



COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
Noninvasive electrophysiological assessment of auditory/visual functioning in humans: EEG and ERP studies	

Lecturer(s)	Department(s) where the course unit (module) is delivered
Coordinator: Dr. Inga Griskova-Bulanova Other(s):	Life Science Centre

Study cycle	Type of the course unit (module)

Mode of delivery	Period when the course unit (module) is delivered	Language(s) of instruction
Face to face	Autumn/Spring	English

Requirements for students	
Prerequisites: Basic knowledge of brain structure/functions and psychology	Additional requirements (if any):

Course (module) volume in credits	Total student's workload	Contact hours	Self-study hours
5	134	64	70

Purpose of the course unit (module): programme competences to be developed		
Basic knowledge on electroencephalogram and event-related potentials methods; practical skills on EEG/ERP registration and primary evaluation; comprehension of the scientific literature in the field		
Learning outcomes of the course unit (module)	Teaching and learning methods	Assessment methods
To learn the application of noninvasive electrophysiological methods – electroencephalogram and event-related potentials- for assessment of auditory/visual functioning in humans The knowledge on electrical processes in the brain The basic knowledge on the recording technique The basic knowledge on the analyses methods	Lectures, demonstrations, laboratory work Literature review and analysis	Presentation
To be able to plan and perform experiment using EEG and present the data	Demonstration, practical work	Report on practical work

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. Basics of electroencephalography	2							5	Book reading
2. Basics of evoked and event-related potentials	2							5	Book reading
3. Hands-on		10		6	10			5	Preparation for practical work
4. EEG/ERP study designs			4					15	Papers reading, writing the course paper
5. EEG/ERP literature analysis		10		10				15	Papers reading, writing the course paper
6. Course paper			5					20	Papers reading, report writing, preparing presentation
7. Presentation			5					5	
Total	4	20	14	16	10			64	70

Assessment strategy	Weight, %	Deadline	Assessment criteria
Participation in seminars	15	First half of the semester	Discussion abilities assessed by lecturer
Practical training	15	First half of the semester	Has to be completed
Report	70	Till the end of semester	Quality of written report and oral presentation assessed by lecturer

Author	Year of publication	Title	Issue of a periodical or volume of a publication	Publishing place and house or web link
Compulsory reading				
Todd C. Handy.	2004	Event-Related Potentials: A Methods Handbook.		MIT Press
Optional reading				
Multiple	2000-2017	Clinical Neurophysiology		Elsevier
Multiple	2000-2017	Frontiers in Psychology, Frontiers in Neurosciences		Frontiers