

PSYCH 3010.01
Research Methods in Psychology I
Spring 2018
Section 1

Tuesdays & Thursdays 9:30 – 10:45
Strickland 204

Instructor: Dr. Lisa M. Bauer

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Please email me from your MU account. University policy requires all email communication between instructors and students be conducted through the student's MU account. When you email me please indicate the course in which you are enrolled.

Office Hours: Tuesdays 3:30 – 4:30pm (except on 2/6, 3/6, 4/3, and 5/1) and by appointment. Please feel free to email me to schedule an appointment. I am happy to meet with you at a time (Monday through Friday) that is convenient for both of us.

Teaching Assistant:

Email:

Location:

Office Hours:

Prerequisites

- ✓ C or better in PSYCH 1000
- ✓ C or better in STAT 1200 (or its equivalent) or concurrent enrollment in STAT 1200

Course Overview and Objectives

This course provides a comprehensive introduction to research methods in psychology. You will learn how to critically evaluate research studies as well as learn how to define research problems, identify variables, state hypotheses, select appropriate samples, design experimental and quasi-experimental studies, and communicate research findings. Understanding and applying the concepts covered in this course will not only prepare you for advanced undergraduate psychology courses (and graduate level courses in a variety of different disciplines) but will also enable you to be a more critical consumer of information presented to you in the real world.

By reading Morling's text and engaging fully in lecture and class activities you will be able to:

- Identify the type of research claim (i.e., frequency, association, or causal) made in both popular and scientific sources.
- Identify and differentiate the basic ethical guidelines that apply to psychological research.
- Identify the different types of variables.
- Assess the reliability of measures.
- Examine construct, statistical, internal, and external validity to evaluate evidence for the different types of claims.
- Identify threats to the validity of research inferences.
- Recognize and evaluate the various methods of experimental and non-experimental approaches to study relationships among variables.
- Indicate which claims each kind of study can support.

- Describe when an experiment can support a causal claim.
- Differentiate between different sampling techniques.
- Identify when and to whom the results of the study can be generalized.
- Critically analyze scientific claims made in popular and scientific sources.

Required Text

Morling, B. (2018). *Research methods in psychology: Evaluating a world of information* (3rd ed.). New York: W.W. Norton. ISBN: 978-0-393-61754-2

The textbook website (<http://wwnorton.com/college/psych/research-methods-in-psychology/>) offers free study tools through StudySpace.

Course Format

Class meetings will consist of lecture, demonstrations, in-class activities, and occasional videos. I will post lecture slides for each chapter on Canvas. I strongly recommend that you print out the slides prior to class. I recommend that you take notes on the slides for several reasons. First, it is difficult for me to present our class material at a pace that will satisfy all of you. If you have the slides, you will not feel the need to write everything down on them. Rather, you can focus on taking notes on the information that is presented in class that is not provided on the slides (e.g., definitions, examples, demonstrations). Second, research has shown that trying to write down everything on the slides as well as what I say verbatim is not a good learning strategy. If you have the slides, you can listen carefully and write down important examples (in your own words) to help you study later.

Canvas

I will be posting announcements and course content on Canvas. To access Canvas, go to <https://courses.missouri.edu/>. Under the course login, select Canvas; then, enter your PawPrint and password. If you are having difficulty logging in to the course or you do not see the course listed; please contact the DoIT Help Desk at help.missouri.edu by phone at 573-882-5000.

Use of Electronic Devices

While laptops and tablets are allowed in class for note-taking purposes, I reserve the right to ask you to put away any electronic devices (including cell phones) if they are distracting others (e.g., your classmates, your professor, guest speakers). Please place all electronic devices on silent mode prior to the beginning of class, and refrain from browsing the web or messaging during class time. In order to ensure a supportive learning environment, you may not record our class meetings (unless you have a documented accommodation) and you may not take pictures of your classmates or your professor during class. Please see additional policies on electronic/digital recordings on page 6 of this syllabus.

Based on research, I encourage you to take notes without using electronic devices (e.g., <http://www.sciencedirect.com/science/article/pii/S0360131506001436>; <http://www.sciencedirect.com/science/article/pii/S0360131512002254>; <http://pss.sagepub.com/content/early/2014/04/22/0956797614524581.short>).

