

PSYCHOLOGY 241: Methods of Inquiry • Summer 2009 •

Course Instructor

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Office Hours: Email or chat work best. Other appointments can be arranged.

“SOMEWHERE, SOMETHING INCREDIBLE IS
WAITING TO BE KNOWN.” -Carl Sagan

COURSE DESCRIPTION:

This course is an introduction to experimental methods in psychology. You will learn the details associated with planning, executing, explaining, and critiquing research. You will also learn about experimental design, statistics, ethical standards of research, and writing up a report.

As consumers of research from psychology and other scientific disciplines, you need to be aware of the strengths and limitations of “evidence” presented by the media. The material covered in this course should allow you to assess research findings as well as design studies of your own, collect and analyze data, and write an APA style report.

TEXTBOOK:

Required:

McBurney, D. H. & White, T. L. (2008). *Research Methods. 8th Edition*. Belmont, CA: Wadsworth, Cengage Learning.

Recommended:

Strunk, W. & White, E. B. (1999), *The Elements of Style*. Boston, MA: Longman.

Note: The entire contents of this style manual can be found for free at: <http://www.bartleby.com/141/>

LEARNING OUTCOMES (GOALS OF THIS COURSE):

Through this course you will learn to:

- become an informed consumer of research involving a variety of techniques common to research in psychology.
- develop and refine skills in critical thinking, analytical reasoning, and problem solving, especially as it relates to psychological research and interpreting published findings.
- develop skills necessary for conducting scientific research. This includes learning how to (1) develop testable hypotheses about psychological processes, (2) analyze data, (3) interpret data, and (4) report findings.
- become well-versed in APA style of writing to properly compose and critically analyze research reports.

EVALUATION OF LEARNING OUTCOMES:

□ Discussion Board Participation (30%)

Since there is no 'lecture' to attend, you will be posting frequently to the message board. This will require you to not only create your own posts, but also to comment on your colleagues' posts. There will be a designated discussion for each chapter. Everyone must **create one** thread and **comment on at least one** other thread. Since the continuity and quality of this section of the course rests largely on your shoulders, it is essential to create these posts early. For the thread you create, you must follow this format:

- Your thread must include two key parts: **1)** what you consider to be the two most important aspects covered in the chapter. At the end of each chapter, there are numbered bullet-points that you may use to guide you through this. I am really looking for you to elaborate on these ideas while citing support from the book. Be prepared to defend what you write because I may question why you chose the topics you did as most important; **2)** something new related to the material you read. I want you to come up with ideas that you observe in your life or come across in a newspaper, magazine, internet, conversation, etc. I encourage you to include links to websites or attach material that might be relevant.

When I start each topic, I will compose a post of my own to show you what I'm looking for. While the purpose is to engage in meaningful discussions with each other, you may also comment on my posts.

Your participation in other discussions will also count towards this part of your grade. This may include invited discussions based on an assigned, supplemental reading, discussion based on specific content or other discussions on the board.

□ Daily Check-ins (10%)

You have something important to **give** and **get** from every class outline. Therefore, I expect you complete all of the assigned reading and assignments on time. On almost every day of this shortened term, you will be required to complete a "Daily Check-In". This will usually consist of some short answer questions based on the reading, discussion, or material from the previous day. To ensure that everyone is staying on task, these will have a strict deadline the day they are assigned. This will be graded on a turn-in type basis, but you will not receive credit unless you put a solid effort into your response. I will give extra feedback during the beginning of the term to inform you if you are on the right track.

□ Lab Assignments (25%)

There are a variety of projects and exercises that you will work on over the course of the semester. Most of these exercises will be related to the experiment you will be conducting in small groups as your final project (see below). These assignments will be discussed in more detail in the upcoming weeks.

□ Quizzes (10%)

As the primary objective way of measuring your understanding of the material, there will be a quiz following every chapter of the book. The quizzes will be available from the day the reading is assigned until that following Monday. Quizzes will be short (~10 questions) and will cover the material from the book. To make things fair, you are allowed to use your book and notes for these quizzes.

