Research Methods (Psych 340, Section 3)
Spring, 2013

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Course objectives:
This course is an introduction to research methods in psychology and is designed to provide you with knowledge of psychological research and hands-on experience conducting research. As such, your participation in this course will require that you develop research ideas, design a study, collect and analyze data, and write about and present your results. At the end of this course you will be able to think critically about research and to generate your own research.

Textbooks:


Course format:
Class meetings will include group and individual activities to provide hands-on experience with research in psychology. Activities include writing, data analysis, data collection, and peer review of presentations and papers. Lecturing will be minimal. You will be required to meet outside of class time on your group project.

Owlspace:
Course material (e.g., syllabus, assignments, handouts, information about grades, announcements, etc.) will be available on Owlspace. I will hold you responsible for all announcements about the class, including changes to the syllabus that are posted there. You should check the site regularly.
Assignments:

Reading quizzes. We will not have time in class to review textbook readings in lecture. Two quizzes on assigned readings are designed to ensure that you acquire relevant information about research design from the readings. Quizzes are online (through Owlspace) and are independent work covered by the honor code.

Popular press evaluation. You will find and analyze popular press coverage of psychological research (in newspapers, magazines, on the Internet). The popular source you choose must include a psychological claim and discuss it in some detail. It must also reference at least one author or article that you will obtain to evaluate the claim. The question you must answer is: Is this popular source an accurate representation of the science that is behind it? More information about this assignment can be found on the Assignments Tab in Owlspace. You will turn in a write-up of your findings and present them as part of a class discussion. The popular press evaluations are independent work covered by the honor code.

Article summaries. You will be asked to read and summarize all of the articles included in each research topic packets associated with this class. Articles summaries are due by 9:25 a.m. on the days we discuss the articles (on Owlspace). Your summary should include the following information for each article:

- The reference in APA format
- The main research question as you understand it
- A thorough description of the research including the design (experimental/correlational), the constructs of interest, and how they are operationally defined, identification of the IV/DV (or predictor/criterion).
- A description of the results and general conclusions
- A description of the limitations of the research
- Ideas about relevant follow-up studies

Article summaries should be no more than one page per article (use bullet points if you’d like). Article summaries are independent work covered by the honor code.

In class research project. You will serve as a research participant in class, and you will be required to write-up the method and results sections in APA format. We will work together to analyze the data, but you will work independently on the paper. Your paper is independent work covered by the honor code.

Group research project. You will work with a group to design and conduct a research study. There are many aspects to this project, including completing training on human subjects (offered by the Office of Sponsored Research), the development of an application for the Institutional Review Board, data analysis, a final paper, and a presentation.

During the first few weeks of class we will be soliciting research ideas based on readings provided in the topic packets. You will indicate the research projects you would like to work on based on a listing of possible projects developed jointly by our class discussions, your TA, and me. You will be organized into groups based on your interests. We will
make every effort to accommodate your first choice for a project but in some cases, this may not be possible. Each group will be responsible for designing, conducting, analyzing, and presenting the research project and its results.

After you have been assigned to a research group, your group will meet with me and/or the TA to formulate a research plan and develop an application for the IRB. Following this meeting, your group will meet during class and as needed outside of class to design your study in detail.

The week before spring break, you will propose your research plan to the class. The class, the TA, and I will provide feedback that should help you finalize your research plan. All members of your group MUST participate in this proposal presentation. Before spring break, all measures, materials, and stimuli will be sent to me in their finalized format so I can obtain approval from the IRB. After spring break, you will have about four weeks to collect your data.

It is expected that all members of a group participate equally in all aspects of the research project. You will have the opportunity to formally evaluate other members of your group and yourself in terms of participation at the end of the semester. This evaluation will figure into each person’s class participation grade.

Assignments related to the group research project:

*Human Subjects Training (See Appendix A for instructions):*
Review of the required materials and completion of the quizzes will take about 30-35 minutes per topic. You do not have to complete the course in one sitting. **A minimum score of 80% on each training module is required to pass.** See the instructions in Appendix A for what to do if you do not pass each module. **YOU WILL PRINT OUT YOUR CERTIFICATE OF COMPLETION AND BRING IT TO CLASS ON THE DUE DATE.** This is independent work covered by the honor code.

You will FAIL this class if you do not complete human subjects training because you cannot conduct research without it. (See me with questions.)

