

COURSE UNIT

Experimental Neuropsychology Rotation - Major

HEAD LECTURER

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ACADEMIC STAFF

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LEARNING OUTCOMES

The central objective of this unit is to provide students with research skills in various research methodologies in experimental neuropsychology in the context of the laboratory units in which they are inserted (eg, neuroimaging, neurophysiology, neuromodulation, neurobiochemistry, psychophysics, psychometry). The student joins an ongoing research project so that s/he can: develop knowledge in a research topic; monitor the various phases of planning, implementation, analysis and presentation of results; to understand the ethical implications of research in experimental neuropsychology.

SYLLABUS

1. Training of data acquisition in experimental neuropsychology (programming of experiments, data collection in one or more of the methodologies used in the rotational laboratory unit - e.g., neuroimaging, neurophysiology, neuromodulation, neurobiochemistry, psychophysics, psychometry).
2. Participation in data collection of ongoing research projects (recruitment of participants, conduct of ethical procedures, data acquisition and storage).
3. Participation in data analysis (pre-processing and post-processing of data, statistical analysis).
4. Training in scientific presentations (oral presentation of study results in Journal Club format, presentation of results in poster format, collaboration in writing a manuscript for publication).

TEACHING METHODS

1. Individualized tailor-made acquisition of technical skills of data collection and analysis;
2. Supervised participation in ongoing research projects;
3. Participation in laboratory meetings;
4. Presentations of results in laboratory meetings.

ASSESSMENT METHODS

1. Ongoing assessment of experimental skills acquisition by the assigned resident experiment coordinator (50%);
2. Research report (25%);
3. Assessment by lab peers regarding participation in lab meetings (5%);
4. Ongoing assessment by course coordinator (10%);
5. Ongoing assessment of individual study by lab coordinator (10%).

BIBLIOGRAPHY

To be individually assigned by each lab coordinator (individual study), experiment coordinator (research), and course coordinator (presentation on experimental neuropsychology ideas).