

- Faculté des lettres et sciences humaines
- [www.unine.ch/lettres](http://www.unine.ch/lettres)

## Approaches to cognitive science (2LN2211)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
<b>Master en sciences cognitives</b>	<b>Cours: 4 ph</b>	<b>cont. continu</b>	<b>6</b>

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

### Période d'enseignement:

- Semestre Automne

### Equipe enseignante:

The course is taught by Dr Jennifer McClung, Dr Teres Fagundes, and Dr Albert Ros. External experts will be brought in as well to illustrate various methods and techniques.

### Objectifs:

Students will learn a range of basic methods involved in carrying out research in the cognitive sciences. The overall aim of the course is to teach students how to independently design, implement, and analyse their own research. Specifically, students will be able to design an experiment by establishing a testable hypothesis according to their postulate, to predict which type of data they will collect to test their hypothesis, and to use the correct statistical tests to analyse their data.

### Contenu:

Observational methods and experimental design and analysis will be taught alongside practical methods. Research practicals will alternate with data management sessions.

Research practicals will focus on the following methods:

- Experimental design
- Observational methods
- Questionnaire design
- Ethogram design using Pendragon software
- Acoustic analysis using Prat software
- Eye-tracking
- Gestural coding
- Archaeological methods to study human evolution

Data management sessions will focus on the following methods using R and SPSS:

- Data exploration
- Non-parametric tests
- Parametric tests
- Data reduction and ordination

### Forme de l'évaluation:

The course will be assessed by a mid-term essay and a final exam. Students will also give an oral presentation of one of their practical projects at the end of term. The final mark will consist of the average of the essay and the final exam, with the oral presentation being marked pass-fail.

### Documentation:

The bibliography and weekly presentations are available on claroline.

### Pré-requis:

The course is reserved for students who are admitted to the Cognitive Science Master's programme. Other interested students should contact the course organisers.

### Forme de l'enseignement:

The course will be taught with a combination of lecture and practical sessions. Students will be working both out in the field to gather data as well as in the laboratory to analyse their data.

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