



Research Methods Undergraduate Course Information Guide

Research Methods Course Number: LL 301 - 6 credits, 10 Weeks
Delivery Formats: Online Async

<u>Learning Outcomes</u>	<u>Learning Strategies and Resources</u>	<u>Learning Deliverables</u>
<u>Assessment/Grading</u>	<u>Course Schedule</u>	<u>Policies</u>

Course Description

This course introduces you to research methods and their application across liberal and professional studies as preparation for lifelong inquiry. Emphasis is on qualitative and quantitative research approaches, experimental design, sampling, measurement, analysis, ethics in research, and research communication. A comprehensive research proposal in your professional area is the primary document produced and assessed in Research Methods. The proposal is the implementation plan for your Capstone Project. Note: Completion of a college-level quantitative reasoning course is recommended before taking this course.

Learning Outcomes

After completing this course, you will be able to:

- Discuss the concept and language of research (e.g., hypotheses, variables, types of data, and analysis).
- Undertake a review of the recent and scholarly literature, including key points, patterns, and theories published in your area of inquiry, indicating where knowledge gaps exist for original contributions and innovations.
- Demonstrate the ability to settle on a research topic area and to formulate a research question.
- Discuss and evaluate research validity.
- Discuss the nature of research and distinguish between the three key forms: exploratory research, descriptive research and explanatory research.
- Converse on the topic of research ethics and how it impacts research design and the sorts of research endeavors possible in a civil society.

- Demonstrate the proper application of research ethics principles in a proposal including concepts of informed consent, institutional review, and ethics codes.
- Demonstrate an understanding of key concepts of qualitative research to study phenomena and apply them to participant and direct observations such as interviews, case studies and focus groups.
- Demonstrate an understanding of common types of sampling and an ability to apply an appropriate one to achieve a research proposal objective.
- Discuss concepts of probability and sampling error.
- Identify essential variables related to your inquiry (independent, dependent and control) and incorporate them into the framing of a research question or hypothesis.
- Discuss the levels of measurement such as nominal, ordinal interval and ratio and aspects of the quality of measurements such as reliability and validity.
- Demonstrate how to scale data collection and/or build tests and surveys.
- Discuss and provide examples of how to design research to establish cause-effect relationships, including the concept of a control group.
- Determine the various 'threats' to confirming cause-effect relationships in your own proposed research.
- Demonstrate an ability to employ experimental design by formulating a study design with a null hypothesis.
- Demonstrate an understanding and integration of basic statistical procedures into a research proposal, including those that are the foundation of 'descriptive statistics' (means, medians, modes, distribution, variation, correlation, analysis of variance and analysis of covariance).
- Communicate proposed research to an audience following a presentation rubric.
- Synthesize the components of research methods into a research proposal.

Learning Strategies and Resources

Some learning activities, assignments and deadlines will vary depending on the delivery format of the course and may differ slightly from what is presented in this document.

This course uses the following learning approaches:

- Weekly discussion forums that center on module topics and exercises.
- Weekly exercises that support the practical application of concepts to the development of a research proposal.

- A Library Refresher assignment to practice discovering relevant scholarly literature.
- A Statistics Workshop to foster learning basic concepts of statistics applicable to research methods.
- Development of a research proposal to synthesize and apply acquired research methods.
- Videos and readings to introduce and reinforce research methods concepts.

Required Readings

Books and learning materials are available at the DePaul bookstore, at <http://depaul-loop.bncollege.com>, or through alternative sources.

Trochim, W. M. K., Donnelly, J. P., & Arora, K. (2016). Research methods: The essential knowledge base. Boston, MA: Cengage Learning.

Series: MindTap Course List

Paperback: 448 pages

Publisher: Wadsworth Publishing; 2 edition (January 1, 2015) Language: English

ISBN-10: 1133954774

ISBN-13: 978-1133954774

Online resources and videos are aligned with specific modules and are available in the corresponding Readings and Media section of the course D2L website.

[Back to Top](#)

Learning Deliverables

The evidences of learning for which students will be graded are the assignments outlined and scaffolded below.

Exercise 1: Selecting an Area of Research in your professional area

Library Research Refresher

Exercise 2: Research Ethics

Exercise 3: Annotated Bibliography

Exercise 4: Literature Review

Exercise 5: Initial Research Question/Hypothesis

Statistics Workshop

Exercise 6: Sampling

Exercise 7: Measurement

Exercise 8: Scales, Tests and Surveys

Exercise 9: Cause and Effect -

Partial Draft of Research Proposal (Sections 4-6)

Exercise 10: Null Hypothesis and Research Hypothesis

Final Research Proposal (including Sections 1-3; 7-9)

Presentation– Research Proposal Summary

Final Research Proposal

Assessment of Student Learning

Grading Practices

To complete the course, students must fulfill each of the assignments as described in the course and submit them to the instructor by the assigned deadline in the course submission area. In addition, students must participate in the course discussion forum by responding to all discussion instructions and by interacting with fellow classmates as required.

