

COURSE UNIT DESCRIPTION - HUMAN AND ANIMAL PHYSIOLOGY

Course unit title	Code
HUMAN AND ANIMAL PHYSIOLOGY	

Lecturer(s)	Department(s)
Coordinator: Prof. Osvaldas RUKŠĖNAS Other(s): Dr. Ramunė Grikšienė, Laura Mačiukaitė	Vilnius University, Department of Neurobiology and Biophysics, M.K. Čiurlionio g. 21/27, Vilnius, LT-03101

Cycle	Level of the course unit	Type of the course unit
Full-time studies (1 st stage)	1 out of 1	Compulsory

Mode of delivery	Period of delivered	Language(s) of instruction
Face to face	3 th semester, autumn	Lithuanian

Requirements for students	
Prerequisites: Courses in zoology, human anatomy, general chemistry, biochemistry are recommended.	Corequisities (if any): None

Number of credits allocated to the course unit	Student's total workload	Contact hours	Self-study and research hours
7	187	96	91

Purpose of the course unit (module): programme competences to be developed		
The course unit aims to develop: <i>Subject-specific competences:</i> • in-depth knowledge on principles and mechanisms of human and animal physiological systems; • practical laboratory skills in basic physiology; • ability to apply obtained knowledge for independent scientific study. <i>General competences:</i> • analytical and critical thinking • skills for self-development, learning skills in order to study general science resources; • ability to organize and plan their work and time.		
Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
Upon the successful completion of this course, students: • Describe the general anatomical and physiological principles at molecular and cellular level of the nervous, endocrine, sensory, muscular, cardiovascular, respiratory, digestive, urinary, reproductive systems; • Demonstrate practical laboratory skills in basic physiology and some simple laboratory techniques; • Develop skills to work in the laboratory as a member of a small team.	Combined teaching and learning methods: lectures, laboratory works; self-study.	Four written colloquiums (multiple choice questionnaire (MSQ) tests, 1 hour duration) during the term; defence of practicals; written exam.

Content: breakdown of the topics	Contact hours	Self-study work: time and assignments
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	Lectures	Tutorials	Seminars	Exercises	Laboratory work	Internship/work	Contact hours	Self-study hours	Assignments
1. Introduction to Human and animal physiology	2						2	4	Self-study: Transport through the cell wall, cell to cell communication
2. Transport through the cell wall, cell to cell communication	4						4	6	Self-study: Structure and functions of central nervous system
3. Structure and functions of central nervous system	6				6		12	9	Self-study: Vegetative nervous system
4. Vegetative nervous system	4				2		6	6	Self-study: Endocrine system
5. Endocrine system	4						4	12	Self-study: Sensory systems
6. Sensory systems	12				8		20	8	Self-study: Muscular system
7. Muscular system	4						4	8	Self-study: Cardiovascular system
8. Cardiovascular system	4				6		10	4	Self-study: Blood system
9. Blood system	2				6		8	9	Self-study: Respiratory system
10. Respiratory system	6				2		8	9	Self-study: Gastrointestinal system
11. Gastrointestinal system	6				2		8	6	Self-study: Urinary system
12. Urinary system	4						4	10	Self-study: Reproductive system
13. Reproductive system	6						6		
Total	64				32		96	91	

Assessment strategy	Weight, %	Assessment period	Assessment criteria
Four colloquiums	80	During the term	Accumulative score based on the four compulsory colloquiums. If final score is less than five, student has to pass written examination – three open type questions. If final score is equal or more than five, but student is not satisfied, he or she can take written exam. 10 (excellent) - excellent, exceptional knowledge and abilities, 91-100 percentile of the intended learning outcome; 9 (very good) - very good knowledge and abilities, 81-90 percentile of the intended learning outcome; 8 (good) - knowledge and abilities are above average, 71-80 percentile of the intended learning outcome; 7 (average) - average knowledge and abilities; there are few not essential mistakes, 61-70 percentile of the intended learning outcome; 6 (satisfactory) - knowledge and abilities are below average, there are mistakes, 56-60 percentile of the intended learning outcome; 5 (weak) - knowledge and abilities meet the minimum requirements, 51-55 percentile of the intended learning outcome; 4,3,2,1 (insufficient) - the minimum requirements are not met, 0-50 percentile of the

			intended learning outcome.
Laboratory work	20	During the term	Defence of practicals
Total	100		

Author	Year of publication	Title	Issue of a periodical or volume of a publication	Publishing place and house or web link
Compulsary reading				
Abraitis R., Cibas P., Gronow G.	2007	Human physiology (in Lithuanian)	478 p.	Kaunas
Berne, Robert M., et al. ed.	2004	Physiology	5 th ed.	Mosby
Guyton A. C., Hall J. E., W. B.	2011	Textbook of Medical Physiology	1091p	Saunders Company
U. Silverthorn	2010	Human Physiology	867 p.	Pearson
G.J.Tortora, B. Derrickson	2006	Principles of anatomy and physiology	11 th Edition	John Wiley and Sons
Optional reading				
L. Sherwood	2007	Human Physiology	6th Edition	Thomson
W.F. Boron, E.L. Boulpaep	2003	Medical physiology	1319 p.	Saunders
R.W. Hill, G.A. Wyse, M. Anderson	2004	Animal physiology	770 p.	Sinauer