



Psychology 650	Clinical Research	Winter 2022
Instructor: Dr. Anna MacKinnon	Lecture Location: AD247	
Phone: 403-220-4336	Lecture Days/Time: Alternate R 9:00-10:50	
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Course Description and Objectives

The primary focus of this course is to provide students with a strong background in conducting and evaluating research in clinical psychology. This course will cover all facets of research from the inception of a research idea to its eventual dissemination. The textbook provides a high level of detail regarding research design, methodology, and statistical issues - which can be used as more of a reference guide rather than something to memorize. The lectures and assignments will focus on the application of research methods and evaluation skills to both published articles and students' own research. Students will be encouraged to think broadly about their research (e.g., theoretical/conceptual foundations and contributions, practice and policy implications, etc.). They will also be expected to justify decisions made in the context of designing their research, consider the pros and cons of alternative designs, and take a position on topical issues. Specific course objectives include: (1) allowing students to share and develop their own research ideas and plans, (2) developing and enhancing skills in critical thinking and integrating research findings, (3) developing oral and visual presentation skills, and (4) providing exposure to selected research-related professional issues. My hope is that throughout the course we will help each other become more critical thinkers and better researchers through lectures, presentations, constructive feedback, and discussions. Lively, thoughtful discussions will make the class more interesting and enjoyable for all so your efforts to participate will pay off.

Acknowledgments and Respect for Diversity

Our classrooms view diversity of identity as a strength and resource. Your experiences and different perspectives are encouraged and add to a rich learning environment that fosters critical thought through respectful discussion and inclusion. The Department of Psychology would also like to acknowledge the traditional territories of the people of the Treaty 7 region in southern Alberta. The City of Calgary is also home to Métis Nation of Alberta, Region III.

Course Format

This year-long course meets for two hours biweekly. The first two classes will be held via videoconferencing. The remainder of the classes will be held in-person on campus, depending on public health measures and university policies relating to the ongoing COVID-19 pandemic. Students who are symptomatic are encouraged to stay home, videoconferencing to participate will be offered as needed.

Prerequisites

Admission to the Graduate Program in Psychology or by permission of the Director of Clinical Training.

Required Texts and Readings

- Kazdin, A. E. (2017). *Research design in clinical psychology* (5th ed.). New York: Pearson.
Print and digital formats of this text are available through the University of Calgary bookstore.
- Other readings will be assigned.
- The following website provides an overview of reporting guidelines for various types of studies:
<http://www.equator-network.org>

Assessment Methods

- Attendance and participation (40%)
- Article critique midterm (25%) – essay format, content from text/readings/lectures, open book
- Research presentation (25%)
- Research feedback (10%)

Attendance and participation (40%)

Attendance at each class and participation in discussions/research feedback is important for success, and to receive credit, for this course. Students are encouraged to make every effort to attend all classes, and are asked to notify the instructor in advance if they must miss a class. As part of your attendance and participation mark, you will be asked to complete the following two in-class, group exercises:

In Class Group Exercise: Part I – September 23

Students will be given research articles to read prior to coming to class. Drawing on the course readings, you will identify the major strengths and limitations of the research, and distinguish these from less significant issues. Please consider theoretical, ethical, methodological, and statistical issues when critiquing the articles. We will discuss your article critiques in class.

In Class Group Exercise: Part II – October 7

Students will be asked to choose an interesting research question/hypothesis that follows from one of the articles and extends the research in an important way (i.e., not just “more participants” for “more power”). Using one of the designs in Kazdin, describe a follow-up study to address this research question/hypothesis. Please justify why you chose this design over others. For each design, Kazdin highlights issues that need to be considered for implementation (e.g., sampling, rationale for control group, selection of measures, etc.). Please address these issues in the study you are proposing. Assume that you have unlimited resources. Finally, no study is perfect (even in our imaginary world of unlimited resources)! Describe the major limitations of your study. We will discuss your follow-up study in class.

Article critique midterm (25%) – January 13 (due at 10:50am MST)

Students will be given an article to critique as an in-class, open-book exercise, noting both strengths and weaknesses of the research. Students will be asked to critique the article on theoretical, methodological, and statistical grounds, suggesting alternative strategies where possible to improve the research.

Exams in this course are open book. For this course, an open book exam means that the use of class notes and the textbook is permitted. The use of online resources and calculators is permitted. Students may not communicate with others about course material or the exam either in person or electronically during exams.

