# PSY-P211: Research Methods Spring 2020 Syllabus

#### **CLASS TIME AND PLACE**

Lecture Section 3855: Monday, 9:05 – 9:55 AM in room PY 100

# **LECTURE INSTRUCTOR INFORMATION**

Instructor: Rick Hullinger Office: PY A300B Office Hours:

> Tuesday, 2:30 — 5:00 PM Wednesday 10:00 AM — 12:00 PM

Or by appointment

Office Telephone: 812-856-6854 Email Address: <u>rahullin@iu.edu</u>

## LAB INSTRUCTOR INFORMATION

Click on your lab instructor's name for contact info and office hours, or use this page to find your lab instructor based on lab schedule.

Tracy Burns-Yocum
Huzi Cheng
Lindy Howe
Clare Johnson
Paul Niou
Claire Tomlinson

Josh Watkins Rong Zheng

### COURSE DESCRIPTION

This course is intended to introduce you to methods used in experimental psychology. You will learn to design experiments, collect data, analyze data, compose scientific manuscripts, and think critically about psychological literature. This course places a large emphasis on scientific writing, as writing is the primary method employed for disseminating research findings. A key goal of this course is to promote the development of scientific writing skills through exercises and assignments.

## **COURSE OBJECTIVES**

Successful students will be able to:

- Recognize and compare different research designs and techniques, including selecting an appropriate research design to evaluate competing hypotheses and connecting predictions to specific measures
- Critically evaluate scientific claims in both the popular press and scientific articles
- Identify and summarize relevant sources in the scientific literature
- Generate hypotheses and design a research study to address these hypotheses
- Interpret and communicate results using scientific language
- Discuss and explain the ethical conduct of human and animal research
- Execute a research study from hypothesis to communication of research results

## **READINGS**

There is no textbook for P211. All assigned readings will be posted in the Modules section of the lecture's Canvas site. These readings include a range of journal articles, book chapters, and tutorials. You will be expected to complete the assigned readings before each week's lecture or lab and come to class prepared to discuss them and ask questions.

## LECTURE/READING QUIZZES

Each week where there is a reading listed on the lecture schedule, those readings should be completed before the associated lecture. In order to help you learn and process the readings, and to give you credit for completing the readings, short quizzes over the content of the readings will be posted via Canvas each week. Each quiz must be completed by 11:59 PM on the Sunday night before lecture and your two lowest quiz scores will be dropped.

## GRADING

Your final grade is computed using the following formula:

Lecture participation	10%
Lecture quizzes	10%
Lab participation	15%
Lab homework	65%

#### **GRADING SCALE**

A+: 97.00% -100%;	A: 93.00% - 96.99%;	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%		

## LAB ATTENDANCE AND PARTICIPATION POLICY

Attendance is a key part of the learning experience. You are expected to attend all labs and come prepared to each class. Your lab instructor will be taking attendance each class and absences will result in a reduction in your lab participation grade. Each student will have their two lowest lab participation scores dropped. We do not make a distinction between excused and unexcused absences. If you miss a lab due for any reason (illness, travel for sports or interviews, oversleeping, or emergency), participation for that day will be recorded as a zero. Earning full participation credit requires preparation, attendance, and engagement with the lab activities and discussions.

## LAB HOMEWORK

Homework assignments, typically involving literature reviews, data analysis, and/or scientific writing, will be assigned in lab most weeks. These assignments should be submitted via Canvas before the start of the following week's lab. There will be a total of 700-640 points available in the lab homework assignments. Earning 650-590 or more points will result in a 100% lab HW grade. Therefore, you may be able to do poorly on an assignment or two, or miss an assignment, and still earn full credit for this portion of your grade.

All homework submissions will be reviewed by turnitin.com for plagiarism. All work submitted must be your own work created specifically for this class. That is, if you have taken part or all of P211 before, you may not reuse any of that previous work for this class. Submitting any work that includes materials from your previous classes, P211 or otherwise, will be considered plagiarism and treated as academic misconduct.

