

THE SCIENCE OF PSYCHOLOGY
Columbia University
PSYC 1001 section 002
Fall 2020

Lecture days: Mondays & Wednesdays

Lecture times: 10:10am – 11:25am (EST)

Location: fully online and synchronous

Office Hours: all office hours will be held using zoom sessions

Instructor

Tina Kao, PhD

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Teaching Assistants

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Office hours: M/W 11:30 AM - 12:30 PM EST

Abhi is a senior in Columbia College studying Neuroscience. His research interests include neuropsychiatry, memory, and learning, with a focus on understanding how the brain performs basic functions at the molecular and cellular levels. Feel free to drop into his office hours if you're interested in learning more about research as an undergraduate, science outreach, or how to make a mean cup of chai.

For **course inquiries** (questions on materials, clarifications, etc.) please post your inquiries to the Discussions page on Canvas (you're probably not the only one wondering!). Do not email individual TAs.

For **personal inquiries** (personal concerns, etc.) please email the following email address: tapsych2020@gmail.com

Required Textbook

Gazzaniga, Michael S. (2018). "Psychological Science". W.W. Norton & Company

Hardcover: ISBN: 978-0-393-64034-2

Paperback: ISBN: 978-0-393-67438-5

Loose Leaf: ISBN: 978-0-393-67439-2

Ebook and Learning Tools: ISBN: 978-0-393-66442-3

Course Description

This course provides a broad survey to the study of psychological science. The topics covered will include an overview of the many different areas of study within the field of Psychology, ranging from the biological, to the cognitive and social perspectives. We will discuss the role of the nervous system for cognitions and behaviors. This course will emphasize science as a process of uncovering new ideas and empirical results. Recent advances of research within Psychology will also be presented.

Course Objectives

The objectives for each student taking this course will be a bit different, depending on your circumstances.

If you are interested in the study of Psychology, this course will provide you with a basic understanding of the concepts and research within the field. This course lays the foundation for those with concentrations or majors in Psychology, along with those majoring in Neuroscience and Behavior.

Others may be taking this course in order to fulfill a science requirement. If you are one of these students, this course is designed to be accessible to all students, and you may find that quite a bit of psychological science applies to other academic fields, such as those associated with the humanities and social sciences.

Finally, many of you may be involved in a pre-health track towards a future in medicine, since questions pertaining to Psychology are now part of the MCAT. I will do my best to address MCAT related topics, although it is my hope that you will find the course in its entirety to be an engaging and enriching experience.

Course Grading

Exam 1: 15%

Non-cumulative Exam 2: 20%

Non-cumulative Exam 3: 20%

Experimental Participation (at least 6 credits): 10%

Paper 1: 15%

Paper 2: 20%

The letter grade equivalent for your final grade for the course will be assigned according to the following scale:

97 – 100: A+	89.9 – 87.0: B+	79.9 – 77.0: C+	69.9 – 60.0: D
96.9 – 93.0: A	86.9 – 83.0: B	76.9 – 73.0: C	59.9 & below: F
92.9 – 90.0: A-	82.9 – 80.0: B-	72.9 – 70.0: C-	

Exams

The exams will be opportunities to demonstrate how well you have learned the material covered in the course. There will be three equally-weighted exams administered in this course. For all of the exams, you will be responsible for 1) the material covered in lectures and 2) the assigned readings of the textbook. Webcams are required to be turned on while you are taking the exams.

Participation in Experiments Offered within the Department of Psychology

Your experimental participation will consist of you participating in experiments currently offered by the Department of Psychology. All experiments are approved by Columbia's IRB. NOTE: If you are under the age of 18, please send an email to tapsych2020@gmail.com as soon as possible, as you are not legally permitted to participate in experiments offered by the department.

Each student is required to complete 6 credits worth of experimental participation. Since 1 credit is given to each student for 30 minutes of experimental completion, and since experiments range from 30 – 90 minutes, plan on participating in more than one experiment.

Paper 1 is based upon your experimental participation (refer to Papers 1 and 2 below). Therefore, you will need to complete at least one experiment prior to October 28 (this is the due date for Paper 1, so allocate yourself enough time between completion of your experimental participation, and the due date of this paper).

The remainder of credits needed to fulfill your experimental participation can be completed anytime on, or before, **date tbd**. No paper is required for this remainder of credits associated with fulfillment of experimental participation, so just enjoy the experience!

Papers 1 and 2

You are required to write two papers for this course. The goals of these papers are for you to demonstrate a fundamental understanding of hypothesis driven research in the academic field of Psychology. Both papers should be two-pages. More specific guidelines and rubrics will be provided. Brief descriptions are as follows:

Paper 1 will be based on the experiment you participated in. Note that you need to complete your experimental participation so that you will have enough time to write, and to submit Paper 1 by October 28. For this paper, you will be expected to write about the basic elements you have learned from the experiment in which you were a participant of (e.g. hypothesis, methods, discussion).

