

Course and Examination Fact Sheet: Autumn Semester 2025

10,203: Basics in Experimental Research

ECTS credits: 4

Overview examination/s

(binding regulations see below)

decentral - Presentation, Analog, Individual work individual grade (60%)

Examination time: Term time

decentral - Presentation, Analog, Individual work individual grade (40%)

Examination time: Term time

Attached courses

Timetable -- Language -- Lecturer 10,203,1.00 Basics in Experimental Research -- English -- de Bellis Emanuel , Schlager Tobias

Course information

Prerequisites

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 completed this class, students will be able to:

Design and Execute Rigorous Experiments

- Master the fundamentals of experimental design, including randomization, control groups, and treatment manipulation
- · Identify and select the most appropriate experimental approach (lab, field, or online) for specific research questions
- Design experiments that establish causality while maintaining internal and external validity

Navigate the Experimental Research Landscape

- · Critically evaluate the strengths and limitations of experimental methods compared to correlational approaches
- Understand when experiments are the optimal methodological choice for answering research questions
- Recognize and mitigate common threats to validity in experimental research

Implement Cutting-Edge Digital Research Methods

- Design and deploy online experiments using modern platforms (Qualtrics, Prolific)
- · Apply best practices for participant recruitment, data quality control, and attention checks in digital environments
- $\bullet \qquad \text{Leverage the unique advantages of online experimentation while managing its limitations} \\$

Apply Experimental Methods to Your Own Research

- Transform your theoretical research questions into testable experimental hypotheses
- Develop and refine experimental protocols through iterative feedback and peer review
- Integrate experimental findings with broader theoretical frameworks in your field



Publish High-Impact Experimental Research

- Master the methodological rigor required by top-tier management journals
- Apply open science principles including pre-registration, power analysis, and transparent reporting
- Design studies that meet the high standards of leading academic outlets

Content

This application-oriented course transforms doctoral students into skilled experimental researchers, providing hands-on experience in designing and refining experiments for behavioral science. As part of the "Methods in Experimental Research" (MER) program, you'll work directly on your own research questions while learning from peers across disciplines.

Experimental methods are the gold standard for testing causal relationships and are increasingly expected by top-tier journals. Through an open science approach emphasizing transparency, reproducibility, and rigorous design, this course equips you with the tools to create experiments that can be published in leading outlets in management, economics, and behavioral sciences.

What Makes This Course Unique

Your Research, Enhanced: This isn't just about learning methods—it's about improving YOUR experiments. Bring your research questions and leave with a refined experimental design ready for implementation.

Open Science Principles: Learn to conduct transparent, reproducible research through pre-registration, power analysis, and open data practices that are becoming standard in top journals.

Expert Instruction Across Disciplines: Faculty with extensive experimental research experience in marketing, entrepreneurship, and management provide diverse perspectives on your specific research challenges.

Publication-Ready Skills: Master the methodological rigor demanded by top journals while working on your actual research projects.

Course Journey

Foundation Phase (Meetings 1-2): Establish core experimental principles while applying them to your research. Learn why experiments uniquely establish causality, explore various experimental designs, and begin translating your research questions into experimental frameworks.

Digital Skills Phase (Meeting 3): Master modern tools for your experiments, including Qualtrics for survey experiments and Prolific for participant recruitment. Apply open science practices like pre-registration and learn to maintain transparency in digital environments.

Application & Refinement Phase (Meetings 4-5): Present your experimental designs and receive constructive feedback from faculty and peers. Refine your proposals through iterative improvement, ensuring they meet both open science standards and top-journal requirements.

Key Takeaways

This application-oriented approach ensures you leave with:

- A refined experimental proposal for your own research, developed through peer feedback
- Practical skills in modern experimental platforms and open science tools
- Understanding of how to design transparent, reproducible experiments
- Confidence to implement experiments that meet publication standards

By working on your actual research throughout the course, you'll immediately apply what you learn, making the transition from course to dissertation research seamless. The emphasis on open science practices positions you at the forefront of methodological best practices in your field.



