



COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
Human Biology	

Academic staff	Core academic unit(s)
Coordinating: Rimantas Jankauskas, prof., PhD Other: Andrej Suchomlinov, assoc. prof., PhD	Department of Anatomy, Histology and Anthropology, Institute of Biomedical Sciences, Faculty of Medicine, Vilnius University, M.K. Čiurlionio str. 21, Vilnius

Study cycle	Type of the course unit
Integrated studies (I and II cycles)	Compulsory

Mode of delivery	Semester or period when it is delivered	Language of instruction
Lectures; seminars; self-study	Semester I (autumn)	English

Requisites	
Prerequisites: General knowledge of biology gained with secondary education	Co-requisites (if relevant): none

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
3	96	38	58

Purpose of the course unit		
The objective of the course is to consolidate the general knowledge of biology by studying the main object of the study program - the human being as a special biological and social phenomenon.		
Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
The student will conduct oneself honestly and adhere to ethical commitments. Will be able to think critically and self-critically, will be creative, proactive will strive to achieve ones objectives, will be able to communicate and work in a team.	Problem-oriented lecturing and demonstrations, active learning methods (group discussions), analytical methods (information search and analysis)	Continuous evaluation during the semester; exam - test (open and closed type tasks/questions)
Students will be able to evaluate the limits of their competences and if needed seek assistance. Will be able to solve problems and make decisions. Collaborate with specialists and scientists from other areas and disciplines.	Active learning methods (group discussions)	Continuous evaluation during seminars and practicals; exam
With the use of the knowledge of general biology the student will be able to critically assess the information about a human being and the natural world around him and will be able to suggest adequate solutions to problems.	Problem-oriented lecturing and demonstrations, active learning methods (group discussions, collaboration based teamwork), analytical methods (information search and analysis)	Continuous evaluation during the semester; exam- test (open and closed type tasks/questions)
The student will be able to independently gain knowledge about the human being and its biotic and social environment. Will be able to find, evaluate and	Problem-oriented lecturing and demonstrations, active learning methods (group discussions), analytical methods (information search and analysis)	Continuous evaluation during the semester; exam- test (open and closed type tasks/questions)

systematize information about a chosen organism.		
The student will be able to demonstrate the knowledge about the peculiarities of human biology (phylogenesis, ontogenesis, human biological diversity and its causes). Will understand the effect of biological evolution factors to human health and disease.	Problem-oriented lecturing and demonstrations, active learning methods (group discussions), analytical methods (information search and analysis)	Continuous evaluation during the semester; Preparation and presentation of a group project based on literature analysis; exam- test (open and closed type tasks/questions)

Content	Contact hours							Individual work: time and assignments	
	Lectures	Tutorials	Seminars	Workshops	Laboratory work	Internship	Contact hours, total	Individual work	Tasks for individual work
1. Human biology and anthropology. Principles of scientific research in natural sciences. Specific methods in anthropology. Genetic balance within human populations and the factors that affect it. The characteristics of primate groups, their morphological, physiological and behavioural adaptations. The key stages of anthropogenesis: primates of the tertiary period; Pliocene hominids; Biological characteristics of Homo erectus and Acheul culture; forms of archaic humans, Neanderthals and Moustier culture. The hypothesis of the origins of modern human. The ecological and demographic characteristics as well as health and disease during the hunter-gatherer, early agriculture, early urbanization and industrial periods.	10						10	10	Independent analysis of indicated literature and preparation for the exam
2. Developmental biology (ontogenesis). The peculiarities of the human postnatal ontogenesis (physical, intellectual and social development). The peculiarities of physical and psychomotor development in neonatal period and childhood: the principles of sexual maturation; morphological, physiological and social aspects of ageing. Factors affecting ontogenesis. Human ageing and lifespan. Evolutionary factors in human ontogenesis.	8						8	10	Independent analysis of indicated literature and preparation for the exam
3. Anthropometric measurements and proportions of the modern human beings. Body composition and constitution. The principles of human adaptation and acclimatization. Ecological gradients. The global diversity of human quantitative and discrete traits. The interpretations of the biological diversity of the modern human being (typological and evolutionary approaches). The effects of evolutionary factors on human diversity.	4						4	6	Independent analysis of indicated literature and preparation for the exam

