

Psychology 486
Comprehensive Research Project
Fall 2014

TuF 1:00 – 2:20
LBC 211

Instructor: Rachael Reavis
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Office: LBC 305
Office Hours: drop in and by appointment

Course Readings:

Required: 6th Edition of the APA manual

Additional course documents on Moodle

Course Description & Objectives:

This course is really about you and what you have learned as a psychology major. It is an opportunity for you to explore a specific research question of your own making. Even if you are not going into a research field, you will gain an important perspective on how research is really conducted that will benefit you in whatever career you find yourself. Research is exciting and fun, but it is also hard work. Take your topic selection seriously, because you will be spending many hours across several months immersed in your topic. If you aren't fascinated by your topic in the beginning, you aren't likely to be by the end. During the course of the semester you will demonstrate and improve upon all the skills you have acquired during your years as an Earlham psychology major, culminating in a final paper and presentation to the department. If all goes well, you will also have contributed to our understanding of psychological phenomena and processes.

Specific Course Goals

By the end of the semester, you should be able to:

1. Design and implement a research study.
2. Analyze data and report results in written and spoken work.
3. Understand the role of research in psychology, and identify its strengths and limitations.
4. Communicate effectively with a variety of audiences.
5. Understand psychology as a science.
6. Critically evaluate existing work.
7. Provide helpful, but constructive, feedback to work in progress.

Psychology Department Goals

The following psychology department goals (based on the APA guidelines) are especially relevant for this course.

1. Research Methods in Psychology
2. Critical Thinking Skills in Psychology
3. Application of Psychology
4. Values in Psychology
5. Communication Skills
6. Information and Technological Literacy
7. Communication Skills

Earlham General Education Goals:

The following general education goals are especially relevant for this course.

1. Close and critical reading, thoughtful reflection, ready discussion, and cogent writing.
2. Increased adeptness in thoughtfully considering texts of all sorts, whether singly or in comparison with one another.
3. Gaining an understanding of the scientific process through direct experience.
4. Systematic understanding and overt application of quantitative and analytic reasoning.
5. Practice and discipline in group learning. This includes thoughtful community membership.
6. The ability to gather information from print and electronic sources and critical capacity to evaluate the data gathered and the ideas encountered.

Course Credit Explanation

Following the successful completion of PSYC 486, you will earn three course credits. The federal expectation of each credit hour is one hour of class per week, plus *a minimum* of two hours of work per week outside of class (<http://www.ecfr.gov/cgi-bin/text-idx?rgn=div8&node=34:3.1.3.1.1.1.23.2>). This means a minimum of nine hours of work devoted to a three-credit class each week. Many classes will require more work and preparation outside of class, and PSYC 486 is likely to be one of those. Anticipate spending an *average* of 10-15 hours per week devoted to your senior research project.

Evaluation:

Your final grade will be based largely on your final paper and presentation, but also on your ability to meet deadlines, your ability to respond appropriately to criticism, and your participation in the class, which will be taken very seriously.

1) Effort.

- **Attendance.** Attendance will be taken every day. Some days will be designated as “independent work” days, but **you are still expected to come to class and check in.** Doing a full and well-executed research project in one semester is a significant task, and it is easy to fall behind and hard to catch up. Although you are expected to come to class every day, if you miss one class period, your grade will not suffer. However, each class period missed after that will result in your **final grade being lowered by a full percentage point.** If you are hospitalized or have a death in your immediate family, we will work together to determine whether you can complete the course or should take an incomplete.
- **Participation.** You will be part of working groups of 3-4 people. You will be brainstorming about ideas, helping others to refine their ideas, reading each other’s drafts, providing constructive feedback, responding constructively to feedback, and other supportive endeavors. Your participation grade will be based on what I observe, a self-evaluation of your performance as a group member, and an evaluation from each of your group members about your contributions.
- **Drafts.** Research and dissemination (writing and presenting) require a lot of drafting. The first thought you think or the first draft you write will not be polished. This is true for novice and seasoned writers alike. Furthermore, draft deadlines help you stay on schedule. If you follow the deadlines in the syllabus, then you will have no trouble completing your project in time. If you don’t, then your grade will suffer and you will run the risk of not completing your project. The due dates listed are the last possible due dates, but I will read drafts earlier if you turn them in, and I will read multiple drafts. Part of your grade will also be based on your ability to incorporate (or thoughtfully explain why you are not incorporating) both my feedback and the feedback of your working group. Failure to respond to or incorporate feedback will negatively affect your grade.

