

Analysis of Repeated Measures (H001997)

Course size (nominal values; actual values may depend on programme)

Credits 6.0 Study time 180 h Contact hrs 40.0 h

Course offerings and teaching methods in academic year 2017-2018

A (semester 1)	English	seminar: practical PC	10.0 h
		room classes	
		lecture	30.0 h

Lecturers in academic year 2017-2018

Rosseel, Yves	PP01	lecturer-in-charge
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Offered in the following programmes in 2017-2018

	crdts	offering
Master of Science in Psychology (main subject Theoretical and Experimental Psychology)	6	A

Teaching languages

English

Keywords

data analysis

Position of the course

This course contributes to the following competence areas:

- Independently select adequate methods, designs and techniques for research in cognitive psychology, experimental psychology or neurosciences.
- Interpret and correctly report the results of own research in cognitive psychology, experimental psychology or neurosciences in a scholarly report, thesis or article.
- To act systematically with scientific integrity while conducting psychological research or practice.

Contents

In this course, the following topics are discussed:

- review univariate linear model
- multivariate tests
- the multivariate linear model
- MANOVA, MANCOVA, multivariate regression
- analysis of repeated measures: classical univariate (ANOVA) approach
- analysis of repeated measures: multivariate approach
- analysis of repeated measures: modern univariate (mixed models) approach
- structural equation models and growth curve models
- the use of R for data manipulation and visualisation

Initial competences

Research Methods I

Final competences

- 1 Being able to independently select appropriate data-analytical procedures for the analysis of repeated measures
- 2 Being able to independently apply appropriate data-analytical procedures for the analysis of repeated measures
- 3 Being able to critically interpret the results of a data-analytical procedure for the analysis of repeated measures

4 Being able to link the research results involving the analysis of repeated measures to the original research question

5 Bearing witness to scientific integrity in research

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture, seminar: practical PC room classes

Learning materials and price

Transparancies (in English) available on minerva

Exercise material available on minerva

Estimated cost: 10 EUR

References

Davis, S.D. (2002). *Statistical Methods for the Analysis of Repeated Measurements*. Springer-Verlag.

Rencher, A.C. (1995). *Methods of multivariate analysis*. New York, Wiley.

Baayen, R.H., Davidson, D.J. & Bates, D.M. (2008).

Mixed-effects modeling with crossed random effects for subjects and items. *Journal of Memory and Language*, 59(4), 390-412

Course content-related study coaching

By appointment

Evaluation methods

end-of-term evaluation

Examination methods in case of periodic evaluation during the first examination period

Open book examination

Examination methods in case of periodic evaluation during the second examination period

Open book examination

Examination methods in case of permanent evaluation

Possibilities of retake in case of permanent evaluation

not applicable

Calculation of the examination mark

Students who do not participate in all required elements of the periodic and permanent evaluation will at most receive a non-deliberative quotation (7/20).