GRADING

Exams (300 possible points; 75% of your grade)

There will be four exams. Exams will cover information presented in class (e.g., class notes, class demonstrations, movies), information from the text, and any additional assigned readings. The exams will consist of multiple-choice questions. Each exam, including the comprehensive final, will be worth 100 possible points. Only your top three exam grades will be counted toward your grade in the course. So, if you are happy with your grades on the first three exams, you may choose to skip the final exam, without it affecting your course grade. If you miss or perform poorly on one of the exams, rest assured that it will not be counted toward your grade for the course, assuming you've completed and scored better on the remaining three exams. Due to this flexibility, no make-up exams will be administered. The best way to study for the exams is to make sure you know and understand your class notes and are able to apply the information to different scenarios. You should also make sure you read and understand the information in your textbook. Study early and often. You should also consider creating your own study materials, making your own examples for concepts, testing yourself often (e.g., create your own quiz/exam), and forming/joining a study group that stays on task. You may also want to answer the questions at the end of each chapter and use the online study tools (<http://wwnorton.com/college/psych/research-methods-in-psychology/>). If you have any questions about the class material, please feel free to stop by during my office hours or the TA's office hours. I encourage you to stop by either my office hours or the TA's office hours to go over the questions you missed on the exam.

Classroom Activities (40 points; 10% of your grade)

Throughout the course of the semester, I will ask you to actively participate in class. In order to increase classroom discussions and make sure you understand the assigned readings, I will provide several in-class activities. To prepare for the activities, you should read all assigned readings (e.g., journal articles, textbook), review your class notes, and complete any homework assignments. All reading assignments will be announced in class and posted on Canvas. It is my hope that the in-class exercises will help illustrate and help you apply the concepts covered in class and in your text. Over the course of the semester there will be 12 in-class assignments. In order to receive a grade on the assignment (0 – 4 points), you must be present in class. If you are not in class, you cannot receive points for an in-class activity. Twelve (12) activities will take place throughout the semester. Each assignment will be worth 4 points. If you are present for 11 or 12 of the activities, your points for those activities will be considered extra credit points. That is, you can earn up to 48 possible points (4 x 12). Due to the number of classroom activities, questions about the activity and/or a grade on the activity *must be* emailed to the professor and the teaching assistant *within 2 weeks* of the date that the classroom activity grade was posted on Canvas. Failure to inquire about an in-class activity grade within the two-week time period indicates that you accept the grade posted on Canvas as being accurate.

Homework Assignments: InQuizitive (60 possible points; 15% of your grade)

There is an introductory assignment and three sets of homework assignments required for this course. These homework assignments are completed online in InQuizitive, a digital resource connected with your textbook. Taken together, these assignments are worth a total of 60 possible points (15%) of your grade. To register and get started click on the Canvas Module labeled "Auto Access" and then on the "InQuizitive" link. These homework assignments are designed to give

you an idea of what you do and do not know before the exam. Therefore, they will help you understand the course material and prepare for the exams. Due dates are listed on the Tentative Course Schedule in this syllabus. Note that each homework assignment includes multiple chapters that have the same due date. These sets of chapters correspond to the chapters being covered by each exam (for example, Chapters 1- 4 are covered on Exam 1, so the homework activities for these chapters are all due on the same date). To maximize learning and recall, you should consider completing the assignments prior to the lecture or shortly after the lecture in which the chapter is covered. However, you do have until the due date to complete the set of assignments. Due dates are set a few days prior to each exam date, but you can re-enter for practice after the due date has passed (no grade is assigned after the due date). Chapters without due dates are not covered in class; there is no homework assignments for those.

For technical help with InQuizitive, go to <http://support.wwnorton.com>. Open a help desk ticket and provide them with your school (University of Missouri, Columbia), the instructor's name (Bauer), and your section (1). They are very helpful and responsive.

Due dates and policies: All homework assignments must be completed by the date and time indicated on the Tentative Course Schedule and InQuizitive. There are no "make-ups" for homework. Assignments are available for several weeks, and it is your responsibility to complete all activities within the allotted timeframe. If you have problems completing your homework, you must contact the instructor to report the problem at least 2 days before the deadline.