- **Effort** will account for **10% of your final grade**, not including any penalties for attendance problems. There are two important aspects to notice. First of all, displaying very little effort during the semester can have a large impact on your grade (over a letter grade). However, the bulk of your final grade will be based on the final product of your paper and presentation.

- 2) Final Paper.** Your final paper will be graded for the design of your project, conceptual and theoretical soundness of your project, writing (including clarity and grammar), and APA style. Your paper grade will be based on my evaluation (**25% of your final grade**) and the evaluation of your second reader (**25% of your final grade**). To pass this portion of your comps, both your second reader and I need to judge your paper to be at least a C-. See below for the graduation requirement. Please note that excellent papers require many, many drafts. I will make suggestions for major problems I see in each draft. Don't be surprised, however, when the next draft also has many suggestions. Although it can be frustrating, this is the nature of the writing process. The more you let me see your work, and the more effort you put into making changes (or justifying why you do not agree with those changes), the better your paper will get. I encourage you to focus not on getting an "A," but on doing the best work that you can.
- 3) Final Presentation.** Your presentation grade will be based on the clarity of your message, the eloquence of your delivery, and the thoughtfulness of your responses to audience questions. Like your paper, presentations require many drafts and new comments and issues will be identified in each draft. Your presentation grade will be based on my assessment (**20% of your final grade**), which will be influenced by your incorporation of suggestions from me and your classmates. The psychology and neuroscience professors present will also assess your performance. These assessments will be averaged and that average will account for **20% of your final grade**.
- 4) Final Grade & Graduation Requirement.** There are two key components to successfully completing this portion of your comprehensive exam in psychology or neuroscience: the final paper and the oral presentation. If you complete both components by the end of the semester and the paper is judged by both your first and second readers as at least a C-, you will have passed this portion of your comprehensive exam. If you fail to complete either the paper or the presentation by the end of the semester you will receive a D- in the course. If this occurs in the fall semester, you will have until the day of enrollment confirmation prior to beginning of the spring semester to satisfactorily complete the course requirement. The grade may be changed at that point from a D-. If you do not complete both components, you will receive an F for the fall semester and will need to re-take senior research in the spring. You may not need to re-do the project.

Grading:

Rachael's assessment of the final paper:	25% of grade	A-: 90-92.9%; A: 93%-99.9%; A+: 100% B-: 80-82.9%; B: 83-86.9%; B+: 87-89.9% C-: 70-72.9%; C: 73-76.9%; C+: 77-79.9% D: 65-69.9% F: < 65%
2 nd reader's assessment of the final paper:	25% of grade	
Rachael's assessment of the final presentation:	20% of grade	
Average of other faculty assessment of final presentation:	20% of grade	
Deadlines/Effort:	10% of grade	

I do not round grades. For example, 79.9999 is a C+, no exceptions. Please note the grading scale—it may be different from other classes you have had.

Office hours etiquette: I am happy to schedule times to meet with you outside of class. I anticipate that all of you will need to meet with me at least once, and many of you will need to meet with me several times. You are welcome to drop in. Please be understanding if I am in my office, but preparing something else. We can pick a time then for you to come back, if that is the case. You can also make appointments with me in class or via email. Please be courteous and arrive on time for your meeting. If you arrive late or do not come (without informing me well in advance), then this takes away from time I could be spending with other students. If you cannot make it to your scheduled appointments, then we may have to limit our meetings to class time and via email. My schedule will also be posted on my door. You can examine it for likely times that I may be in my office. Directly before classes I teach is generally not a good time for meetings.