Research presentation (25%) – March 3 to 31st

Students will each give a 30-minute presentation on their thesis research, following the outline you will be given. Following your presentation you will be asked questions about your research and you will receive written feedback from the class. I will also provide you with feedback on each of the following criteria:

The general criteria for marking your presentation are as follows (note that criteria/weights for criteria will be different for M.Sc. vs. Phd students, reflecting stages of the research):

- Organization and clarity of content
- Knowledge of the extant literature (including relevant theory) and your study as an extension of this
- Your ability to demonstrate the significance of the research and the rationale for your study
- Critical evaluation of your methodology (strengths and weaknesses) and suggestions for improvement (e.g., in an ideal world with vast resources of time and money)
- Your ideas for future research
- Knowledge translation strategies
- Implications of your research (e.g., clinical, policy)
- Your ability to address questions and comments

Feedback on research presentation (10%)

Each student in the class will be responsible for providing written feedback (both strengths and weaknesses) on at least one research presentation and summarizing the oral feedback from others. Feedback should pertain directly to the methodological issues we have discussed in class. This feedback should be typed and sent by e-mail to the course instructor, who will review it and disseminate it to the presenter. This feedback is due to the instructor one week after the oral presentation (R 10:50am MST).

University of Calgary Academic Integrity Policy

Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity.

Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional code of conduct and promote academic integrity in upholding the University of Calgary's reputation of excellence. It is your responsibility to ensure that you have read and are familiar with the student academic misconduct policy:

<https://www.ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf>.

Faculty of Graduate Studies Grading System

A+ = Outstanding performance, A = Excellent performance, A- = Very good performance

B+ = Good performance, B = Satisfactory performance, B- = Minimum pass

C+ All grades of "C+" or lower are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements. Individual programs may require a higher passing grade

Grading Scale

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
A	90-95%	B	76-79%	C	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

As stated in the University Calendar, it is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades. To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

Tentative Lecture Schedule

Date	Topics	Readings
Sept 6	Labour Day, University closed	
Sept 7	Start of classes	
Sep 9	Introduction: Is science important? Are evidenced-based practices inclusive? How do I find a research idea? What are threats to validity? <u>Optional Webinar:</u> <i>Developing & Advancing Anti-Racist Scholarly Practice</i> , presented by Amanda Sullivan, PhD Decolonizing Research Practices in Psychology Teachers College, Columbia University YouTube (April 16, 2021, 4:52-6:11)	Kazdin Ch. 1 to 4 Lilienfeld, S. O., et al. (2014). Science Versus Pseudoscience. <i>The Encyclopedia of Clinical Psychology</i> , 1-7. PDF Ledgerwood, A., et al. (2021). The pandemic as a portal: Reimagining psychological science as truly open and inclusive. PDF <u>Optional:</u> Barnett, A. (2017). Comment: Research needs more competence, less 'excellence'. <i>Nature</i> , 543(7646), S29-S29. PDF Chambers, C. T. (2000). "Where do I start!?: Getting going on your thesis. <i>Psynopsis</i> , 22(4), 24. PDF Chambers, C. T. (2002). How to succeed as a student in Psychology. <i>Psynopsis</i> , 24(3), 14. PDF
Sept 16	Last day to drop a class without financial penalty	
Sept 17	Last day to add or swap a course	
Sep 23	Conducting and Evaluating Research: Part I Experimental & observational designs	Kazdin Ch. 5-8, 10-12

	<p>Assessment/Measurement</p> <p><u>In Class Group Exercise: Part I</u></p>	<p>Neighbours, C. & Lee, C. M. (2006). A brief guide to manuscript reviewing. <i>The Behavior Therapist</i>, 29 (4), 74-76. PDF</p> <p>Appelbaum, M. et al. (2018). Journal article reporting standards for quantitative research in Psychology: The APA Publications and Communications Board task force report. <i>American Psychologist</i>, 73, 3-25. PDF</p> <p>Montgomery, P. et al. (2018). Reporting randomized trials of social and psychological interventions: the CONSORT-SPI 2018 extension. <i>Trials</i>, 19, 407. PDF</p> <p><u>Optional:</u> See the following list of reporting guidelines for a variety of research designs: Equator Network</p> <p>Schulz, K. F. et al. (2010). CONSORT 2010 Statement: updated guidelines for reporting parallel group randomized trials. <i>BMJ</i>, 340, 698-702. PDF</p>
Sept 24	Fee payment deadline for Fall Term full and half courses	
Sept 30	National Day for Truth and Reconciliation, University Closed. Series of events TBA	
Oct 7	<p>Conducting and Evaluating Research: Part II</p> <p>Data Evaluation</p> <p>Patient-Oriented Research</p> <p>Pragmatic Clinical Trials</p> <p><u>In Class Group Exercise: Part II</u></p>	<p>Kazdin Ch. 13-14</p> <p>Johnston, J. N., et al. (2021). Patient oriented research in mental health: matching laboratory to life and beyond in Canada. <i>Research Involvement and Engagement</i>, 7(1), 1-11. PDF</p> <p>Drazen, J. M. et al. (2016). The changing face of clinical trials: pragmatic trials. <i>New Engl J Med</i>, 375, 454-463. PDF</p> <p><u>Optional:</u> Sacristán, J.A. (2013). Patient-centered medicine and patient-oriented research: Improving health outcomes for individual patients. <i>BMC Medical Informatics and Decision Making</i>, 13(1):6. PDF</p> <p>Ghisoni, M. et al. (2017). Priority setting in research: User led mental health research. <i>Research Involvement and Engagement</i>. 3(1):4. PDF</p>
Oct 11	Thanksgiving Day, University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.	
Oct 21	<p>Qualitative Research Methods</p> <p><u>Guest Speaker:</u> Cathy Ringham, RN PhD CNeoN(C) <i>Improvement Consultant</i>, Interior Health, BC Adjunct Professor, School of Nursing, Thompson Rivers University</p>	<p>Kazdin Ch. 9</p> <p>Levitt, H. M. et al. (2018). Journal article reporting standards for qualitative primary, qualitative meta-analytic, and mixed methods research in Psychology: The APA Publications and Communications Board task force report. <i>American Psychologist</i>, 73, 26-46. PDF</p>