You may not use quotations in your written assignments. Quoting material from a source article does not demonstrate understanding of the content, thus, you will not receive credit for quoted material, even if properly cited. You will be expected to paraphrase material from source articles (not just changing a couple of words). Points will be deducted for sloppy paraphrasing.

Commented [RH1]: Due to the additional week of spring break, all HW assignments are shifting back one week and we will have to drop one HW assignment (HW 13). As a result, the HW point total will be reduced, but we'll keep the same 50 point buffer that was in place before.

## **LATE SUBMISSION POLICY**

Lab homework assignments may be turned in late, but late work will incur a penalty of 20 percent per day (24 hours) that the assignment is late. If the late assignment is due to a university-recognized religious observance, or a medical, family, or personal emergency, you must inform your lab instructor as soon as possible and before the assignment is due. Except for extreme and unforeseen circumstances, contacting your instructor the day of or after an assignment due date will be considered unexcused and the standard late submission policy will apply.

#### **CLICKERS**

Clickers (IU's TopHat response system) will be used in this class, and you are required to have a TopHat account and a compatible device (a web-enabled smartphone, tablet, or laptop computer.) If access to such a device is a problem for you, please come see the lecture instructor for help as soon as possible.

Except for the first week of the semester, there will be at least two clicker questions in each Monday morning lecture. There will be 13 such lectures, and you must submit responses to at least half of the questions asked each day in order to earn full credit for the day's participation. Your participation in the clicker questions is a key way to improve your learning in the large lecture hall and to provide feedback to the instructor about what you understand. Clickers are used as formative assessment so there is no penalty for incorrect answers, but students who are answering thoughtlessly may not receive participation credit.

After Spring break, lecture materials will be presented as pre-recorded videos via Canvas. Students will be expected to watch these videos each week on Monday before 5 PM EDT (Indiana time). Along with the videos, short Canvas quizzes will be posted. The quiz questions will be similar to the clicker questions that had been answered in the face-to-face lectures. Your score on these weekly Canvas lecture participation quizzes will count as your lecture participation scores for the remaining lectures.

Each student will have their three lowest lecture participation scores dropped. We do not make a distinction between excused and unexcused absences. If you miss lecture due to illness, oversleeping, travel, or emergency, or do not respond to the clicker questions for any reason (dead phone battery, didn't answer in time, connection problems, etc.), participation for that day will be recorded as a zero.

Clicker misconduct (e.g., responding for anyone other than yourself, answering any clicker question while not physically in the classroom, etc.) will be considered academic misconduct, and will result in significant grade reductions or failure of P211 as well as other university sanctions.

Students who need accommodations for observance of religious holidays must contact the lecture instructor (Rick) as indicated in the <u>academic bulletin</u>. All requests for accommodations must be made before Monday, Feb. 17<sup>th</sup>.

# STUDENT RESPONSIBILITY

It is your responsibility to double-check your quiz, participation and homework grades each week – both that the work was correctly graded and that the scores posted on Canvas match your actual grades. You have two weeks from the time an assignment is returned to the class to address any grading issues. After that, the grades posted on Canvas will be considered final.

Commented [RH2]: Clarification of the way lecture participation scores will be calculated for non-face-to-face classes. Unlike the clicker questions, you will need to answer the Canvas participation quiz questions correctly to earn credit.

#### **EMAIL**

We expect you to be checking your IU e-mail account (not just Canvas messages) no less than once a day. We will send frequent messages to the class with announcements, clarifications, instructions, and/or updates. You are responsible for the content of these messages exactly as if the material had been presented in class. Saying "I didn't read that e-mail" or "I haven't checked my e-mail for a few days" will not be considered a valid excuse for missing information. All class-wide messages will be sent using the Canvas Announcement tool, so archived messages can always be found on the Canvas sites.

