



## Course and Examination Fact Sheet: Autumn Semester 2022

### 10,203: Basics in Experimental Research

ECTS credits: 4

#### Overview examination/s

(binding regulations see below)

Decentral - Presentation (individual) (40%)

Examination time: term time

Decentral - Presentation (individual) (60%)

Examination time: term time

#### Attached courses

Timetable -- Language -- Lecturer

[10,203,1,00 Basics in Experimental Research](#) -- Englisch -- [de Bellis Emanuel](#), [Siren Charlotta](#)

#### Course information

##### Course prerequisites

Those students who plan to take this course as an *optional course without an examination should also register via the bidding system.*

##### Learning objectives

Having successfully taken this class, students will be able to:

- Understand the basics of experiments including basic principles
- Understand what types of experiments exist
- Understand the advantages and disadvantages of experiments
- Know the characteristics and particularities of online experiments
- Apply experimental methods in their own dissertation and research projects
- Report their experiments in a clear and concise way

#### Course content

##### Course Overview

This course is a part of the doctoral program "Methods in Experimental Research" (MER). MER aims to build up and develop the methodological competence of doctoral students in the humanities and social sciences regarding the organization, implementation, and analysis of human behavior experiments.

MER is aimed at doctoral students who wish to establish causality in their research in situations where a pure correlational analysis is not sufficient. An experimental method is an advanced approach to scientific work. MER requires that doctoral students have a basic understanding of the scientific method. Nevertheless, MER is a program that supports doctoral students across all disciplines who are interested in experimental methods for behavioral research and who wish to further develop their methodological competence in this subject.

MER consists of two successive courses/modules taking place in the fall and spring semesters, respectively:

- "Basics in Experimental Research" (Fall)
- "Workshop Series in Experimental Research Tools" (Spring)



The Fall course, "Basics in Experimental Research", provides doctoral students with the basic knowledge of experimental research so that they can successfully apply this method in their own dissertation. The focus is on the composition of methodological competencies enabling students to design a thorough experimental research project in their field of interest. Through 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. The course also includes an overview of statistical methods for the analysis of experimental data. The main goal of the course, 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. You are welcome to the Fall course without taking the Spring course, and you can also decide to take just one of the courses.

## 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. In Meeting 4 students will present the initial version of their experimental proposals and receive feedback. At this stage, no written work, except a PowerPoint file is needed. Students then continue working on their proposal based on the feedback received. The final version (written report, three to five pages) is due a few days before Meeting 5. 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 and indications of the learning and teaching design

### Course Content, Structure, Assignments and Readings

Course Book	Webster, M., & Sell, J. (2014), Laboratory Experiments in the Social Sciences, Academic Press.
Meeting 1	<p><b>Introduction to Experiments as a Method of Scientific Inquiry</b></p> <p>Content:</p> <ol style="list-style-type: none"><li>1. General introduction to the course and its objectives</li><li>2. Basic principles and designs of experiments</li><li>3. Advantages and disadvantages of experiments</li><li>4. Example of an application of an experimental method</li><li>5. Introduction to the Behavioral Lab of the University of St.Gallen</li></ol> <p>Objectives - After this meeting, students will be able to:</p> <ul style="list-style-type: none"><li>• state the expectations that they should meet at the end of the semester</li><li>• 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</li><li>• explain the basic principles and designs of experiments</li><li>• critically reflect on design choices of specific scientific experiments</li><li>• understand the advantages and disadvantages of experiments</li><li>• understand the services the Behavioral Lab provides to students to conduct their own experiment(s)</li></ul>
Mandatory Readings	Webster, M., & Sell, J. (2014), Laboratory Experiments in the Social Sciences, Academic Press, <b>chapters 1, 2, and 3</b> (course book).  Stevenson, R. M., Josefy, M. A., McMullen, J. S., & Shepherd, D. A. (2020). Organizational and Management Theorizing Using Experiment-Based Entrepreneurship Research: Covered Terrain and New Frontiers. <i>Academy of Management Annals</i> .



