

**Psychology 212B/312B**  
**Psychology and Neuroscience: The Real World as Laboratory**  
Skidmore & Union Colleges - Winter 2015

*Instructor:* Flip Phillips, Ph.D.  
Professor of Psychology & Neuroscience  
TLC 155

*Co-instructor:* Christopher F. Chabris, Ph.D., Union College (chabris@gmail.com)

*Office Hours:* By appointment

*Meetings:* W/F, 10:10-11:30, TLC 203  
During weeks 1-7, an additional one hour weekly online meeting (e.g., via Google Hangouts) at a time to be arranged

*Description:* A blended seminar-style course, including classroom and online components, running in conjunction with an equivalent course at Union College (taught by Prof. Chris Chabris). Students will learn to apply knowledge of psychology, neuroscience, and behavioral research methods to understanding real-world phenomena and conducting studies in real-world environments. Projects will be conducted in groups that combine Union and Skidmore students, and will be written up and presented to the combined Union/Skidmore class.

*Course Overview and Goals*

The main goal of this course is to expose you to real-world applications and implications of findings in psychology and neuroscience, and therefore to deepen your understanding of these fields by linking theory to practice. It is one thing to know some facts and theories from your courses; it is another to be able to apply them to think more critically and creatively about the world around you. The main vehicle for learning will be an empirical research project that you will carry out in teams that include Union and Skidmore students, write up in a research report, and present in a short talk.

The ideal outcome from this course is that you will be better able to apply your knowledge of psychology and neuroscience to understanding events in your everyday lives and in the world around you. Here are some examples of what you might take away from your experience in this course:

- If you walk into a casino, you will be more likely to think about how the casino has been designed to optimize the house's ability to extract money steadily from its patrons' wallets. You might also think about how research could be conducted to determine what factors influence who gambles and how much they spend.

- If you happen to be interested in computer game design, you will be able to think about how principles of visual neuroscience and cognitive psychology determine whether players enjoy games, how long they will keep playing, and what (if anything) they might learn from playing the game.
- You should be able to analyze how the design of paper forms, websites, apps, and public spaces influences how humans behave in response, and you should know how to construct experiments that test the efficacy of different design alternatives.

Overall, we hope that you will more deeply integrate what you have learned about psychology and neuroscience into your moment-to-moment thinking about the world, rather than considering these disciplines to be academic subjects that don't touch your own lives.

### *Requirements*

#### Class Participation (40%)

This part of your grade will be based on: your attendance and participation in class discussions (20%); your submission of any assigned brief commentaries, responses, online discussion contributions, and/or questions on readings throughout the term (10%); and your peer-editing of your classmates' paper drafts (10%). Class discussions will focus on: reinforcing understanding of behavioral research and statistical principles, brainstorming research project ideas and methods, and improving writing and speaking skills.

#### Projects and Writeup (50%)

You will carry out an empirical research project over the course of the term. You will develop the topic and hypotheses for your project early in the term. Projects can be observational or experimental studies, and will include systematic collection of data and statistical analysis to generate results. Projects will be conducted, to the extent possible, in "real world" settings, e.g. on websites, in public spaces, and/or by sampling participants from the general public (rather than by studying college students in a classroom or laboratory).

A paper will be due at the end of the course, in which you describe your project following the format and style requirements of an article in a psychology or neuroscience journal. *The projects will be carried out by combined groups that include at least one student from Union and one student from Skidmore. Each student must write his or her own paper.* The complete paper should be approximately 10-15 pages. Drafts of the paper will be due in stages during the term, with the following schedule:

Week 2: Proposed hypothesis and research design (one-page memo—not a paper section)

Week 3: Introduction (citations and references must be turned in at each stage)

Week 4: Methods

Week 5: Results

Week 6: Discussion

Friday of Union final exam week @ 5:00 PM: Final complete paper

### Final Talk (10%)

At the end of the term you will script, rehearse, and deliver a short talk (approximately six minutes, TED-style) describing some aspect or part of your group's project. Talks will be given during Week 7.

### *Readings*

Chabris, C.F., & Simons, D.J. (2010). *The invisible gorilla, and other ways our intuitions deceive us*. New York: Crown.

Cohen, B.H., & Lea, R.B. (2003). *Essentials of statistics for the social and behavioral sciences*. New York: Wiley.

Marczyk, G.R., DeMatteo, D., & Festinger, D. (2005). *Essentials of research design and methodology*. New York: Wiley.

*Publication Manual of the American Psychological Association*, 6th ed. Washington, DC: APA. [any version is acceptable as long as it is the 6th edition]

Pinker, S. (2014). *The sense of style: The thinking person's guide to writing in the 21st century*. New York: Viking. [excerpts]

Additional required essays and articles will be distributed throughout the term, as handouts in class and/or as PDFs via Blackboard. Reading assignments will usually be detailed 5-7 days in advance of when they will be discussed.

When a reading is assigned for a class meeting, you should come fully prepared to thoughtfully discuss and debate it. This means not just skimming the text right before class, but reading it in advance, looking up terms or ideas you don't know, and thinking about the material, and how it fits in with the rest of the course material, before you get to class. Before each meeting you should write down in your notes 2-3 observations, insights, or questions about the readings or activities that you can refer to and contribute to the class during discussion. This will help you earn a good class participation grade, and will make the course more enjoyable for everyone.