#### **FEEDBACK**

Do not wait until the end of the semester course evaluations to let us know that we could be doing something better. Tell us as soon as possible so that we can make the class valuable and relevant as we go along. If you have any feedback, good or bad, about the course or how it's being taught, please feel free to send it to your instructor anonymously. You can provide feedback about the lecture (Rick) using this link. You can find a link to your lab instructor's anonymous feedback by clicking on their name at the top of this syllabus.

## **ACADEMIC HONESTY**

This course is conducted under the University's Ethics Code. Specifically, it is considered cheating if you obtain any kind of information about answers and solutions to the work in this course from any non-intended source or conversely transfer such information to others. It is also considered cheating if you lie to your instructor about an absence relating to a homework assignment or quiz. The punishment for academic dishonesty may include a grade reduction or a zero on any quizzes, assignments, and/or exercises, failure of the course, and/or other actions as determined by the instructor and/or the Dean of Students.

Due to the frequency and unpleasantness of plagiarism incidents in P211, students must complete a web-based plagiarism training exercise. At the URL below, IU offers a short 10-question test that, when successfully completed, will provide you with a certificate which you must submit to your lab instructor (via Canvas) before your lab section meets during the week of Jan. 27th. After Jan 27th, all lab homework assignments will be considered late (as per the late policy outlined above) until the plagiarism certificate has been submitted. The plagiarism course (including helpful tutorials and practice quizzes) can be found at this website.

## COURSE CAPTURE TECHNOLOGY

We will be using a course capture system that allows us (me and UITS) to audio- and video-record and distribute the Monday morning P211 lectures to you through Canvas. Because we will be recording in the classroom, your questions or comments may be recorded. You may watch recordings online, or download them for off-line viewing on your computer, smartphone, or media player. These recordings are copyrighted by me and provided by me and the University for your personal use. Please see the copyright statement below for the full terms of use. Due to possible unforeseen technical issues, we cannot guarantee that all class sessions will be properly recorded. It is important that you attend class, actively participate, and take notes. If you miss a class session, you cannot assume that a recording will be available.

# RESPECT

Please be smart with your in-class behavior. If you must arrive late, enter quietly and sit in the back. If you believe that you may need to leave early, please sit near the back and slip out quietly. Please turn off your cell phones and do not text while in class. Please do not use the laboratory computers to check email, social media sites, or to visit any websites or applications unrelated to the course. If you are being disruptive to me or to the class, I will ask you to leave.

## STATEMENT FOR STUDENTS WITH DISABILITIES

Every attempt will be made to accommodate qualified students with disabilities (e.g. mental health, learning, chronic health, physical, hearing, vision neurological, etc.) You must have established your eligibility for support services through the appropriate office that services students with disabilities. Note that services are confidential, may take time to put into place and are not retroactive; Captions and alternate media for print materials may take three or more weeks to get produced. Please contact <a href="Disability Services for Students">Disability Services for Students</a> at <a href="mailto:ibdss@indiana.edu">ibdss@indiana.edu</a> or 812-855-7578 as soon as possible if accommodations are needed. The office is located on the third floor, west tower, of the Wells Library, Room W302. Walk-ins are welcome 8 AM to 5 PM, Monday through Friday. You can also locate a variety of campus resources for students and visitors that need assistance at: <a href="http://www.iu.edu/~ada/index.shtml">http://www.iu.edu/~ada/index.shtml</a>

## SEXUAL MISCONDUCT AND TITLE IX POLICY

As your instructor, one of my responsibilities is to create a positive learning environment for all students. Title IX and IU's Sexual Misconduct Policy prohibit sexual misconduct in any form, including sexual harassment, sexual assault, stalking, and dating and domestic violence. If you have experienced sexual misconduct, or know someone who has, the University can help.