4. Principles of evolutionary medicine. The understanding of human diseases from the evolutionary perspective (reproduction, nutrition and metabolism, defence mechanisms and behaviour).	8		8				16	32	Independent analysis of indicated literature, preparation and presentation of a group project based on literature analysis; and preparation for the exam
Total	30		8				38	58	

Assessment strategy	Weight %	Deadline	Assessment criteria
Human biology seminars: presentation of the group project	30%	During the semester	<p>Presentations delivered during seminars: in advance prepared presentation of the group project, based on the analysis of the scientific literature. The quality of the content, the presentation of scientific ideas, the validity of the conclusions, the quality of the scientific sources used, the structure and clarity of the report, the questions and answers of the audience are evaluated by the 4-point system:</p> <p>4: Perfect presentation of the group project: clear scientific ideas, smooth structure of the presentation, detailed analysis, systematic information, number and quality of scientific literature sufficient for credible analysis and conclusions, effective management of the audience.</p> <p>3: Very good presentation of the group project: clear scientific ideas, clear presentation structure, conclusions are well presented, but information lacks generalization and structuring.</p> <p>2: Good presentation of the group project: mostly clear scientific ideas, the presentation includes all required components, but the information lacks generalization and structuring, conclusions are not completely substantiated, minor errors are encountered, not all aspects of discussion are clear to the audience.</p> <p>1: Sufficient preparation and presentation of the group project: scientific ideas revealed incompletely, vague structure of the presentation, incomplete analysis, conclusions lack validity and generalizations, insufficient scientific literature, sources of dubious scientific value dominate, insufficient interest of the audience.</p>
Examination	70%	During session	<p>Students will be allowed to take the exam only in case the human biology seminars were attended.</p> <p>Exam consists of 40 short tasks/questions from the whole course of Human biology (open and closed type). Each response equals to 0.25 point.</p> <p>The final mark is attributed as follows:</p> <p>10: Excellent knowledge and abilities. Level of evaluation and synthesis of the facts and outcomes. 36-40 correct answers.</p> <p>9: Very good knowledge and abilities, minor mistakes might occur. Level of facts evaluation. 32-35 correct answers.</p> <p>8: Good knowledge and abilities, with minor mistakes. Level of facts synthesis. 28-31 correct answers.</p> <p>7: Average knowledge and abilities, various mistakes occur. Level of facts analysis. 24-27 correct answers.</p> <p>6: Below average knowledge and abilities with major mistakes. Level of knowledge application. 20-23 correct answers.</p> <p>5: Satisfactory (minimum) knowledge and abilities. Many</p>

			mistakes. Level of facts understanding. 16-19 correct answers. 0-4: Knowledge and abilities are below satisfactory level (unsatisfactory). 0-15 correct answers. Not passed.
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Author (-s)	Publishing year	Title	Issue of a periodical or volume of a publication	Publishing house or web link
Required reading				
Pollard TM.	2008	Western Diseases: an Evolutionary Perspective.		Cambridge University Press, https://www.cambridge.org/core/books/western-diseases/2DB8074F99CE69BE8964EA85129B2FEB
Shook B., Nelson K., Aguilera K., Braff L. (eds)	2023	Explorations: an Open Invitation to Biological Anthropology		https://explorations.americananthro.org/
Gluckman P., Beedle A., Hanson M.	2009-2012	Principles of evolutionary medicine.		Oxford University Press, https://ebookcentral.proquest.com/lib/viluniv/ebooks/detail.action?docID=472090
Recommended reading				
Jurmain R., Kilgore L., Trevathan V.	2008	Essentials of Physical Anthropology	7th ed.	Wadsworth Publishing
Stinson S., Bogin B., O'Rourke D.H. (ed.)	2012	Human biology: an evolutionary and biocultural perspective.	2nd ed.	https://ebookcentral.proquest.com/lib/viluniv/ebooks/reader.action?docID=693178