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	Introduction to Experiments as a Method of Scientific Inquiry
	Content:
	 General introduction to the course and its objectives Basic principles and designs of experiments Advantages and disadvantages of experiments Example of an application of an experimental method Introduction to the Behavioral Lab of the University of St.Gallen
	Objectives - After this meeting, students will be able to:
	 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 understand the advantages and disadvantages of experiments understand the services the Behavioral Lab provides to students to conduct their own experiment(s)
Mandatory Readings	Webster, M., & Sell, J. (2014), Laboratory Experiments in the Social Sciences, Academic Press, chapters 1, 2, and 3 (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	Stevenson, R. M., & 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.
	Grégoire, D. A., Binder, J. K., & 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.
Meeting 2	How to Successfully Conduct Experiments
	Content:
	 Types of experiments Do's and don'ts Participants and stimuli Tools and software Reporting
	Objectives - After this meeting, students will be able to:



Optional Readings	 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 Bem, D. (1987). Writing the empirical journal article. The compleat academic: A practical guide for the beginning social scientist. Morales, A. C., Amir, O., & 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.
Meeting 3	Creating online experiments
	Content: 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
	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 such as MTurk for online experiments
Optional Readings	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. 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. Giorgieva, D (2012), "An introduction into A/B testing for marketing 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 .
	Paolacci, Gabriele and Jesse Chandler (2014), "Inside the Turk," <i>Current Directions in Psychological Science</i> , 23 (3), 184-188. Paolacci, Gabriele, Jesse Chandler, and Panagiotis G Ipeirotis (2010), "Running Experiments on Amazon Mechanical Turk", <i>Judgement and Decision Making</i> , 5 (5), 411-419. Reips, UD (2002), Standards for Internet-Based Experimenting. <i>Experimental Psychology</i> . 49(4), 243-256. Ross, J, L Zaldivar, L Irani, L and B Thomlinson (2010), "Who are the Turkers?Worker Demographics in Amazon Mechanical Turk," ACM. 2863-2872.
	Preparation of Preliminary Experimental Proposals (only as a PowerPoint file)
Meeting 4	Presentations of Individual Experimental Proposals (Preliminary Version)

Preparation of Final Experimental Proposals (written report, max. five pages)		
	Upload your final experimental proposal	
Meeting 5	Presentations of Individual Experimental Proposals (Final Version)	

Literature

See readings for each meeting

Additional information

The date, time, and location information in the fact sheet is non-binding. Binding information on time and place will be published on the course website.

Examination information

Examination sub part/s

1. Examination sub part (1/2)

Examination modalities

Examination type Presentation
Responsible for organisation decentral
Examination form Oral examination

Examination mode Analog
Time of examination Term time
Examination execution Asynchronous
Examination location On Campus

Grading type Individual work individual grade

Weighting 60% Duration --

Languages

Question language: English Answer language: English

Remark

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Examination-aid rule Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

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2. Examination sub part (2/2)

Examination modalities

Examination type Presentation
Responsible for organisation decentral

Examination form Oral examination

Examination mode Analog
Time of examination Term time
Examination execution Asynchronous
Examination location On Campus

Grading type Individual work individual grade

Weighting 40% Duration --

Languages

Question language: English Answer language: English

Remark

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Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

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Content

See section Course Content, Grading

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 43 (Freitag, 24. October 2025) 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, 21 August 2025);
- Examination information (supplementary aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 13. October 2025);
- Examination information (supplementary aids, examination contents, examination literature) for centrally
 organised mid-term examinations: in CW 43 (Freitag, 24. October 2025);
- Examination information (regulations on aids, examination contents, examination literature) for centrally
 organised examinations: two weeks before ending with de-registration period in CW 45 (Monday, 03.
 November 2025).