*IRB form and study materials including:*
IRB request to review a new study protocol: [http://osr.rice.edu/Forms/](http://osr.rice.edu/Forms/)
Consent form (template also available on the OSR website link above)
Debriefing form
All study materials including questionnaires, manipulations, recruiting materials (i.e., anything that the subjects will see).
**Your entire group will turn in the same study documents (i.e., this is group work).**

*Annotated bibliography.* After you are assigned a group and a particular research project, you will individually conduct a literature search on your topic. You will choose five of the most relevant articles that result from your search (but do not include articles that have been assigned as part of the class topic packets). The final product will include:
A history of your search: write down the parameters of the search (search terms; and/or rules used), and an indication of how many articles resulted from the search.

The article references (in APA format) and summaries of the articles with some evaluative judgment (e.g., how is the article relevant for your research question?). Summaries should be around 100 words (one or two paragraphs) for each article. You will hand it in through the assignments tab on Owlspace. This assignment is independent work covered by the honor code.

Group Project Final Report: Your final paper is the write-up of your group research project. This paper should comply with APA guidelines in every respect. The Method and Results sections of your paper can be done in collaboration with your group (although you may work alone on these sections if you prefer). This means that each member of your group can turn in exactly the same Method and Results sections.

The Introduction section of your paper will be peer reviewed by two people in your group (i.e., working on the same topic). You will also be required to read and comment on two Introduction sections that were written by your peers. Note that you must bring two copies of your introduction to class on the due date. You should also attach an electronic version of your introduction through Owlspace. You will be provided a rubric to help you evaluate the papers and to help you formulate your own. Peer review is figured into your class participation grade. Moreover, peer review will help you develop better papers.

All other sections of your paper MUST be done independently and are covered by the honor code. Your papers should be about 15 pages long (including title page, abstract, references, figures, and tables). Your paper is due on the last day of finals by 5 p.m. You should put a hard copy in my box in the psychology main office (or turn it in early during class). Also attach an electronic copy through the assignments tab on Owlspace. Do not email your paper to me or a TA.

Oral presentation. Each group will give a 30 minute presentation of their project and results during the last two class meetings. All group members must participate in the presentation in some capacity. All members of the class will be provided a rubric for grading the presentation and the final presentation grade will be a function of these ratings and the ratings from me and the TA.

Evaluation:
20% Quizzes (10% each)
10% IRB application & study documents –same grade for all group members
15% In-class experiment write-up
10% Annotated bibliography (5%) and article summaries (5%)
25% Research project and final paper (5% final presentation)
20% Class/group participation (popular press article; peer review; individual participation; group participation; proposal presentation).

This class requires class participation. If you cannot attend this class, drop it.
Grades will be determined on the following scale:

- 100 – 98 % = A+
- 97 - 98% = A
- 92 - 90 % = A-
- 89 - 88% = B+
- 87 - 83 % = B
- 82 - 80 % = B-
- 79 - 78% = C+
- 77 - 73 % = C
- 72 - 70 % = C-
- 69 - 68% = D+
- 67 - 63 % = D
- 62 – 60 % = D-
- 59 - 0% = F

**Important notes**

*Late work.* If you need extra time, assignments can be handed in late with a deduction of 5% of total points available for each 24 hour period they are late. You do not need to contact me or the TA to hand something in late. Exceptions to this are (1) the quizzes, which are administered online, (2) group work and presentations, where others are counting on you, and (3) the final paper, which is due the last day of finals, giving me very little time to grade before final grades are due.

*Disabilities.* If a student has a documented disability and needs academic assistance in this course, he or she should so inform me or a TA within the first two weeks of classes. All discussions will remain as confidential as possible. Students can contact me or a TA after class, during office hours, or by e-mail. Students with disabilities should also register with the Disability Support Services, especially if accommodations are needed.