Email Etiquette:

You are encouraged to contact me via e-mail with any questions that you may have, but I ask that you make sure you have looked for the answer yourself first (on Moodle, in course documents) and that you correspond professionally. We can also use email to schedule a time to chat online or via Skype.

Technology guidelines¹: You need to protect yourself against technology problems. You need to develop work habits that take potential technological problems into account. These habits will serve you in your career.

Technological problems are a fact of life, and are not considered unforeseen issues. (Your dorm falling into a sinkhole would qualify as “unforeseen”). Start early and save often. Always keep a backup of your work. Carbonite and Backblaze are two services that will automatically back your work up into a cloud. Or you can invest in an external hard drive. Or you can email yourself your work.

Computer viruses, lost flash drives, corrupted files, incompatible formats, WiFi connectivity problems – none of these unfortunate events should be considered an emergency. Take the proper steps to ensure that your work will not be lost forever. Learn the locations and operating hours of all the computer labs on campus. Do not procrastinate.

Know the resources on campus for technical problems with connectivity or Moodle. The Help Desk will need time to assist you. Again, don't procrastinate.

Academic Honesty:

All students are expected to conduct themselves with honesty and integrity in this course. The honor code is both a privilege and a responsibility, and you are expected to take it seriously. Suspected infractions, such as plagiarism, fabrication of reports, and cheating will be treated seriously and will be reported. Furthermore, if you are aware of a violation of academic integrity, it is your responsibility to take action.

Learning to think for yourself, assess information judiciously, and speak and write effectively in your own voice is at the heart of a liberal arts education and global citizenship. Treasure and cultivate these skills. Papers and other work, including digital creations, downloaded or copied from other sources, or in which words or ideas belonging to others have been deliberately misrepresented as your own, will receive an automatic F, as they thwart your learning process and damage the integrity of knowledge-discovery. If you have questions about how to find, integrate, and properly cite sources, never hesitate to ask for help.

An excellent place to find help in knowing when and how to cite others' work appropriately can be found on the Libraries page: http://library.earlham.edu/friendly.php?s=academic_integrity. The site also includes Earlham's full statement on academic integrity and procedures for addressing academic violations of the Student Code of Conduct.

Students with Disabilities:

Students with a documented disability (e.g., physical, learning, psychiatric, visual, hearing, etc.) who need to arrange reasonable classroom accommodations must request accommodation memos from the Academic Enrichment Center and contact their instructors each semester. For greater success, students are strongly encouraged to visit the Academic Enrichment Center within the first two weeks of each semester to begin the process.

<http://www.earlham.edu/policies-and-handbooks/academic/policy-on-student-learning-disabilities/>

¹ Drawn from material by George H. Williams

Schedule of Topics & Assignments

Please note that this schedule is tentative and may change as circumstances require.

**Readings are due the first day they are listed.*

8/29	<p>Kathy & Rachael's class together Introduction; questionnaire initial topics; dividing class; Library Instruction Day</p>
9/2	<p>Discussing research question and/or study design in working groups. At the end of class, each person will show Rachael either a design sketch or a relatively long list of potential search terms and search term combinations.</p>
9/5	<p>Bring citations of at least 5 articles and be prepared to discuss them with your working group. IRB training cert. (see Moodle) due in class <i>Topics due on Moodle by 11:59pm</i></p>
9/9	<p>In class: What makes a good introduction? Technology instruction (also in class): Making a concise literature review in PowerPoint Assigned Reading: "Introduction" <i>Rough Intro Presentation Slides due 9/10 by 11:59pm on Moodle</i></p>
9/12	<p>In class: Be prepared to present your intro presentation to the class and/or to your working group. Bring slides. Bring a laptop, if possible. Take notes on areas of research lacking as well as on presentation style. If time, start working on your written introduction. Email or give each member of your working group a draft of your introduction by 9/14. Return edited drafts to workgroup authors by class time on 9/16.</p>
9/16	<p>Bring ideas for study design for your topic (bring ideas for at least 2-3 studies). Clearly connect these ideas to the literature that you've read. Identify areas that you still need to research. Brainstorm with working group in class Meet with working group prior to next class to create a well-developed study design</p>