□ **Final Research Project (25%)**

Throughout the semester, you and a small group of classmates will research, design, conduct, and write-up an experiment. At the end of the semester, each group member will compose a research report in APA format explaining the project and results. The research project will be broken down into smaller parts to make the process easier and less stressful for you.

Participation in Research:

You may earn up to 8 extra points toward your course grade by participating in research opportunities available through the psychology department. One hour of research participation equals one extra credit point. If you sign up for a study, you must show up for it or cancel at least 24 hours in advance of your appointment. If you fail to show up, or if you fail to cancel within 24 hours of your appointment, 1 point may be deducted from your final course grade. Research participation opportunities will be announced in class. The Sona system will be available during the summer session and detailed instructions will follow.

Grading:

Your grade in this course will be based on the following point distribution:

Discussion Board Participation:	120	points
Daily Check-ins:	40	points
Lab Assignments:	100	points
Quizzes:	40	points
Final Research Project:	100	points
Extra Credit:	8	points

Total: 400 points

A	376-400	C	296-307
A-	360-375	C-	280-295
B+	348-359	D+	268-279
B	336-347	D	256-267
B-	320-335	F	Below 256
C+	308-319		

□ **Extensions and Missed Assignments:** If an emergency, significant illness or other personal issue (e.g., family death) prevents you from submitting an assignment or keeping up with the course, please contact me as soon as possible. Students often wait to communicate with their instructor until many deadlines have passed. This delay often makes it more difficult for the instructor to help the student stay on track. Missed assignments for any reason other than the extenuating circumstances described above will not be accepted. Please note that skipping an assignment will significantly harm your grade.

□ **SPECIAL ARRANGEMENTS:** If you need special arrangements due to a disabling condition, please let me know as soon as possible so accommodations can be made that ensure that you are still able to master all of the learning outcomes.

Things to consider...

My role as the instructor of this course:

My role is not to simply upload material to the website and passively 'facilitate' the daily activities. I am here to not only teach you the material, but to also help you when concepts are unclear. After I get an idea of when the majority of you are available, I will be 'online' during a specific time period each day. This may fluctuate week by week in order to give more of you a chance to chat with me. During those times, I will be available for live chat, group meetings and to answer any questions and comments. In addition to that, you are more than welcome to email me with specific questions. I usually respond to emails very quickly unless it is during an odd hour or over the weekend.

There will be an area of the message board devoted to discussion regarding the course material. I ask that you first post your question to that area, which I will be checking and contributing to regularly. If you email me a question that I think will benefit the entire class, I will post it for everyone to read (while keeping the author anonymous). I am here to help you learn, so please do not be shy about asking me questions!

"Attendance" Policy:

Be advised that one class during the summer session is equal to one week during the fall or spring semester. Because the information that you learn in this course is cumulative and you will collaborate often, and your collaborators rely on your input and participation, daily work comprises a significant part of your grade.

Since this is an online course, there is no designated lecture time. However, class sessions during a typical summer course usually last 2.5 – 3 hours, three times a week. Therefore, the course is designed with the notion that you will spend that amount of time actively contributing to the course (in addition to other activities like reading, labs, etc). The calendar below as well as the assignments and quizzes will mimic a classroom type course so you will get the same quality of instruction with the added benefits of the online community.

Each week I will provide you with an outline of the topics we will cover and the work that needs to be completed. The key to being successful in this course is to stay on task and complete all of the work on time.

But wait, it's an online course, how do I expect to learn without ever seeing the instructor or any other students?!

An online course affords many opportunities that are not possible with a traditional classroom-based course. The biggest advantage in an online course rests in you, the student. Students in this course may be located anywhere in the world and may offer very different experiences and opinions conducive to a diverse learning environment. What this course lacks in face-to-face discussion, it makes up for in technology. You will be contributing to discussions regularly, offering your opinions, and being responsive to others. The end product is a learning environment that allows the students to not only learn from the instructor and the material, but also from each other. I will be there to guide you through all the way, so nobody will get lost or left behind.