*Academic integrity.* Students are expected to abide by the Honor Code and follow the guidelines provided in the Blue Book. I have tried to be explicit about which assignments are covered under the honor code and which are not. If you have any questions during the course of the semester, do not hesitate to ask. Students are encouraged to bring any concerns involving academic integrity to my attention.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
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| 1/8   | Course overview<br>
  *Find popular press article* |                                                                                   |
| 1/10  | Scientific method and theory: Defining a question & reading the research | Ch 1 – 3                                                                 |
| 1/15  | Popular press discussions (small groups)                               |                                                                                   |
| 1/17  | Measurement and ethics<br>
  *Human subjects training completed.*                             |                                                                                   |
| 1/22  | Discussion of Packet 1<br>
  *Article summaries due.*                                               | Packet 1<br>Quiz 1 posted                                                        |
| 1/24  | Using the library & conducting a literature review<br>
  *Quiz 1 on Ch 1 – 5 due by midnight, 1/25.*                           | Elka Tenner<br>Guest lecture                                                     |
| 1/29  | Discussion of Packet 2<br>
  *Article summaries due.*                                               |                                                                                   |
| 1/31  | Correlational/observational approaches<br>
  *Rank projects on Owlspace*                                            | Ch 6 – 8<br>Elka Tenner<br>Guest lecture                                         |
| 2/5   | Experimental approaches<br>
  Group meetings: Preliminary meetings; formulate design                 | Ch 9 – 11<br>Elka Tenner<br>Guest lecture                                         |
| 2/7   | Group meetings: formulate design                                       |                                                                                   |
| 2/12  | Group meetings: finalize design & begin IRB<br>
  *Annotated bibliography due*                                            | Quiz 2 posted<br>Elka Tenner<br>Guest lecture<br>Midterm recess (no class)       |
| 2/14  | Group meetings: Develop proposal presentation<br>
  *Quiz on Chapters 6 – 11 due by midnight, 2/15.*                      |                                                                                   |
| 2/19  | Research proposal presentations (20 mins/group)                         |                                                                                   |
| 2/21  | Proposal debrief & finalize IRB documents<br>
  *IRB app & study documents due (2/22, 5 p.m.)*                        |                                                                                   |
| 2/25 – 3/1 | Spring Break – No class                                |                                                                                   |
| 3/5   | In-class experiment participation<br>
  Group work: Data collection                                            |                                                                                   |
| 3/7   | In-class experiment data analysis and writing<br>
  Group work: Data collection                                            | Appendices A – B<br>Elka Tenner<br>Guest lecture<br>Midterm recess (no class)       |
| 3/12  | Writing research papers<br>
  Group work: Data collection                                            | Appendix C<br>Elka Tenner<br>Guest lecture<br>Midterm recess (no class)          |
| 3/14  | Group work: Data collection<br>
  *In-class method and results due.*                                      |                                                                                   |
| 3/19  | Group work: Data collection                                            |                                                                                   |
| 3/21  | Group work: Data collection                                            |                                                                                   |
| 3/26  | Group work: Data collection                                            |                                                                                   |
| 3/28  | Midterm recess (no class)                                              |                                                                                   |
| 4/2   | Peer review of paper Introduction<br>
  *Introduction due*<br>
  *All data collected by this date (bring to class)*                    |                                                                                   |
| 4/4   | Managing data (tips and practical approaches)<br>
  *Peer review of introduction due*                                      |                                                                                   |
| 4/9   | Group work: Results                                                   |                                                                                   |
| 4/11  | Group work: Presentations                                             |                                                                                   |
| 4/16  | Oral presentations                                                     |                                                                                   |
| 4/18  | Oral presentations                                                     |                                                                                   |
| 5/1   | Papers due by 5 p.m.                                                   |                                                                                   |
Appendix A

CITI Human Subjects Training Instructions; Registration and Course Completion

You should take the “STUDENTS CONDUCTING NO MORE THAN MINIMAL RISK RESEARCH” CITI course that includes the following required modules:

- Belmont Report and CITI Course Introduction
- Students in Research - SBR

1) Go to the CITI login page (https://www.citiprogram.org/Default.asp?)
2) Register as a "new user"
3) In the "Participating Institutions" drop down box, select Rice University as your institution. (you do not need to respond to the other drop down boxes for other categories of institutions.)
4) Create a username and password.
5) Create a Security Question and Answer.
6) Enter your name (as you provided it to Rice University).
7) Enter your preferred e-mail address.
8) Enter your Rice student/employee ID.
9) Complete the "Member Information" page including your department and your role in research, i.e., undergraduate, graduate, postdoc, etc.
10) You will then select a curriculum. You will be given a choice between the following: (a) Social and Behavioral; (b) Biomedical; (c) Student Researchers; (d) Data and Specimens Only Research; and (e) IRB Members. Choose the most appropriate course and click "submit." (STUDENTS CONDUCTING NO MORE THAN MINIMAL RISK RESEARCH)
11) On the next page you will be able to begin the training. Select "Enter" under "My Courses" to start the IRB training.
12) Complete the Integrity Assurance Module prior to initiating the learning modules.

Complete the required IRB modules and associated quizzes, achieving a minimum passing score of 80% on each module. A running tally is compiled in a grade book. If you want to improve a score on a quiz or have not achieved the minimum-required score of 80%, you may repeat it. Do so before you exit the program however; the process of repeating a module after you have exited the program is more complicated.

When you complete all of the required modules successfully, you will print your completion report through the "Print" link on the learner’s menu. **You are required to bring a copy of this completion report to class on the due date.** A copy of the report will be automatically sent to Rice's Office of Sponsored Research (OSR), which will maintain a record of your completion.