Paper 2 will be an opportunity for you to design and write your own research experiment! You will be expected to incorporate, via an experimental design, any of the materials we have discussed during the course. All of the basic elements of hypothesis driven research (e.g. hypothesis, experimental methods, predicted results) will be expected for the completion of Paper 2. Again, specific guidelines and rubrics will be provided for both papers as we progress into the semester.

Course Policies

Etiquette during Class

Since this class is held via an online platform, please make sure to respect the entire class. We will continue with etiquette procedures as the session progresses. The following are suggestions for succeeding in an online format.

- Dress as if you are in the Classroom.
- Keep your microphone muted unless asking a question or engaging in discussion.
- Check your video and audio when entering your class session.
- Think background, minimize distractions around you.
- Focus on Class.

Absences/Lateness

Given the size of the class, I will not be taking attendance, nor will class participation account for any portion of your grade. However, be aware that you will be responsible for the materials covered as part of the lectures, much of which may not be contained in the readings of the textbook. In addition, the materials presented during lecture will constitute greater portions of the exams.

If you are unable to attend the days/times that the exams are scheduled for, please contact tapsych2020@gmail.com as soon as possible. Having multiple exams on a single day, or vacation plans, are NOT acceptable reasons for needing to reschedule a make-up exam. For the most part, the only acceptable reason for missing an exam is due to serious illness. If such a situation arises, you may proceed to inform your advising dean, along with your instructor, to reschedule a make-up exam.

Academic Integrity

Academic integrity means presenting only your own work in your assignments. Taking credit for the work of others is a serious violation of the academic community, and anyone found to be guilty of cheating or plagiarizing will receive a zero for that assignment and will be reported to the University. Information on what constitutes a violation of academic integrity can be found in Columbia's Undergraduate Guide to Academic Integrity:

<http://www.college.columbia.edu/academics/integrity>. That said, if you have any questions about how to appropriately cite another's work or build upon someone else's ideas, please feel free to contact Professor Kao, or your TAs.

Disability Services

In order to receive disability-related academic accommodations for this course, students must first be registered with their school Disability Services (DS) office. Detailed information is available online for both the [Columbia](#) and [Barnard](#) registration processes. Refer to the

appropriate website for information regarding deadlines, disability documentation requirements, and [drop-in hours](#) (Columbia)/[intake session](#) (Barnard).

For this course, students are not required to have testing forms, or accommodation letters, signed by faculty. However, students must be aware of, and do the following:

1. The Instructor section of the testing form has already been completed, and this testing form does not need to be signed by the professor.
2. The student must complete the Student section of the testing form, and submit this form to Disability Services.

Master forms are available in the office of Disability Services, or online: <https://health.columbia.edu/services/testing-accommodations>

Tentative Schedule for Topics and Readings (allocations of dates for each topic may vary)
You are required to complete the readings for the lecture topics *before* each class date.

Dates	Lecture Topics	Readings
September 09	Introduction/Overview of Course	
September 14, 16	Introduction to Psychology and Research Methods Introduction to Nervous System	Chapters 1, 2
September 21, 23	Nervous System and its components: neuroanatomy and mechanisms of action	Chapter 3
September 28, 30	Consciousness: circadian rhythm, modulations associated with neuropharmacology Sensation: psychophysics	Chapters 4, 5
October 05, 07	Sensation: sensory transduction <u>Exam 1 on October 07</u>	

October 12, 14	Perception: visual attention	Chapter 5
October 19, 21	Learning: conditioning, observational learning and biological basis of learning	Chapter 6
October 26, 28	Memory: models of human memory Memory: biological basis of human memory <u>Paper 1 due at the beginning of class on October 28</u>	Chapter 7
November 02, 04	<u>No class on November 02</u> Language and Intelligence: elements of directive thinking	Chapter 8
November 09, 11	Human Development: physical, cognitive social patterns of the lifespan <u>Non-cumulative Exam 2 on November 11</u>	Chapter 9
November 16, 18	Motivation: biological motivators, intrinsic vs extrinsic Emotion: physiological aspects of emotions	Chapter 10
November 23, 25	Health and Well Being: stress, behaviors associated with coping <u>No class on November 25 (Happy Thanksgiving!)</u>	Chapter 11
November 30 December 02	Social Psychology: group behaviors, group influences Personality: the big five, traits	Chapters 12, 13
December 07, 09	Psychological Disorders: classifications, Diagnostic and Statistical Manual of Mental Disorders (DSM)	Chapter 14

December 14	Psychological Disorders: treatments of symptoms <u>Paper 2 due at the beginning of class on December 14</u>	Chapter 15
TBD	<u>Non-cumulative Exam 3</u>	

Please note that this syllabus is subject to revisions throughout the semester.