



COURSE UNIT(MODULE) DESCRIPTION

Course unit (module) title	Code
BEHAVIORAL GENETICS	

Lecturer(s)	Department(s) where the course unit (module) is delivered
Coordinator: dr. K. Noreikienė (lectures, seminars, tutorials, 64h)	Institute of Biosciences, Life Sciences Centre, Vilnius University, Saulėtekio al. 7, LT-10257 Vilnius

Study cycle	Type of the course unit (module)
Second	Elective

Mode of delivery	Period when the course unit (module) is delivered	Language(s) of instruction
Lectures, seminars, exercises, individual and group work	2 nd semester (spring)	Lithuanian (English if international students are enrolled)

Requirements for students	
Prerequisites: Basic genetics	Additional requirements (if any):

Course (module) volume in credits	Total student's workload	Contact hours	Self-study hours
5	133	64 Lectures – 14 Seminars – 30 Tutorials – 20	69

Purpose of the course unit (module): programme competences to be developed		
In-depth knowledge influence of genetic processes on animal and human behavior		
Ability to apply knowledge in independent scientific study		
Learning outcomes of the course unit (module)	Teaching and learning methods	Assessment methods
Upon the successful completion of this course, students will acquire: <ul style="list-style-type: none"> • knowledge on current achievements in research of human and animal behavior using genetic methods; • ability to define main concepts and problems of behavioral genetics; • understanding of ethical challenges in research of behavior genetics and their possible solutions; • scientific communication skills; 	Combined teaching and learning methods: lectures, seminars and tutorials; problem based learning; investigative method (information search and filing, report arrangement and presentation) individually and small groups, self-study	Group presentation; individual presentation (journal club); written research proposal, essay, written exam

Content: breakdown of the topics	Contact hours						Self-study work: time and assignments		
	Lectures	Tutorials	Seminars	Exercises	Laboratory work	Internship/work placement	Contact hours	Self-study hours	Assignments
1. Genetics and behavioral traits	4						4		Self study of e-materials
2. Methods of behavioral genetics								4	Self study of e-materials
3. Behavior and evolution	2		2				4	3	Self study of research papers
4. Genetics of complex quantitative behavioral traits	2		2				4	3	Self study of research papers
5. Genetics of social behavior	2		2				4	3	Self study of research papers
6. Behavior and epigenetics	2		2				4	3	Self study of research papers
7. Behavioral genetics and ethics	2		2				4	3	Self study of scientific papers and reports
8. Journal club			12				12	14	Self study of research papers, preparation for journal club presentation
9. Practical work on heritability estimations		2					2	6	Self study of e-materials
10. Elected work		4	4			10	18	10	Self study of e-materials, planning research and writing report
11. Preparation of research applications and their presentations		4	4				8	10	Writing research proposal
12. Preparation for the exam								10	
Iš viso	14	10	30			10	64	69	

Assessment strategy	Weight, %	Deadline	Assessment criteria
1. Oral and written analysis of research paper (journal club)	20	During the term	10 (excellent) - excellent, exceptional knowledge and abilities; 9 (very good) - very good knowledge and abilities; 8 (good) - knowledge and abilities are above average; 7 (average) - average knowledge and abilities; there are few not essential mistakes; 6 (satisfactory) - knowledge and abilities are below average, there are mistakes; 5 (weak) - knowledge and abilities meet the minimum requirements. 1 point penalty if presentation was made not in time. Zero points if presentation was not made and written analysis was not submitted.
2. Written work analysing selected theme (group work)	10	During the term	For group work, all group members are given the same evaluation. 10 (excellent) - excellent, exceptional knowledge and abilities; 9 (very good) - very good knowledge and abilities; 8 (good) - knowledge and abilities are above average; 7 (average) - average knowledge and abilities; there are few not essential mistakes; 6 (satisfactory) - knowledge and abilities are below average, there are mistakes; 5 (weak) - knowledge and abilities meet the minimum requirements. 1 point penalty if report was submitted not in time. Zero points if written report was not submitted.
3. Oral presentation of the prepared	10	During the term	For group work, all group members are given the same evaluation. 10 (excellent) - excellent, exceptional knowledge and abilities; 9 (very good) -

written work (group work)			very good knowledge and abilities; 8 (good) - knowledge and abilities are above average; 7 (average) - average knowledge and abilities; there are few not essential mistakes; 6 (satisfactory) - knowledge and abilities are below average, there are mistakes; 5 (weak) - knowledge and abilities meet the minimum requirements. 1 point penalty if oral presentation was done not in time. Zero points if oral presentation was not done at all.
4. Written research application (individual work)	10	During the term	10 (excellent) - excellent, exceptional knowledge and abilities; 9 (very good) - very good knowledge and abilities; 8 (good) - knowledge and abilities are above average; 7 (average) - average knowledge and abilities; there are few not essential mistakes; 6 (satisfactory) - knowledge and abilities are below average, there are mistakes; 5 (weak) - knowledge and abilities meet the minimum requirements. 1 point penalty if application was submitted not in time. Zero points if application was not submitted
5. Evaluation of research applications (individual work)	10	During the term	10 (excellent) - excellent, exceptional knowledge and abilities; 9 (very good) - very good knowledge and abilities; 8 (good) - knowledge and abilities are above average; 7 (average) - average knowledge and abilities; there are few not essential mistakes; 6 (satisfactory) - knowledge and abilities are below average, there are mistakes; 5 (weak) - knowledge and abilities meet the minimum requirements. 1 point penalty if evaluation was not submitted in time. Zero points if evaluation was not made at all.
6. Written exam	40	During exam session	Quiz (test and short-answer questions)
Total	100		Accumulative score. For group presentations, all group members are given the same evaluation. 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. 5 additional points could be added due to activity during the seminars.

Author	Year of publication	Title	Issue of a periodical or volume of a publication	Publishing place and house or web link
Compulsory reading				
Juozas Lazutka	2008	Elgsenos genetika		Kaunas, Technologija
Optional reading				
Jonathan C. Gewirtz, Yong-Kyu Kim (eds.)	2016	Animal Models of BehaviorGenetics		Springer Science+Business Media New York
John F. Cryan, Andreas Reif (Eds)	2012	Behavioral Neurogenetics		Springer-Verlag Berlin Heidelberg
Yong-Kyu Kim (Editor)	2009	Handbook of BehaviorGenetics		Springer Science+Business Media
Nuffield Council on Bioethics	2002	Genetics and Behavior. Genetics and Human Behavior: the Ethical Context		http://nuffieldbioethics.org/wp-content/uploads/2014/07/Genetics-and-human-behaviour.pdf