		<p>Norris, L. S., et al. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. <i>International Journal of Qualitative Methods</i>, 16, 1-13. PDF</p> <p><u>Optional:</u> What is grounded theory? Link</p> <p>Antaki et al. (2003). Discourse analysis means doing analysis: A critique of six analytic shortcomings. <i>Discourse Analysis Online</i>, 1, 1. Link</p> <p>Smith, J. A., & Shinebourne, P. (2012). <i>Interpretative phenomenological analysis</i>. American Psychological Association. PDF</p>
Nov 4	<p>Knowledge Translation: Part I The dynamic nature of research methods Implementation Science</p> <p><u>Guest Speaker:</u> Kelly MrKlas, PhD Candidate <i>KT Implementation Scientist</i>, Strategic Clinical Networks, Alberta Health Services</p>	<p>Kazdin Ch. 18 and 19</p> <p>Knowledge Translation at CIHR: Link</p> <p><u>Optional:</u> Bauer, M.S., et al. (2015). An introduction to implementation science for the non-specialist. <i>BMC Psychology</i>, 3:32. PDF</p> <p>Graham, I.D., et al. (2006). Lost in knowledge translation: Time for a map? <i>The Journal of Continuing Education in the Health Professions</i>, 26, 13-24. PDF</p> <p>Graham, I.D., et al. (2007). Some theoretical underpinnings of knowledge translation. <i>Academic Emergency Medicine</i>, 14, 936-941. PDF</p>
Nov 7-13	Term Break, No Classes	
Nov 11	Remembrance Day (Observed), University Closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.	
Nov 18	<p>Data Interpretation (negative/n.s. effects) Ethical Issues and Guidelines Scientific integrity</p> <p><u>Guest speaker:</u> Chelsea Moran, MA, PhD Candidate <i>Behavioural Medicine Lab</i>, Department of Psychology, University of Calgary</p>	<p>Kazdin Ch. 15-17</p> <p><u>Optional:</u> Lilienfeld, S. O., & Strother, A. N. (2020). Psychological measurement and the replication crisis: Four sacred cows. <i>Canadian Psychology</i>. PDF</p> <p>Wasserstein, R. L., Schirm, A. L., & Lazar, N. A. (2019). Moving to a world beyond “p< 0.05”. <i>The American Statistician</i>, 73, 1-9. PDF</p>
Dec 2	<p>Community Based Participatory Research</p> <p><u>Guest speaker:</u> Melanie Grier, BA, MSc Candidate <i>Indigenous Organizations' and Communities' Research Lab</i>, Department of Psychology, University of Calgary</p>	<p>Collins, S. E., et al. (2018). Community-based participatory research (CBPR): Towards equitable involvement of community in psychology research. <i>American Psychologist</i>, 73(7), 884. PDF</p> <p>Wallerstein, N.B., & Duran, B. (2006). Using community-based participatory research to address health disparities. <i>Health Promotion Practice</i>, 7, 312-323. PDF</p>