Grading Summary

Exams	= 300 points (100 points x best 3 out of 4 exam grades)
Classroom Activities	= 40 points
Homework Assignments	= 60 points
TOTAL	= 400 points

I reserve the right to change the nature, number, and weights of the course requirements. Any changes will be announced in class and posted on Canvas before they take effect.

Grading Rubric

Of the 400 possible points available during the semester, your point total will earn you a grade based on the following percentages.

LETTER GRADE	TOTAL PERCENTAGE
A+	98.00 – 100.00
A	93.00 – 97.99
A-	90.00 – 92.99
B+	87.00 – 89.99
B	83.00 – 86.99
B-	80.00 – 82.99
C+	77.00 – 79.99
C	73.00 – 76.99
C-	70.00 – 72.99
D+	67.00 – 69.99
D	63.00 – 66.99
D-	60.00 – 62.99
F	Below 60.00

Grading Policies

Final grades are determined by the points *you earn* in the class. Percentages are calculated out to two decimal places and will **not** be rounded up at any time in the class or in the submission of final grades. *It is to your advantage to attend class regularly and to study throughout the semester so you are not in the position at the end of the semester of missing the next higher grade by less than ½ a percent.* In the event that I feel any assignments or exams were too difficult, the grades will potentially be curved in favor of the entire class (by giving everyone extra points). Assignment and exam grades will never be curved against you. Because exam scores are adjusted immediately after each exam and applied to all students taking the exam and because I offer an optional cumulative final to replace your lowest test score, **no other grade adjustments are made. You must earn a C or higher in this course to enroll in PSYC 3020.**

OTHER POLICIES AND RESOURCES

Respect Others

Disrespectful behavior of any kind (for example, text messaging, searching the web, talking to friends during class, being rude to others) will not be tolerated and may result in the lowering of your grade. You will receive one warning. After the initial warning, you will receive a 5-point penalty for each occurrence thereafter.

Academic Honesty

Academic honesty is fundamental to the activities and principles of the University. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort (e.g., cheating on an exam, copying someone's homework assignment, plagiarizing, writing someone else's name on an in-class activity) to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as an extremely serious matter. Consequences for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. For more information about Academic Integrity and the honor code that all students must take, see the Office of Academic Integrity website (<https://oai.missouri.edu/>). When in doubt about plagiarism, paraphrasing, quoting or collaboration, please ask me.

Electronic/Digital Recording

Lectures may **NOT** be recorded on video or cell phones. You may **NOT** take pictures during class. That is, you may not take pictures of the lecture slides, your classmates, your TA, and/or your professor during class. My lectures are protected by state common law and federal copyright law. Course materials prepared by the instructor (e.g., lectures, homework assignments, quizzes, exams), together with the content of all lectures and review sessions presented by the instructor, are the property of the instructor. Therefore, you may **NOT** upload these materials to online sites (e.g., Course Hero, Study Blue). Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited. University of Missouri System Executive Order No. 38 lays out principles regarding the sanctity of classroom discussions at the university. The policy is described fully in Section 200.015 of the Collected Rules and Regulations. In this class, students may not make audio or video recordings of course activity, except students permitted to record as an accommodation under Section 240.040 of the Collected Rules. All other students

who record and/or distribute audio or video recordings and photographs of class activity are subject to discipline in accordance with provisions of [Section 200.020](#) of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters. Those students who are permitted to record are not permitted to redistribute audio or video recordings of statements or comments from the course to individuals who are not students in the course without the express permission of the faculty member and of any students who are recorded. Students found to have violated this policy are subject to discipline in accordance with provisions of Section 200.020 of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters.

Writing Center

The Writing Center is located in the Student Success Center. This center helps students polish and hone their writing skills regardless of their level of writing. You can learn more about the writing center by visiting: <https://writery.missouri.edu/>.

For Students with Disabilities

If you anticipate barriers related to the format or requirements of this course, if you have emergency medical information to share with me, or if you need to make arrangements in case the building must be evacuated, please let me know as soon as possible. If disability related accommodations are necessary (for example, a note taker, extended time on exams, captioning), please register with the Office of Disability Services (<http://disabilityservices.missouri.edu>), S5 Memorial Union, 882-4696, and then notify me in person and via email of your eligibility for reasonable accommodations. If you have flexible attendance and need to miss a class, it is your responsibility to email me prior to your absence. Only notification prior to your absence will enable you to complete an in-class activity (as long as it is completed within 3 days of the initial activity) or a quiz (as long as it is completed within 2 days of the quiz date). For other MU resources for students with disabilities, click on "Disability Resources" on the MU homepage.

