**SYLLABUS**

|  |  |  |  |
| --- | --- | --- | --- |
| COURSE TITLE | | Elements of brain neuroimaging for teachers | |
| CREDITS | | 2 ECTS | |
| LANGUAGE OF INSTRUCTION | | English | |
| DEPARTMENT/FACULTY | | Faculty of Pedagogy/ Neuroeducation Research Lab | |
| LECTURER(S) | | Dr Margaret Chojak | |
| COURSE OBJECTIVES | | | |
| Students who successfully complete this course will have a basic knowledge of and insight into:  The student is able to apply in practice:  (a) basic information, regarding the analysis of EEG recordings (e.g., see an epileptic seizure, recognize waves indicative of brain injury),  (b) conclusions from EEG or NIRS studies to individualize teaching,  (c) strategies for recognizing false neuromyths (programs, teaching aids that falsely refer to neuroscience).  The student recognizes problems related to learning disabilities resulting from brain injury;  The student becomes familiar with:  (a) basic knowledge about the structure of the brain and its functioning (in the process of reading or making mathematical calculations),  (b) basic knowledge of brain damage or brain disorders that are the cause of autism spectrum, ADHD, or depression in children,  (c) methods of imaging brain function,  The student gains awareness of the existence of neuromyths and learns to refute them in debates. | | | |
| PREREQUISITES | none | | |
| COURSE ORGANISATION –LEARNING FORMAT AND NUMBER OF HOURS | | | |
| 15 hours of workshops:  10 hours: online own studying lessons and materials  5 hours: offline workshops in Neuroeducation Research Lab | | | |
| COURSE DESCRIPTION | | | |
| The subject is devoted to the topic of brain imaging using various methods and techniques, and the possibility of using the results obtained in education. Students will receive basic knowledge, given in simple language, about the structure of the brain and its functioning during educational activities. They will also be able to see and experience how the study of children's electrical brain function looks like, how to recognize, for example, an epileptic seizure. Students will also be able to experience on themselves the examination of the brain using NIRS - a device that allows to localize brain injuries very precisely. Knowledge and practice will be supplemented with practical tips for the teacher on how to use brain science, which has been gaining great popularity recently. | | | |
| METHODS OF INSTRUCTION | | | Lecture, discussion, didactic film, reading assignments, demonstrations, case studies etc |
| REQUIREMENTS AND ASSESSMENTS | | | \* Attendance and active participation in classes  \* Two tests (case study) during the term covering the texts and workshops (multiple choice; true- false statements; gapped sentences)  \* One short presentation |
| GRADING SYSTEM | | | Success in this course depends on attending class regularly, actively participating in class, and taking thorough notes.  **Tests:** There will be two extra mini tests during each term. Students will be informed about them at least 2 weeks in advance. They will be based on a recommended reading.  **Short presentation:** Presentation of a practical task (to be performed, for example, in the classroom) in English on one of 3 topics of choice. The following will be evaluated: timeliness of handing in, compliance with the topic, citation of literature. |
| TOTAL STUDENT WORKLOAD NEEDED TO ACHIEVE EXPECTED LEARNING OUTCOMES EXPRESSED IN TIME AND ECTS CREDIT POINTS | | | |  |  | | --- | --- | | **Activity** | **Hours:** | | Lecture | 10 | | Workshops | 15 | | Preparation for classes (Reading, homework etc.) | 25 | | Preparing a presentation | 10 | | Revising for the exam | 0 | | Exam | 0 | | Total | 60 | | ECTS | 2 | |
| STUDY MATERIALS | | | **PRIMARY OR REQUIRED BOOKS/READINGS:**  2 article for each subject – it will be in materials for student  **SUPPLEMENTAL OR OPTIONAL BOOKS/READINGS:** |