Optional Readings	<p>Stevenson, R. M., &amp; Josefy, M. (2019). Knocking at the Gate: The Path to Publication for Entrepreneurship Experiments through the Lens of Gatekeeping Theory. <i>Journal of Business Venturing</i>, 34(2), 242-260.</p> <p>Grégoire, D. A., Binder, J. K., &amp; Rauch, A. (2019). Navigating the Validity Tradeoffs of Entrepreneurship Research Experiments: A Systematic Review and Best-practice Suggestions. <i>Journal of Business Venturing</i>, 34(2), 284-310.</p>
Meeting 2	<p><b>How to Successfully Conduct Experiments</b></p> <p>Content:</p> <ol style="list-style-type: none"><li>1. Types of experiments</li><li>2. Do's and don'ts</li><li>3. Participants and stimuli</li><li>4. Tools and software</li><li>5. Reporting</li></ol> <p>Objectives - After this meeting, students will be able to:</p> <ul style="list-style-type: none"><li>• distinguish and conduct online, lab, and field experiments, as well as mixed approaches</li><li>• avoid the common pitfalls in running experiments</li><li>• deal with participants as well as use stimuli</li><li>• apply tools and software to answer their research question</li><li>• report their experiment in a clear and concise way</li></ul>
Optional Readings	<p>Bem, D. (1987). <i>Writing the empirical journal article</i>. The compleat academic: A practical guide for the beginning social scientist.</p> <p>Morales, A. C., Amir, O., &amp; Lee, L. (2017). Keeping it real in experimental research-Understanding when, where, and how to enhance realism and measure consumer behavior. <i>Journal of Consumer Research</i>, 44(2), 465-476.</p>
Meeting 3	<p><b>Creating online experiments</b></p> <p>Content:</p> <ol style="list-style-type: none"><li>1. Characteristics and particularities of online experiments</li><li>2. Recruitment of participants online</li><li>3. Tools and software for online experiments (Unipark + MTurk)</li><li>4. Opportunities and limitations compared to standard experiments</li></ol> <p>Objectives - After this meeting, students will be able to:</p> <ul style="list-style-type: none"><li>• know about the characteristics of online experiments</li><li>• know how to recruit participants and control the sample in online experiments</li><li>• control whether participants cognitively reflected upon the tasks</li><li>• apply Unipark to create online experiments</li><li>• know how to effectively use online platforms such as MTurk for online experiments</li></ul>
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 &amp; Sons.</p>



	<p>Giorgieva, D (2012), "An introduction into A/B testing for marketing optimization," <i>HubSpot</i>. Available from:<a href="http://cdn2.hubspot.net/hub/53/file-13221855-pdf/docs/ebooks/introduction_to_ab_testing_for_marketing_optimization.pdf">http://cdn2.hubspot.net/hub/53/file-13221855-pdf/docs/ebooks/introduction_to_ab_testing_for_marketing_optimization.pdf</a>.</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," ACM. 2863-72.</p>
<p><i>Preparation of Preliminary Experimental Proposals (only as a PowerPoint file)</i></p>	
Meeting 4	<b>Presentations of Individual Experimental Proposals (Preliminary Version)</b>
<p><i>Preparation of Final Experimental Proposals (written report, max. 5 pages)</i></p>	
	Upload your final experimental proposal
Meeting 5	<b>Presentations of Individual Experimental Proposals (Final Version)</b>

## Course literature

See readings for each meeting

## Additional course information

In case of administrative and content-related questions, please contact the lecturer, Prof. Dr. Charlotta Sirén, at [charlotta.siren@unisg.ch](mailto:charlotta.siren@unisg.ch).

## Examination information

### Examination sub part/s

#### 1. Examination sub part (1/2)

##### Examination time and form

Decentral - Presentation (individual) (40%)

Examination time: term time

##### 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

--

## Examination languages

Question language: English

Answer language: English

---

## 2. Examination sub part (2/2)

### Examination time and form

Decentral - Presentation (individual) (60%)

Examination time: term time

### 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

--

## 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

Please note that only this fact sheet and the examination schedule published at the time of bidding are binding and takes precedence over other information, such as information on StudyNet (Canvas), on lecturers' websites and information in lectures etc.

Any references and links to third-party content within the fact sheet are only of a supplementary, informative nature and lie outside the area of responsibility of the University of St.Gallen.

Documents and materials are only relevant for central examinations if they are available by the end of the lecture period (CW51) at the latest. In the case of centrally organised mid-term examinations, the documents and materials up to CW 42 are relevant for testing.

Binding nature of the fact sheets:

- Course information as well as examination date (organised centrally/decentrally) and form of examination: from bidding start in CW 34 (Thursday, 25 August 2022);
- Examination information (regulations on aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 17 October 2022);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 42 (Monday, 17 October 2022);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the registration period in CW 45 (Monday, 7 November 2022).