		<p><u>Optional:</u> Flicker, S., et al. (2007). Ethical dilemmas in community-based participatory research: recommendations for institutional review boards. <i>Journal of Urban Health: Bulletin of the New York Academy of Medicine</i>, 84, 478-493. PDF</p> <p>Maiter, S., et al. (2008). Reciprocity: an ethic for community based participatory action research. <i>Action Research</i>, 6, 305-325. PDF</p> <p>Poupart, J., Baker, L., & Red Horse, J. (2009). Research with American Indian communities: the value of authentic partnerships. <i>Children and Youth Services</i>, 31, 1180-1186. Link</p>
Dec 9	Fall Term Lectures End. Last day to withdraw with permission from Fall Term half courses.	
Dec 13-22	Fall Final Exam Period	
Dec 25-31	Holiday observance, University closed.	
Jan 1	New Year's Day, University Closed	
Jan 10	Start of Classes	
Jan 13	<u>Midterm, In-class Article Critique</u>	Open book
Jan 27	<p>Conducting and Evaluating Research: Part II Data Evaluation: Advanced Statistics An Introduction to R</p> <p><u>Guest speaker:</u> Charlie Rioux, PhD, Postdoctoral Fellow <i>Department of Psychology</i> <i>University of Manitoba</i></p>	<p><u>Optional:</u> Little, T. D. (2013). Mediation and Moderation. In T. D. Little (Ed.), <i>Longitudinal structural equation modeling</i>. Guilford Press. Link</p> <p>Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. <i>Communication Monographs</i>, 76(4), 408-420. PDF</p> <p>Twisk, J., Bosman, L., Hoekstra, T., Rijnhart, J., Welten, M., & Heymans, M. (2018). Different ways to estimate treatment effects in randomised controlled trials. <i>Contemporary clinical trials communications</i>, 10, 80-85. PDF</p> <p>Zyphur, M. J. & Oswald F. L. (2015). Bayesian Estimation and Inference: A User's Guide. <i>Journal of Management</i>. 2015, 41(2), 390-420. PDF</p>
Feb 10	<p>Knowledge Translation: Part II Science Communication Media Relations</p> <p><u>Guest speaker:</u> Mark Agius, Project Manager <i>Strategic planning, community engagement, and communications</i> <i>The Owerko Centre, Alberta Children's Hospital Research Institute</i></p>	<p>Caulfield, T. (2021). Science and the Uncertainty Dance. Link</p> <p>Tumlin, T. R. (2006). Ten things psychologists should know when talking to the press. <i>The Behavior Therapist</i>, 29(4), 69-71, 74. Link</p> <p>Best Practices in Science Communication: Link</p> <p>How to Work With the Media: APA</p>
Feb 17	Alberta Family Day. University Closed.	

Feb 20-26	Term Break, No Classes	
Mar 3	Research presentations	
Mar 17	Research presentations	
Mar 31	Research presentations	
Apr 12	End of Classes. Last day to withdraw with permission from full courses.	
Apr 15	Good Friday, University Closed.	

Absence From a Test/Exam

Makeup tests/exams are **NOT** an option without the approval of the instructor. Students who miss a test/exam have up to 48 hours to contact the instructor to ask for a makeup test/exam. It's the instructor's discretion if they will allow a make-up exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. **Once approved by the instructor a makeup test/exam must be written within 2 weeks of the missed test/exam on a day/time scheduled by the instructor. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam** <https://www.ucalgary.ca/registrar/exams/deferred-exams>.

Travel During Exams

Consistent with University regulations, students are expected to be available to write scheduled exams at any time during the official December and April examination periods. Requests to write a make-up exam because of conflicting travel plans (e.g., flight bookings) will NOT be considered by the department. Students are advised to wait until the final examination schedule is posted before making any travel arrangements. **If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam** <https://www.ucalgary.ca/registrar/exams/deferred-exams>. **Students with an exceptional extenuating circumstance (e.g., a family emergency) should contact the Department of Psychology (psyugrd@ucalgary.ca).**

Reappraisal of Graded Term Work: See <https://www.ucalgary.ca/pubs/calendar/current/i-2.html>

Reappraisal of Final Grade: See <http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

Academic Accommodations

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>.

Academic Misconduct

For information on academic misconduct and its consequences, please see the University of Calgary Calendar at <http://www.ucalgary.ca/pubs/calendar/current/k.html>

Instructor Intellectual Property

Course materials created by professor(s) (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the professor(s). These materials may NOT be reproduced, redistributed or copied without the explicit consent of the professor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

Copyright Legislation

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

Freedom OF Information and Protection of Privacy

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary

Student Support and Resources

<https://www.ucalgary.ca/registrar/registration/course-outlines>

Important Dates

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **Thursday, September 16, 2021**. Last day add/swap a course is **Friday, September 17, 2021**. The last day to withdraw from this course is **Thursday, December 9, 2021**.

<https://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html#fall2017>