There are many advantages to online learning that are not always components of traditional classroom courses. Students can often negotiate parts of online courses at their own pace, use tools designed to appeal to a variety of different learning styles, collaborate and communicate with their peers and instructors in different ways, and be at the forefront of new technology. However, there are also some potential challenges that students need to be aware of.

Internet Literacy- Since this is a course that is taught exclusively online, it is expected that you are comfortable using a computer and the Internet. This entails being able to log in to the course website, navigate through websites (taking quizzes, discussion boards, etc.), navigate the Internet to websites, and frequently use email. If this is going to be a problem for you and you need any extra assistance, please contact me early in the semester and I will help you with it. The ‘online’ aspect of this course should not be intimidating to anyone.

If you’re having trouble or technical issues with Blackboard Vista 4, please contact the Office of Information Technologies (OIT). You can send OIT an email at amherstsupport@umassonline.net or call 1-800-569-6505. You can also contact support via live text chat by visiting the UmassOnline homepage at <http://www.amherst.umassonline.net/index.cfm> and clicking on the link, “live text chat”.

Participation- The success of this course rests largely in your hands! I strive for informal, interactive class environments in which questions are routine, and hope to have enjoyable and provocative discussions. The flip side of this is that you need to take responsibility for participation. I expect you to be ready to ask questions and discuss the material. Participation and the message boards are significant parts of your grade, so it will be impossible to get a good grade without contributing regularly and thoughtfully.

Respect- Always be respectful of your peers and the instructor. Multiple points of view are welcome and expected, but don’t launch an attack if you don’t agree with a comment or perspective. You can disagree or say something that’s controversial without being disrespectful. And please remember that it is easy for on-line communications to be misinterpreted, so always evaluate and reevaluate your posts before they are public.

I still don’t understand how this course will be beneficial if we can’t even talk to one another? This is where discussion boards come in! A large portion of this course will hinge upon our ability to effectively communicate through the discussion board. You will be required to post regularly, as well as to respond to your colleagues’ topics. Instead of being put on the spot for opinions or responses to questions as with a typical classroom, you will have the opportunity to post well thought-out responses.

Communicating in online courses requires more time, thoughtfulness and effort than traditional classroom courses. In a traditional course you hear a question, think about it, raise your hand and volunteer the answer. In an online course you read a question, think about it, type an answer, think about what you’ve typed, edit what you’ve typed, and *then* submit your answer. This can take a long time depending on how quickly you read, think and type! Another challenge with communicating online is accurately conveying emotion and emphasis, so you need to be thoughtful in how you present yourself. If you want to emphasize something, use ALL CAPS. If you want to convey emotion, feel free to use signals of emotions (a.k.a., emoticons) such as :), ☺, or :(. Please consider all of these issues and put in the effort needed to communicate as effectively as possible.

Online courses can be trouble for procrastinators! Do you check your e-mail repeatedly when working on the computer? Do you know more about a friend through Facebook/Twitter than you ever really wanted to? Do you start a paper the night before it’s due? Are you a top scorer in FreeCell, Minesweeper and/or Solitaire? If you answered yes to any of the above questions, you may have a problem with procrastination! Working independently is a large part of an online course, so putting off the work until the last minute will lead to big trouble! If you’re a procrastinator (you know who you are), schedule frequent work sessions with short breaks, split assignments into smaller components, tack a copy of the semester schedule on the wall in front of your workspace, on your refrigerator, on the bathroom mirror - whatever you have to do to get the work done without procrastinating!

Creating community takes a little more time. Online learning can feel a bit isolating without the face-to-face interactions you have in a traditional course. There will be many opportunities to collaborate with your peers and communicate with me, so I hope we’ll be able to build a community quickly. If you’re still feeling detached from the course, please let me know and we’ll experiment with new ways of getting to know each other.

Schedule of Readings and Topics*^

Part 1: The basics

Tuesday, July 14th

Psychology and Science
Reading: Chapter 1 pages 1 – 27

Wednesday, July 15th

Variables
Reading: Chapter 5 pages 119 – 136
Name that Variable!!