Distribution of Grade Points

Graded Assignments	Percentage of Final Grade
Discussions	20%
Library Refresher	4%
Statistics Workshop	10%
Exercises	26%
Partial Draft of Research Proposal	10%
Presentation– Research Proposal Summary	5%
Final Research Proposal	25%

Grading Scale

A = 93 to 100	A- = 90 to 92	B+ = 87 to 89
B = 84 to 86	B- = 80 to 83	C+ = 77 to 79
C = 74 to 76	C- = 69 to 73	D+ = 65 to 68
D = 60 to 64	F = 59 or below	INC

[Back to Top](#)

Course Schedule

Week or Module Title or Theme	Readings / Learning Activities	Graded Assignments
Week 1, Module 1: Foundations of Research Methods	<p>Chapter 1 Trochim et al. 'Foundations of Research Methods'</p> <p>Review: Narrowing a Topic and Developing a Research Question</p> <p>21 Ways of Generating Research Ideas from Previous Research</p> <p>Video 'What is Research I'</p> <p>Video 'What is research II'</p> <p>Video 'Nature of Research'</p> <p>Video - Using the Library to Research Refresher</p>	<p>Defining Research</p> <p>To determine fundamental aspects the fundamental characteristics of research and how humans go about conducting it.</p>
Week 2, Module 2: Research Ethics & Research Communication	<p>Chapter 2 Trochim et al. 'Ethics'</p> <p>Video 'A Public Documentary on the History of Research Ethics'</p> <p>Video Belmont Report</p>	<p>Ethics</p> <p>To examine and discuss aspects of research ethics drawing from considerations in your area of study.</p>

	<p>Video Medical Research Example</p> <p>Chapter 13 Trochim et al. 'Research Communications'</p> <p>Video 'Introduction to academic research'</p> <p>Video 'The Research Proposal'</p> <p>Video - The Annotated Bibliography Series</p>	
Week 3, Module 3: Qualitative Approaches	<p>Chapter 3 Trochim et al. 'Qualitative Approaches to Research'</p> <p>Video 'Overview of Qualitative Research Methods'</p> <p>Video 'Types of qualitative data collection Part I and Part II'</p> <p>Video - Literature Review Series</p>	<p>Qualitative Research</p> <p>To examine and discuss aspects of qualitative approaches to research drawing from information provided in readings and videos.</p>
Week 4, Module 4: Sampling	<p>Chapter 4 Trochim et al. 'Sampling'</p> <p>Video 'Overview of Quantitative Research Methods'</p> <p>Video - Sampling</p>	<p>Sampling</p> <p>To examine and discuss aspects of sampling approaches to research drawing from information provided in readings, videos and statistics workshop.</p>
Week 5, Module 5: Introduction to Measurement	<p>Chapter 5 Trochim et al. 'Introduction to Measurement'</p> <p>Video 'Nominal, ordinal, interval and ratio data: How to...'</p> <p>Video 'Precision and Accuracy'</p> <p>Video 'Validity and Reliability'</p>	<p>Measurement</p> <p>Levels of measurement and reliability and validity drawing from the module readings and videos.</p>

Week 6, Module 6: Scales, Tests and Surveys	<p>Chapter 6 Trochim et al. 'Scales, Tests, and Indices'</p> <p>Video 'Likert Scale Example'</p> <p>Chapter 7 Trochim et al. Survey Research'</p> <p>Video 'Survey in 10 Steps'</p>	<p>Data Instruments</p> <p>To examine, discuss and apply an aspects of research scaling.</p>
Week 7, Module 7: Research Design	<p>Chapter 8 Trochim et al. 'Introduction to Design'</p> <p>Video 'Types of Experimental Design'</p>	<p>Cause and Effect</p> <p>To examine and discuss aspects of research design such as: 1) research design types, 2) structuring a study, 3) recognizing 'threats' to the validity of data.</p>
Week 8, Module 8: Experimental Design	<p>Chapter 9 Trochim et al. 'Experimental Design'</p> <p>Video 'What is a null hypothesis?'</p> <p>Video 'Null Hypothesis, p-Value, Statistical Significance, Type 1 Error and Type 2 Error'</p>	<p>Experimental Design</p> <p>Describe how/if aspects of randomization can be built into the study by drawing from your readings and video.</p>
Week 9, Module 9: Data Analysis/Basic Statistics/Inferential Analysis	<p>Chapter 10 Trochim et al. 'Introduction to Data Analysis'</p> <p>Chapter 11 Trochim et al. 'Introduction to Data Analysis'</p> <p>Videos: How to Pitch your research proposal</p>	<p>Data Analysis</p> <p>Techniques you learned in the statistics workshop and their potential application to your proposed study.</p>
Week 10, Module 10: Finalizing and Communicating your Research	No Readings or Supplements.	<p>The final discussion provides you an outlet to present a basic sketch of your research proposal to the class and review other students' presentations.</p>

[Back to Top](#)

Course Policies

For access to all SCPS and DePaul University academic policies, refer to the following links:

[SCPS Student Resources Website](#)

[DePaul Student Handbook](#)

The [D2L Course Website](#) for this course.

Course Syllabus

The official syllabus for this course that includes course dates, instructor information and quarter specific details will be provided by the course instructor by the start of the course and available on the course D2L website.

Course Registration

To find out when this course will be offered next, you can go to the [SCPS Registration website](#) for details on how to register for the course.

For information on how this course can apply to your program, contact your academic advisor.

School of Continuing and Professional Studies

Suite 1400, Daley Building, 14 E. Jackson Blvd., Chicago
Website: <https://scps.depaul.edu/>

Office hours: 9:00 am - 5:00 pm, Monday-Friday.
Telephone: 312-362-8001. General Email: scps@depaul.edu
For Advising Assistance, call (312) 362-5445 or email scpsadvising@depaul.edu

This document was updated 7-1-24.

[Back to Top](#)