Notice of Nondiscrimination

The University of Missouri System is an Equal Opportunity/ Affirmative Action institution and is nondiscriminatory relative to race, religion, color, national origin, sex, sexual orientation, age, disability or status as a Vietnam-era veteran. Any person having inquiries concerning the University of Missouri-Columbia's compliance with implementing Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans With Disabilities Act of 1990, or other civil rights laws should contact the Assistant Vice Chancellor, Human Resource Services, University of Missouri-Columbia, 130 Heinkel Building, Columbia, Mo. 65211, (573) 882-4256, or the Assistant Secretary for Civil Rights, U.S. Department of Education. For more information, see: <http://diversity.missouri.edu/resources/equity.html>.

Intellectual Pluralism

The University community welcomes intellectual diversity and respects student rights. Students who have questions or concerns regarding the atmosphere in this class (including respect for diverse opinions) may contact the Departmental Chair or Divisional Director; the Director of the *Office of Students Rights and Responsibilities* (<http://osrr.missouri.edu/>); or the *MU Equity Office* (<http://equity.missouri.edu/>), or by email at equity@missouri.edu.

GENERAL ADVICE

1. Read the assigned readings and take notes. Reading the assigned materials before coming to class will enable you to participate more fully in classroom discussions and in-class activities. Additionally, reading ahead of time will help you know whether or not you understand the material. If you do not understand the material, you can see whether or not our class discussion helps. You may also ask relevant questions during the lecture. If you still have any questions, please stop by during my office hours.
2. Attend class and participate in class. Your attendance is strongly encouraged. Throughout the course of the semester, I will ask you to actively participate in class. In order to increase classroom discussions and make sure you understand the assigned readings, I will provide several in-class activities. It is my hope that the in-class exercises will help illustrate and help you apply the concepts covered in class and in your text. The in-class activities also serve to help you practice retrieving information which is beneficial in learning the information (e.g., Roediger, Putnam, & Smith, 2011). In order to complete an in-class activity, you must be present in class. Regardless of attendance, you are responsible for all announcements made, policies set, and materials covered in class. An absence does not mean that you can turn in any assignments late, make up exams, or make up classroom activities. If you miss a lecture, please ask your classmates for the notes.
3. Take good notes. Make sure you are actively taking notes in class. In addition to making sure you have the information that appears on the PowerPoint slides, you should also write down the examples we discuss in class. Hopefully, these examples will give you additional ways to think about the material. While laptops and tablets are allowed in class for note-taking purposes, I reserve the right to ask you to put away any electronic devices (including cell phones) if they are distracting others. Based on research, I encourage you to take notes without using electronic devices.
4. Complete the required homework assignments. The assignments are designed to make sure you understand the material covered in class and in your textbook. They are designed to help you assess (before you take an exam) how well you understand the material covered in class and in your assigned readings. It is in your best interest to work on each chapter assignment as we are discussing the chapter in class.
5. Study early and often. As we will discuss in class, research (e.g., Ebbinghaus, 1885; Benjamin & Tullis, 2010) shows that you will retain information better if you study the material over a period of time rather than cramming. Let's say you plan on studying for 12 hours. You are more likely to retain the information if you study for 2 hours a day for 6 days (spaced learning) than for 6 hours over 2 days (massed learning) or for 12 hours the night before an exam (massed learning/cramming). Research also suggests that you will be able to better understand and retain the information if you: create your own study materials (e.g., study guides), use concrete examples, make your own examples for concepts (e.g., use elaboration – make connections and apply the concepts to your own experiences), test yourself often (e.g., practice retrieving, create your own quiz/exam), use dual coding (combining text with imagery), and use interleaving (for more information see: <http://www.learningscientists.org/downloadable-materials/>). I also recommend answering the review questions and completing the learning activities that are

provided in each chapter of your textbook. You can also use the online study tools (<http://wwnorton.com/college/psych/research-methods-in-psychology/>). If you have any questions about the class material, please feel free to stop by during my office hours.

