



Course and Examination Fact Sheet: Autumn Semester 2018

10,420: Basics in Experimental Research

ECTS credits: 4

Overview examination/s

(binding regulations see below)

Decentral - Presentation (individual) (40%)

Decentral - Presentation (individual) (60%)

Attached courses

Timetable -- Language -- Lecturer

[10,420,1.00 Basics in Experimental Research](#) -- Englisch -- [de Bellis Emanuel](#) , [Schlager Tobias](#) , [Demaj Labinot](#)

Course information

Course prerequisites

Students who plan to take this course as an *optional* course and *without an examination* should not register via the bidding system. They should register directly with the lecturer.

Students who plan to take this course as a *regular* course or as an *optional* course *with an examination* should register via the bidding system. Enrollment in a course is binding: students have to attend the course and take the exam. The grade will be shown on the scorecard.

Course content

Course Overview

The aim of the doctoral program "Methods in Experimental Research" (MER) is to build up and further develop the increasingly important methodological competence of doctoral students in the humanities and social sciences regarding the organization, implementation and analysis of experiments on human behavior. MER is aimed at doctoral students who wish to establish causality in their research and for which a pure correlational analysis is not sufficient. The experimental method represents an advanced approach to scientific work. MER therefore requires that doctoral students have a basic understanding of the scientific method. Nevertheless, MER is a program that supports interested doctoral students of all disciplines in mastering the introduction into the experimental method of behavioral research and to further develop this methodological competence.

MER consists of two successive courses/modules taking place in the fall and spring semester, respectively. Module 1, "Basics in Experimental Research", aims at providing doctoral students with the basics of experimental research. The focus is on the composition of methodological competences; that is, on enabling students to design a thorough experimental research project in their field of interest. Through a combination of interactive seminars, self-study and practical application students are guided through the critical design questions of an experiment while learning to transform an initial research question into a rigorous and feasible research plan. Module 1 includes an overview of statistical methods for the analysis of experimental data. The main goal of Module 1, however, is to provide doctoral students with the ability to create an experimental design for their own research question(s) at the end of the semester.

After completing Module 1 on the basics of experimental research, doctoral students can further improve their training in experimental research methods by

- signing up for Prof. Gerald Häubl's course "10,826,1.00 Experimental Design for Behavioral Science" through the regular HSG enrolment process or at the next GSERM (www.gserm.ch)

- visiting Module 2 of the MER in the spring semester



Grading

After the first three meetings, students are expected to prepare a proposal for an experiment that they aim to conduct in their field of study. A first preliminary version of the proposal is due by Meeting 4 (only as a PPT file). Students then continue working on their proposal based on the feedback received. The final version (written report, three to five pages) is due December 21, 2018 (10 pm MET). The presentation of the final proposal will take place at Meeting 5.

- Preliminary Experimental Proposal (Presentation): 40%
- Final Experimental Proposal (Report and Presentation): 60%

Course structure

Course Content, Structure, Assignments and Readings

Course Book	Webster, M., & Sell, J. (2014), <i>Laboratory Experiments in the Social Sciences</i> , Academic Press.
Meeting 1	<p>Introduction to Experiments as a Method of Scientific Inquiry</p> <p>Content:</p> <ol style="list-style-type: none"> 1. General introduction to the course and its objectives 2. Experiments and the general scientific method 3. Basic principles and designs of experiments 4. Example of an application of the experimental method 5. Introduction to the Behavioral Lab of the University of St.Gallen <p>Objectives - After this meeting, students will be able to:</p> <ul style="list-style-type: none"> • state the expectations that they should meet at the end of the semester • discuss in what ways the experimental method differs from other methods of scientific inquiry and what contribution experiments can make to the overall research endeavor • explain the basic principles and designs of experiments • critically reflect on design choices of specific scientific experiments • use the Behavioral Lab to organize and conduct their own experiment(s)
Mandatory Readings	<p>Popper, K. R. (2009). <i>Wissenschaftslehre in entwicklungstheoretischer und logischer Sicht</i>. In K. R. Popper (Ed.), <i>Alles Leben ist Problemlösen über Erkenntnis, Geschichte und Politik</i> (12. ed., pp. 15-46). München: Piper.</p> <p>Sartori, G. (1970). <i>Concept Misformation in Comparative Politics</i>. <i>American Political Science Review</i>, 64(4), pp. 1033-1053.</p> <p>Webster, M., & Sell, J. (2014), <i>Laboratory Experiments in the Social Sciences</i>, Academic Press, chapters 1, 2, and 3.</p>
Optional Readings	<p>Webster, M., & Sell, J. (2017). <i>Theory and Experimentation in the Social Sciences</i>. In W. Outhwaite & S. P. Turner (Eds.), <i>The SAGE Handbook of Social Science Methodology</i> (pp. 192-211): SAGE Publications Ltd.</p> <p>Campbell, D. T. (1957). <i>Factors Relevant to the Validity of Experiments in Social Settings</i>. <i>Psychological Bulletin</i>, 54(4), 297-312.</p> <p>Lucas, J. W. (2003). <i>Theory-Testing, Generalization, and the Problem of External Validity</i>. <i>Sociological Theory</i>, 21(3), 236-253.</p>