Thursday, July 16th

Developing a Research Question
Reading: Chapter 2 pages 33 – 45
PsycINFO Scavenger Hunt; finding articles; coming up with questions;
Basic versus applied research.

Tuesday, July 21st

Writing in Psychology
Reading: Chapter 4; pages 77 – 112
Introduction to APA style of writing; Article critiques; writing a reference section

Wednesday, July 22nd

Ethics in Research
Reading: Chapter 3 pages 49 – 69
Academic honesty and plagiarism in science; putting together an introduction.

Thursday, July 23rd

Validity
Reading: Chapter 7 pages 173 – 187
Don't be invalid!

Part 2: Nonexperimental Research

Tuesday, July 28th

Nonexperimental Research, Part 1: Observational, Archival, and Case Study Research

Reading: Chapter 9 pages 219 – 238

Designing a scale; writing good survey questions

Wednesday, July 29th

Nonexperimental Research Design

Introduction to survey composition and implementation; Designing web-based surveys

Thursday, July 30th

Nonexperimental Research, Part 2: Survey Research

Reading: Chapter 10 pages 245 – 266

Data collection and data reduction

Tuesday, August 4th

Tabular and Graphical Description of Data

Reading: Chapter 6 pages 141 – 167

A glorious return to statistics!!

Part 3: Experimental Research

Wednesday, August 5th

Control

Reading: Chapter 8; pages 193 – 216

Being a control freak!; Introduction to experimental design;

Research proposals and writing a method section.

Thursday, August 6th

True Experiments, Part 1: Single-Factor Designs

Reading: Chapter 11 pages 175 – 290

Designing and implementing a true experiment; materials production and stimulus generation.

Tuesday, August 11th

True Experiments, Part 2: Factorial Designs

Reading: Chapter 12 pages 297 – 317

Data collection and data reduction.

Part 4: Bringing it all Together

Wednesday, August 12th

TBD

Data analysis and interpretation; writing a results section.

Thursday, August 13th

TBD

Learning from your mistakes! Preparing the final document.

Tuesday, August 18th

Single-Subject Experiments

Reading: Chapter 13 pages 323 – 340

More topics in psychological research. Preparing a presentation.

Wednesday, August 19th

Quasi Experiments

Reading: Chapter 14 pages 345 – 370

Celebrate the birth of new scientists!!

^Each reading and topic is assigned for that specific day.

*This syllabus is a guide for how the course will go but is subject to change.

Mandatory Disclaimer

Plagiarism

Plagiarism is representing someone else's work as your own. This includes copying information from ANY website without proper citation, copying someone else's paper, buying a paper, or letting someone copy your work. In this course, you are expected to talk to your classmates about the course material but NEVER to share in the writing of papers, nor are you to use papers written by previous students in this course. Plagiarism will result in a grade of F and a report will be filed with the Academic Honesty Board. This penalty will be enacted both for the person who copies and anyone who allows copying to occur.

Plagiarism will be discussed in class and you will be expected to understand what constitutes plagiarism. You are expected to understand your sources sufficiently well to write your own paper *in your own words*. However, you should cite the sources of ALL ideas in your papers even when you are paraphrasing a source.

The Department policy states all students are expected to adhere scrupulously to the University policy concerning academic honesty, which is found in "Undergraduate Rights and Responsibilities" at the following web site:

http://www.umass.edu/dean_students/code_conduct/acad_honest.htm

Students should be aware that suspect assignments (e.g., those without drafts, without works cited pages, or with large departures in style) will be submitted to Turnitin and/or MyDropBox by the instructor for the purpose of detecting possible plagiarism. Submitted assignments will be included in the UMass Amherst dedicated databases of assignments at Turnitin and/or MyDropBox. [the answer to the quiz question and the name of my dog is Colby] These databases of assignments will be used solely for the purpose of detecting possible plagiarism during the grading process during this term and in the future. Students must provide an electronic copy of their assignment to the instructor for submission to one or both of the services when plagiarism is suspected, in order to receive a grade on the assignment and to avoid possible sanctions.