved:** | |

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** ÚBEV/ VKH1/03 | **Course name:** Selected topics in herpetology |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture / Practice
**Recommended course-load (hours):**
**Per week:** 2 / 1 **Per study period:** 28 / 14
**Course method:** present

**Number of ECTS credits:** 4

**Recommended semester/trimester of the course:**

**Course level:** II., III.

**Prerequisities:**

**Conditions for course completion:**
Field excursion
Oral examination.

**Learning outcomes:**
To broaden the knowledge of students on evolution, taxonomy, morphology, ecology and ecology of reptiles aquired before in the subject Zoology.

**Brief outline of the course:**
Systematical overview of amphibia and reptilia with a classification on species level. Phylogenetical development of amphibia and reptilia. Charcteristics of morphological and ecophysiological adaptations. Adaptaions on the significant abiotic and biotic factors (food, tepmerature,substrate, humidity, etc.). Selected aspects of population dynamics of some groups. Behavioral manifestations of amphibia and reptilia from a comparative aspect.

**Recommended literature:**
1. BARUŠ V. a kol.: Reptiles-Reptilia (Fauna of the ČSFR),Prague, 1992 (in Czech)
2. BARUŠ V. a kol.: Amphibia (Fauna of the ČSFR). Prague,1992. (in Czech)
3. OLIVA O., HRABĚ S., LÁC J. : Vertebrates of Slovakia I. Bratislava, 1968 (in Slovak
4. ROČEK Z.: Studies in Herpetology. Praha, 1986.
5. ZWACH I. : Our species of amphibia and reptilia on the photograph. Prague,1990.
6. DIESENER G., REICHHOLF J.: Amphibia and reptilia. Bratislava,1997

**Course language:**

**Notes:**

**Course assessment**
Total number of assessed students: 161

| A | B | C | D | E | FX | N | P |
|---|---|---|---|---|---|---|---|
| 89.44 | 4.35 | 2.48 | 0.0 | 0.0 | 0.0 | 0.0 | 3.73 |

**Provides:** RNDr. Igor Majláth, PhD.

**Date of last modification:** 16.05.2021

| **Approved:** |
| --- |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ SSOL/04 | **Course name:** Self-motivated Study on Scientific Literature |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 2 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 279 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |

## COURSE INFORMATION LETTER

**University:** P. J. Šafárik University in Košice

**Faculty:** Faculty of Science

| **Course ID:** Dek. PF UPJŠ/JSD/14 | **Course name:** Spring School for PhD Students |
|---|---|

**Course type, scope and the method:**
**Course type:** Lecture
**Recommended course-load (hours):**
**Per week: Per study period:** 4d
**Course method:** present

**Number of ECTS credits:** 2

**Recommended semester/trimester of the course:**

**Course level:** III.

**Prerequisities:**

**Conditions for course completion:**
Active participation in the Spring School of PhD students of UPJŠ.

**Learning outcomes:**
By actively participating in the Spring School of PhD Students of UPJŠ, the PhD student demonstrates a high level of ability to process the issues of his dissertation for a multidisciplinary audience with an emphasis on clarifying the motivation, scientific problem, processing methodology and own contribution to the solution of the selected topic. The PhD student demonstrates the ability to professionally discuss various research topics, present his own positions and accept a plurality of opinions. Demonstrates the ability to communicate research results to a wider professional audience with adequate means and through the Slovak language.

**Brief outline of the course:**
1. Interdisciplinary lectures from the fields of medicine, natural sciences, law, public affairs, humanities. Lecturers - top foreign or national experts from the mentioned fields.
2. Scientific lectures in sections created within related disciplines. Lecturers - top experts from UPJŠ from the mentioned fields.
3. Scientific contributions of PhD students in sections of related fields.
4. Panel discussions on the issue of PhD studies and current trends in the development of scientific disciplines at UPJŠ.

**Recommended literature:**
Proceedings of the Spring School of Doctoral Students.

**Course language:**

**Notes:**

**Course assessment**
Total number of assessed students: 187

| abs | n |
|---|---|
| 100.0 | 0.0 |

**Provides:** doc. RNDr. Marián Kireš, PhD.

| |
|---|
| **Date of last modification:** 08.11.2022 |
| **Approved:** |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ VYS/04 | **Course name:** Talk given at scholar seminars of department or institute |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 2 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 285 | |

| abs | n |
|---|---|
| 100.0 | 0.0 |

| | |
|---|---|
| **Provides:** | |
| **Date of last modification:** | |
| **Approved:** | |

## COURSE INFORMATION LETTER

| | |
|---|---|
| **University:** P. J. Šafárik University in Košice | |
| **Faculty:** Faculty of Science | |
| **Course ID:** ÚBEV/ PDS/18 | **Course name:** Writing Dissertation Work |
| **Course type, scope and the method:**<br>**Course type:**<br>**Recommended course-load (hours):**<br>**Per week: Per study period:**<br>**Course method:** present | |
| **Number of ECTS credits:** 0 | |
| **Recommended semester/trimester of the course:** | |
| **Course level:** III. | |
| **Prerequisities:** | |
| **Conditions for course completion:** | |
| **Learning outcomes:** | |
| **Brief outline of the course:** | |
| **Recommended literature:** | |
| **Course language:** | |
| **Notes:** | |
| **Course assessment**<br>Total number of assessed students: 11 | |

| N | P |
|---|---|
| 0.0 | 100.0 |

| |
|---|
| **Provides:** |
| **Date of last modification:** |
| **Approved:** |