9/19	<p>Assigned Reading: "Methods" <i>Due by class time: study design with possible questionnaires</i> In class: Discuss reading Present design to the class/group for critique Methods slides due on Moodle by 11:59pm on 9/21.</p>
9/23	<p>Present Methods presentation to group. Begin working on IRB form. Meet with your group outside of class to continue to refine your presentation and design. Work on IRB form.</p>
9/26	<p>Bring materials to class for piloting Bring completed (as much as possible) Human Subjects Form for peer review Human Subjects Forms due on Moodle by 11:59pm</p>
9/30	<p>In class: Qualtrics (If time) make changes to Human Subjects Form Human Subjects Form final draft due on Moodle by 11:59pm</p>
10/3	<p>Bring Intro/Methods draft to class for peer review Intro/Methods draft due on Moodle by 11:59pm</p>
10/7	<p>Bring Intro/Methods slides to class to practice. Exemption Forms (if applicable) due by 11:59pm</p>
10/10	<p>In class: Brainstorm about data collection – staying organized, creating a schedule, etc. Create SPSS databases for data entry Discuss any required or suggested changes to protocols, based on feedback from IRB</p>
10/14	<p>Independent (or working group) work; meeting with Rachael Start running subjects this week, if IRB is approved</p>
10/16	No Class, Mid-Semester Break
10/21	<p>Bring polished draft of intro/methods slides to class. Practice in front of class. Intro/Methods slides due to Moodle by 11:59pm</p>
10/24	<p>Independent work; meeting with Rachael 2nd draft Intro/Methods due to Moodle by 11:59pm</p>

10/28	<p>Assigned Reading: "Results" In class: What makes a good results section? Make individual meetings with Rachael if needed</p>
10/31	<p>Assigned Reading: "What Test Should I Use" (Under "Statistical Resources") In class: identify the statistical tests you'll need for your analyses. Don't forget about descriptive statistics (average age, etc.)</p>
11/4	<p>Data entry & analyses Be able to articulate the "so what" of your study for the next class.</p>
11/7	<p>Assigned Reading: "Discussion" and "Citations & References" In class: What's the "so what?" of your project? <i>Submit on Moodle by class time.</i> Be prepared to discuss your results, but more importantly, to discuss why anyone should care. <i>Results/Discussion slides due to Moodle by 11:59pm</i> Last Day to Drop Class Without Penalty</p>
11/11	<p>In class: Practice Results/Discussion slides</p>
11/14	<p>Bring Results/Discussion draft to class for peer review <i>Results/Discussion due to Moodle by 11:59pm</i></p>
11/18	<p>Bring full paper draft to class for peer review. Print (or bring your computer) article titled "50 tips." As you read through drafts, indicate which "tips" the author did properly and which tips need more focus. (Not all 50 will be relevant.)</p>
11/21	<p>In class: Practice Talks & Critique Completed paper draft due on Moodle by 11:59pm. Also attach a separate file with a self-assessment, indicating the degree to which you have followed the tips for writing an empirical article. In this file, also explain which comments from your group you have incorporated and which you have decided against and why.</p>
11/25, 11/28	<p>No Class, Thanksgiving Break</p>

12/2	<p>Practice Talks & Critique</p> <p>On the day of your practice talk, bring a typed copy of at least 10 questions you think an audience member might ask you.</p> <p><i>Final draft of presentations due by 11:59pm</i></p>
12/5	Practice Talks & Critique
12/9	Presentations to Department & Guests!
12/12	Presentations to Department & Guests!
12/16	<p>Presentations to Department & Guests!</p> <p><i>Papers Due to Rachael (via Moodle)</i></p> <p><i>& to 2nd Reader by 4pm</i></p>