If you are seeking help and would like to speak to someone confidentially, you can make an appointment with:

The Sexual Assault Crisis Services (SACS) at (812) 855-8900 (counseling services) Confidential Victim Advocates (CVA) at (812) 856-2469 (advocacy and advice services) IU Health Center at (812) 855-4011 (health and medical services)

It is also important that you know that Title IX and University policy require me to share any information brought to my attention about potential sexual misconduct, with the campus Deputy Title IX Coordinator or IU's Title IX Coordinator. In that event, those individuals will work to ensure that appropriate measures are taken and resources are made available. Protecting student privacy is of utmost concern, and information will only be shared with those that need to know to ensure the University can respond and assist.

I encourage you to visit <u>stopsexualviolence.iu.edu</u> to learn more.

## COPYRIGHT

Copyright Rick Hullinger and Indiana University, 2020. All federal and state copyrights in these course materials are reserved by their respective creators. You are authorized to take notes in class and/or record my lectures for your own personal use. You are also welcome to share these materials with others. However you may not make any commercial use of my course materials or profit from them in any way without my prior written permission. In addition to legal sanctions for violations of copyright law, students found to have violated these prohibitions may be subject to University disciplinary action under the <a href="Code of Student Conduct">Code of Student Conduct</a> and/or violations of the <a href="University's Technology Acceptable Use Policies">University's Technology Acceptable Use Policies</a>

# DISCLAIMER

This syllabus is an outline of the course and its policies, which may be changed for reasonable purposes during the semester at the instructor's discretion. You will be notified in class and / or via email if any changes are made to this syllabus, and an updated syllabus will be provided on Canvas.

# PSY P211, Spring 2020 Research Methods in Psychology – Schedule

Week		Date	Description	Assignment	Readings (for Lecture)
1	Lecture	Jan 13	Introductions / Empirical Research		
	Labs		Introductions & Critical Thinking		
2	Lecture	Jan 20	No Lecture, MLK Jr. Day		Baker, McFall, & Shoham, 2009;
	Labs		Evidence Based Therapy, Part 1	HW 1	Lilienfeld & Arkowitz, 2014
3	Lecture	Jan 27	Research Design		RMP Experimental Designs;
	Labs		Evidence Based Therapy, Part 2	PT	Marks et. al. 1998
4	Lecture	Feb 03	Writing an Introduction		RMP Research Literature;
	Labs		Literature Review	HW 2	Roediger & Gallo, 1999
5	Lecture	Feb 10	The Stroop Task		Stroop Effect (Wikipedia);
5	Labs		Extending Stroop	HW 3	Constantine et. al., 2001
	Lecture	Feb 17	Statistical Analysis		DNAD Chatistical Applysis
6	Labs		Data Collection & Analysis	HW 4	RMP Statistical Analysis
7	Lecture	Feb 24	Communicating Your Results		Leary 2012;
,	Labs		Peer Reviews	HW 5	Zinsser 2006
8	Lecture	Mar 02	Surveys & Survey Design		RMP Psychological Measurement;
0	Labs		Surveys & Behavioral Measures	HW 6	RMP Survey Research
9	Lecture	Mar 09	Gross Anatomy		Neuroanatomy
	Labs		Neuroscience Techniques	HW 7	
10	Lecture	Mar 16	No Lecture, Spring Break		
10	Labs		No Labs, Spring Break		
11	Lecture	Mar 23	No Lecture, Extended Spring Break		
11	Labs		No Labs, Extended Spring Break		
12	Lecture	Mar 30	Correlational Analysis		RMP Correlation;
12	Labs		Correlational Analysis	HW 8	RIVIF Correlation,
13	Lecture	Apr 06	Statistical Concerns		False Positives; Pre-Registration;
	Labs		Animal models	HW 9	Animal Research
14	Lecture	Apr 13	Factorial Designs		RMP Factorial Designs;
	Labs		Factorial Experiment Setup		Review Constantine et. al., 2001
15	Lecture	Apr 20	Replication and Meta-Analysis		Replication
	Labs		Finalizing Your Experimental Methods	HW 10	
16	Lecture	Apr 27	Interpreting Your Results		
	Labs		Data Analysis and Interpretation	HW 11	
17		May 06	Results section due 5:00 pm	HW 12	