6. Schedule an appointment to meet with me if you need help. Do not wait until the end of the semester. You will enjoy the class much more if you understand the material.

TENTATIVE COURSE SCHEDULE

This schedule will be followed as closely as possible, but may vary depending on the pace of the class. **In order to make sure you understand the material, please complete the reading assignments prior to our class meeting.** Changes in readings and/or topics will be announced as far in advance as possible. **Journal articles will be assigned as we approach the class period in which we will discuss them.** Therefore, they do not appear in this tentative schedule. Assigned journal articles will be posted on Canvas.

WEEK	DATE	DAY	TOPIC	READING ASSIGNMENT
1	1/16	T	Introductions Syllabus Psychology Is a Way of Thinking (1)	Chapter 1
	1/18	R	Psychology Is a Way of Thinking (1)	Chapter 2
2	1/23	T	Psychology Is a Way of Thinking (1) Sources of Information (2)	
	1/25	R	Sources of Information (2)	
3	1/30	T	Sources of Information (2) How to Use InQuizitive Due by 11:59 pm	Chapter 3
	2/1	R	Sources of Information (2) APA Format Research Interrogation Tools (3)	
4	2/6	T	Research Interrogation Tools (3)	Chapter 4
	2/8	R	Research Interrogation Tools (3) Ethical Guidelines (4)	
5	2/13	T	Ethical Guidelines (4)	
	2/15	R	Ethical Guidelines (4) Homework #1 Due by 11:59 pm CST	
6	2/20	T	Ethical Guidelines (4) & Plagiarism	
	2/22	R	Exam #1 Chapters 1 – 4, and all supplemental materials (e.g., notes, videos, articles)	Chapter 5
7	2/27	T	Identifying Good Measurement (5)	Chapter 6

	3/1	R	Identifying Good Measurement (5) Surveys & Observations (6)	
8	3/6	T	Surveys & Observations (6)	Chapter 7
	3/8	R	Sampling (7)	Chapter 8
9	3/13	T	Sampling (7) Bivariate Correlational Research (8) Multivariate Correlational Research	
	3/15	R	Bivariate Correlational Research (8) Multivariate Correlational Research Archival Research, Case Studies, & Developmental Studies (ACD) Homework #2 Due by 11:59 pm CST	
10	3/20	T	Archival Research, Case Studies, & Developmental Studies (ACD)	
	3/22	R	Exam #2 Chapters 5 – 8, and ACD, & all supplemental materials (e.g., notes, videos, articles)	Chapter 10
11			SPRING BREAK	
12	4/3	T	Simple Experiments (10)	
	4/5	R	Simple Experiments (10)	Chapter 11
13	4/10	T	Simple Experiments (10) More on Experiments (11)	Chapter 12
	4/12	R	More on Experiments (11) Experiments with More than One IV (12)	Chapter 13
14	4/17	T	Experiments with More than One IV (12)	
	4/19	R	Experiments with More than One IV (12) Quasi-Experiments & Small- <i>N</i> Designs (13)	Chapter 14
15	4/24	T	Quasi-Experiments & Small- <i>N</i> Designs (13) Replicability, Generalization, & the “Real” World (14)	
	4/26	R	Quasi-Experiments & Small- <i>N</i> Designs (13) Replicability, Generalization, & the “Real” World (14) Homework #3 Due by 11:59 pm CST	
16	5/1	T	Replicability, Generalization, & the “Real” World (14)	
	5/3	R	Exam #3 Chapters 10 - 14 and all supplemental materials (e.g., notes, videos, articles)	

17	5/9	W	OPTIONAL FINAL EXAM: Wednesday, May 9 10:00 – 11:15 am The final takes place in the regularly scheduled classroom. You will have the same amount of time to complete the optional final as you had for the first 3 exams (1 hour and 15 minutes).
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I will do my best to present the material as clearly as possible. If anything is unclear, please ask me to clarify the information. I will be available during my office hours (and am more than willing to make a separate appointment with you) to answer any questions that you may have.

Please Note: This syllabus is subject to change. Any changes will be announced in class and posted on Canvas. I reserve the right to change the nature, number, and weights of the course requirements. Any changes will be announced in class and posted on Canvas before they take effect.