	<p>Hertwig, R., & Ortmann, A. (2001). Experimental Practices in Economics: A Methodological Challenge for Psychologists? <i>Behavioral and Brain Sciences</i>, 24(3), pp. 383-451.</p> <p>Druckman, D. (2005). <i>Doing Research: Methods of Inquiry for Conflict Analysis</i>. Thousand Oaks, Calif.: Sage Publications, chapter 3.</p>
Meeting 2	<p>How to Successfully Conduct Experiments</p> <p>Content:</p> <ol style="list-style-type: none"> 1. Types of experiments 2. Dos and don'ts 3. Participants and stimuli 4. Tools and software 5. Reporting <p>Objectives - After this meeting, students will be able to:</p> <ul style="list-style-type: none"> • distinguish and conduct online, lab, and field experiments, as well as mixed approaches • avoid the common pitfalls in running experiments • deal with participants as well as use stimuli • apply tools and software to answer their research question • report their experiment in a clear and concise way
Mandatory Readings	<p>Webster, M., & Sell, J. (2014), <i>Laboratory Experiments in the Social Sciences</i>, Academic Press, chapters 5, 6, and 7.</p> <p>Bem, D. (1987). <i>Writing the empirical journal</i>. The compleat academic: A practical guide for the beginning social scientist.</p>
Meeting 3	<p>Creating online experiments</p> <p>Content:</p> <ol style="list-style-type: none"> 1. Characteristics and particularities of online experiments 2. Recruitment of participants online 3. Tools and software for online experiments (Unipark + MTurk) 4. Opportunities and limitations compared to standard experiments <p>Objectives - After this meeting, students will be able to:</p> <ul style="list-style-type: none"> • know about the characteristics of online experiments • know how to recruit participants and control the sample in online experiments • control whether participants cognitively reflected upon the tasks • apply Unipark to create online experiments • know how to effectively use online platforms as MTurk for online experiments
Optional Readings	<p>Buhrmester, M, T Kwang, and SD Gosling (2011), Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data? <i>Perspectives on Psychological Science</i>, 6(1), 3-5.</p> <p>Dillman, DA, JD Smyth, and LM Christian (2008), <i>Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method</i>, 3rd edition, Hoboken, NY: John Wiley & Sons.</p> <p>Giorgieva, D (2012), "An introduction into A/B testing for marketing</p>



	<p>optimization," <i>HubSpot</i>. Available from:http://cdn2.hubspot.net/hub/53/file-13221855-pdf/docs/ebooks/introduction_to_ab_testing_for_marketing_optimization.pdf.</p> <p>Paolacci, Gabriele and Jesse Chandler (2014), "Inside the Turk," <i>Current Directions in Psychological Science</i>, 23 (3), 184-88.</p> <p>Paolacci, Gabriele, Jesse Chandler, and Panagiotis G Ipeirotis (2010), "Running Experiments on Amazon Mechanical Turk."</p> <p>Reips, UD (2002) Standards for Internet-Based Experimenting. <i>Experimental Psychology</i>. 49(4), 243-56.</p> <p>Ross, J, L Zaldivar, L Irani, L and B Thomlinson (2010), "Who are the Turkers? Worker Demographics in Amazon Mechanical Turk," <i>ACM</i>. 2863-72.</p>
<i>Preparation of Preliminary Experimental Proposals (only as a PPT)</i>	
Meeting 4	Presentations of Individual/Group Experimental Proposals (Preliminary Version)
<i>Preparation of Final Experimental Proposals (written report, max. 5 pages)</i>	
17.12.2019 22:00	Upload your final experimental proposal to the class Dropbox folder
Meeting 5	Presentations of Individual/Group Experimental Proposals (Final Version)

Course literature

See readings for each meeting

Additional course information

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Examination information

Examination sub part/s

1. Examination sub part (1/2)

Examination time and form

Decentral - Presentation (individual) (40%)

Remark

Preliminary Experimental Proposal (Presentation)

Examination-aid rule

Practical examination

No examination-aid rule is necessary for such examination types. The rules and regulations of the University of St. Gallen apply in a subsidiary fashion.



Supplementary aids

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Examination languages

Question language: English

Answer language: English

2. Examination sub part (2/2)

Examination time and form

Decentral - Presentation (individual) (60%)

Remark

Final Experim. Proposal (Report & Presentation)

Examination-aid rule

Practical examination

No examination-aid rule is necessary for such examination types. The rules and regulations of the University of St. Gallen apply in a subsidiary fashion.

Supplementary aids

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Examination languages

Question language: English

Answer language: English

Examination content

See Section Course Content, Grading

Examination relevant literature

See mandatory readings for each meeting in Section Course Structure

Please note

We would like to point out to you that this fact sheet has absolute priority over other information such as StudyNet, faculty members' personal databases, information provided in lectures, etc. When will the fact sheets become binding?

- Information about courses and examination time (central/decentral and grading form): from the start of the bidding process on 23 August 2018
- Information about decentral examinations (examination-aid rule, examination content, examination relevant literature): after the 4th semester week on 15 October 2018
- Information about central examinations (examination-aid rule, examination content, examination relevant literature): from the start of the enrolment period for the examinations on 05 November 2018

Please look at the fact sheet once more after these deadlines have expired.