



COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
Psychophysiology	

Lecturer(s)	Department(s) where the course unit (module) is delivered
Coordinator: Assoc. prof. Ramune Griksiene	Vilnius university, Life sciences center, Department of Neurobiology and Biophysics
Other(s):	

Study cycle	Type of the course unit (module)
Full-time studies (2 nd stage)	Compulsory

Mode of delivery	Period when the course unit (module) is delivered	Language(s) of instruction
Lectures, seminars	I semester	Lithuanian/English

Requirements for students	
Prerequisites: none	Additional requirements (if any):

Course (module) volume in credits	Total student's workload	Contact hours	Self-study hours
5	133	80	53

Purpose of the course unit (module): programme competences to be developed		
Ability to understand what non-invasive methods can be used for studying processes in human nervous system.		
Learning outcomes of the course unit (module)	Teaching and learning methods	Assessment methods
Will be able to describe psychophysiological science, psychophysiological methods and objects of psychophysiological research.	Lectures, seminars	Exam, group and individual presentations.
Will be able to evaluate which method/methods can be used for the specific question/problem.	Lectures, seminars, laboratory works, course project	Exam, group and individual presentations.
Will be able to organize psychophysiological study independently: choose methods, plan and perform experiments, analyse, interpret and present data.	Lectures, seminars, laboratory works, course project	Exam, group and individual presentations.

Content: breakdown of the topics	Contact hours							Self-study work: time and assignments	
	Lectures	Tutorials	Seminars	Exercises	Laboratory works	Practice	Internship/work	Self-study hours	Assignments
1. <ul style="list-style-type: none"> • <i>Lecture:</i> Introduction to the course: structure, assessment, literature. • <i>Seminar:</i> Introduction to the course project. Test. 	2		1				3	1	

2.	<ul style="list-style-type: none"> • <i>Lecture: Introduction to Psychophysiological Science.</i> • <i>LabWork: E-prime: introduction, creation and testing of experiment.</i> 	2				2		6	3	
3.	<ul style="list-style-type: none"> • <i>Lecture: CNS I. EEG.</i> • <i>Seminar: Group presentations. Project: the main idea, possible methods etc.</i> • <i>LabWork: ERP experiment/ recording.</i> 	2		2		2		4	3	
4.	<ul style="list-style-type: none"> • <i>Lecture: CNS II. EEG/ERP</i> • <i>Seminar: Individual presentations</i> • <i>LabWork: EEG/ERP analysis.</i> 	2		1		2		5	3	
5.	<ul style="list-style-type: none"> • <i>Lecture: CNS III. MRI/fMRI/fNIRS</i> • <i>Seminar: Individual presentations</i> • <i>LabWork: EEG/ERP analysis, interpretation.</i> 	2		2		2		6	3	
6.	<ul style="list-style-type: none"> • <i>Lecture: CNS IV. Non-Invasive brain stimulation in psychophysiology.</i> • <i>Seminar: Individual presentations</i> • <i>LabWork: HRV, Blood pressure.</i> 	2		2		2		6	3	
7.	<ul style="list-style-type: none"> • <i>Lecture: PNS I. Cardiovascular system.</i> • <i>Seminar: Individual presentations</i> • <i>LabWork: EDA recording</i> 	2		2		2		6	3	
8.	<ul style="list-style-type: none"> • <i>Lecture: PNS II. Electrodermal activity.</i> • <i>Seminar: Individual presentations</i> • <i>LabWork: EMG recording.</i> 	2		1		2		5	3	
9.	<ul style="list-style-type: none"> • <i>Lecture: PNS III. Somatic system.</i> • <i>Seminar: Group presentations. Project: detailed plan of the study (methods, subjects, outcomes, analysis methods etc.).</i> • <i>LabWork: Recording of respiratory parameters. Eye movements.</i> 	2		2		2		6	3	
10.	<ul style="list-style-type: none"> • <i>Lecture: PNS IV: Gastrointestinal system. Respiratory system. Visual system.</i> • <i>Practice: Work with project.</i> 	2				2		4	2	
11.	<ul style="list-style-type: none"> • <i>Lecture: Hormones in psychophysiology. Stress.</i> • <i>Seminar: Discussion</i> • <i>Practice: Work with project.</i> 	2		2		2		6	2	
12.		2				2		4	4	

<ul style="list-style-type: none"> Lecture: Emotions. Sexual response Practice: Work with project. 									
13. <ul style="list-style-type: none"> Lecture: The Interoceptive system Practice: Work with project. 	2					2	4	4	
14. <ul style="list-style-type: none"> Lecture: Detection of deception. Practice: Work with project. 	2					3	5	4	
15. <ul style="list-style-type: none"> Lecture: Sleep psychophysiology. Practice: Work with project. 	2					3	5	4	
16. <ul style="list-style-type: none"> Lecture: Applied psychophysiology and Biofeedback. Neuromarketing. Seminar and Practice: Group presentations: Project presentation. 	2		1			2	5	8	
Total	32		16		16	16	80	53	

Assessment strategy	Weight,%	Deadline	Assessment criteria
Exam	60	Session	Evaluation (max. 6 points): computerized test.
Practical work: lab works and practice, i. e. course project (group work).	40	Semester	<p>Laboratory works are not mandatory, as some methods may have been learned by some students during previous (bachelor) studies. During these works, students acquire practical skills while using different psychophysiological techniques and prepare for a course project. At the end of each work, the procedure and results are discussed. No points for that.</p> <p>Evaluation of the course project (max 4 points):</p> <ul style="list-style-type: none"> Group presentations (3 presentations) Individual presentation Manuscript/paper or poster <p>Each part is assessed by each student and by the teacher (50 % of the grade comes from student's assessment, and 50 % - from the teacher).</p>

Author	Year of publication	Title	Issue of a periodical or volume of a publication	Publishing place and house or web link
Compulsory reading				
Optional reading				
Cacioppo, J. T., L. G. Tassinary, and G. G. Berntson.	2017/2007	Handbook of psychophysiology		Cambridge University Press, Cambridge
Andreassi, J. L. L.	2007	Psychophysiology human behavior and physiological response		Erlbaum, Publishers, Mahwah, N.J.
S. J. Luck.	2005/2014	An Introduction to the Event-Related Potential Technique.		The MIT Press
		Journals: Psychophysiology,		

		International Journal of Psychophysiology etc.		
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