## Videos

We will watch at least these two videos during the course:

1. "The Sense of Style" - a talk by Steven Pinker, Harvard cognitive scientist and bestselling author, on effective writing [<https://www.youtube.com/watch?v=3ZKTmsgqi0U>]
2. "Derren Brown: The Heist" - a program shown on British television in 2005 [<https://www.youtube.com/watch?v=PaHbACoYNSA>]

## Miscellaneous Course Policies

**Attendance:** You are expected to attend all class meetings. If you cannot attend a class for any reason, you are still responsible for the material covered in that class, so you should get notes from someone else who was present. Missing classes will adversely affect the class participation component of your grade. You should inform the instructor(s) in advance if you have to miss any meeting.

Miss more than 3 classes and I *reserve the right* to fail you.

Miss the first day and I *reserve the right* to drop you from the class and admit someone on the wait-list.

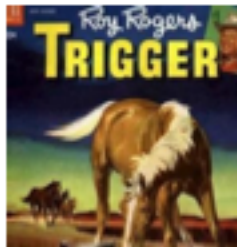
**Exams:** To be excused from an exam, except for sudden extreme illness, you must arrange with me at least 24 hours before the exam is scheduled. Anyone missing an exam who has not been excused will receive a 0. The exams will take a variety of forms, including, but not limited to: multiple guess, essay, and short answer. They will primarily cover information from class. Our books are a nice way to facilitate discussion in class so you'll want to show up if you want to do well on the exam. Make-up exams must be scheduled within the week following the exam.

**Late Suff:** Work that is presented to me late without prior notice will receive a 0. If something is going to be late get in touch with me. I fully reserve the right to give late work whatever penalty I feel is appropriate. I don't offer 'extra credit' or anything like that.

**Plagiarism:** Plagiarism will result in failing the course.

**Honor Code:** The Skidmore Honor Code applies to everything in this class.  
<http://www.skidmore.edu/advising/integrity/index.php>

*Individuals with Disabilities:* Services and accommodations are available to students covered under the Americans with Disabilities Act. If you require accommodations in this course contact Student Academic Services for further assistance. If you have any visual, perceptual, or physical challenges that might result in the need for some form of accommodation I am more than willing to help you help yourself.



*Warning:*

At this university, students could be exposed, at any moment, without warning, to ideas, comments, readings, or other materials that they find shocking, offensive, absurd, annoying, racist, sexist, homophobic, discriminatory, or generally obnoxious.

We call this education. - Jonathan Rauch

This document subject to random changes with proper notice in class / via email / BlackBoard.



**Psychology 421**  
**Psychology and Neuroscience: The Real World as Laboratory**  
Union College - Winter 2015

*Instructor:* Christopher F. Chabris, Ph.D.  
Associate Professor of Psychology  
Butterfield Hall 306  
518-388-6259 [I rarely check voicemail]  
chabris@gmail.com [best way to reach me]

*Co-instructor:* Flip Phillips, Ph.D., Skidmore College (flip@skidmore.edu)

*Office Hours:* Mondays and Wednesdays, 11:00am-12:30pm

- To see me during office hours, just drop in—no appointment needed
- To see me at a different time, just email to set up an appointment in advance
- No office hours on February 18, March 2

*Meetings:* Mondays & Wednesdays, 3:05-4:45pm, Bailey 306  
During weeks 3-10, an additional one hour weekly online meeting (e.g., via Google Hangouts) at a time to be arranged

- No class on February 18, March 2

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*Prerequisite:* PSY 200, and either PSY 210 or PSY 211 or PSY 220; or permission from the instructor.

*Course Overview and Goals*

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Week 4: Proposed hypothesis and research design (one-page memo—not a paper section)

Week 5: Introduction (citations and references must be turned in at each stage)

Week 6: Methods

Week 8: Results

Week 9: Discussion

Friday of final exam week @ 5:00 PM: Final complete paper

#### Final Talk (10%)

At the end of the term you will script, rehearse, and deliver a short talk (approximately six minutes, TED-style) describing some aspect or part of your group's project. Talks will be given during Week 10.

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**Honor Code:** Union College recognizes the need to create an environment of mutual trust as part of its educational mission. Responsible participation in an academic community requires respect for and acknowledgement of the thoughts and work of others, whether expressed in the present or in some distant time and place. Matriculation at the College is taken to signify implicit agreement with the Academic Honor Code [<http://honorcode.union.edu>]. It is each student's responsibility to ensure that submitted work is his or her own and does not involve any form of academic misconduct. Students are expected to ask their course instructors for clarification regarding, but not limited to, collaboration, citations, and plagiarism. Ignorance is not an excuse for breaching academic integrity.

Students are required to affix and sign the following shortened version of the Honor Code Affirmation on each item of coursework submitted for grading: "I affirm that I have carried out my academic endeavors with full academic honesty."

**Individuals with Disabilities:** Students with documented disabilities should notify the Dean's office and their instructors of any special needs. It is the policy of Union College to make reasonable accommodations for qualified individuals with disabilities. If you are a person with a disability and wish to request accommodations to complete

your course requirements, please make an appointment with me as soon as possible to discuss your request.

