

**The Science of Psychology**  
PSYC W1001, section 002  
Fall 2018

Course Information

Lecture days: Mondays & Wednesdays  
Lecture times: 1:10 – 2:25 PM  
Location: 501 Schermerhorn

Instructor Information

Name: Tina Kao, PhD  
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Office: 500 Schermerhorn  
Office hours: Wednesday 2:30 – 4:30 PM

**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.

**Grading**

Exam 1:	20%
Non-cumulative Exam 2:	20%
Non-cumulative Exam 3:	20%
Experimental Participation (at least 6 credits):	10%
Paper 1:	15%
Paper 2:	15%

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. The exams will consist of multiple choice and short answer questions. For all of the exams, you will be responsible for 1) the material covered in lectures **and** 2) the assigned readings of the textbook.

### **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. A representative from the department will be providing more information about your experimental participation. This will occur early during the semester. NOTE: If you are under the age of 18, please contact Professor Kao 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 you 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 24 (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 fulfill your experimental participation can be completed anytime on, or before, December 10th. 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. Both papers should be two-pages, and double-spaced. More specific guidelines will be provided for both Papers 1 and 2. The goals of these papers are for you to demonstrate a fundamental understanding of hypothesis driven research in the academic field of Psychology. A brief description is 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 24th. 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, methods), along with a description of what the predicted results, will be expected for the completion of Paper 2. Again, specific guidelines will be provided for both Papers 1 and 2 as we progress into the semester.

## **Course Policies**

### ***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 that the exams are scheduled for, please contact Professor Kao as soon as possible. Please plan ahead: 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 was to arise, you may proceed to receive permission from myself and from your advising dean to reschedule a make-up exam.

Submissions of Papers 1 and 2 past the deadline dates will result in a reduction of 10% of the total score, for each day of late submission.

### ***Class Etiquette***

Laptops may be used for course specific purposes. However, please be considerate to those around you if you do use a laptop. I understand that there are many gifted people out there who think that they are capable of multi-tasking between in-depth learning of the foundations of cognition and behavior, while checking their 140-character status updates on Facebook or Twitter. If you believe that you are one of these gifted individuals, please be considerate of the fact that checking non-course-related materials on your laptop will be distracting to those sitting around you.

### ***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, as we'll be happy to help!

**Required Textbook**

Gazzaniga, Michael S. (2016). "Psychological Science". W.W. Norton & Company. ISBN: 9780393937497

**Teaching Assistants: TBD**

**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.

<i>Date(s)</i>	<i>Lecture Topic(s)</i>	<i>Reading(s)</i>
Sept 5	Introduction/Overview of course	
Sept 10, 12	Introduction to Psychology and Research Methods Introduction to Nervous System	Chapters 1, 2
Sept 17, 19	Nervous System and its components: neuroanatomy mechanisms of action	Chapter 3
Sept 24, 26	Consciousness: circadian rhythm modulations associated with neuropharmacology  Sensation: psychophysics	Chapters 4, 5
Oct 1, 3	Sensation: sensory transduction  <b><u>Exam 1 on October 3</u></b>	
Oct 8, 10	Perception: visual attention	Chapter 5
Oct 15, 17	Learning: conditioning, observational learning biological basis of learning	Chapter 6

Oct 22, 24	Memory: models of human memory  Memory: biological basis of human memory  <b><u>Paper 1 due at the beginning of class on October 24</u></b>	Chapter 7
Oct 29, 31	Language and Intelligence: elements of directive thinking  Human Development: physical, cognitive social patterns of the lifespan	Chapters 8, 9
Nov 5, 7	<b><u>No class on November 5</u></b>  <b><u>Non-cumulative Exam 2 on November 7</u></b>	
Nov 12, 14	Motivation: biological motivators, intrinsic vs extrinsic  Emotion: physiological aspects of emotions	Chapter 10
Nov 19, 21	Health and Well Being: stress, behaviors associated with coping Personality: the big five, traits  <b><u>No class on November 21</u></b>	Chapters 11, 13
Nov 26, 28	Social Psychology: group behaviors, group influences	Chapter 12
Dec 3, 5	Psychological Disorders: classifications, Diagnostic and Statistical Manual of Mental Disorders (DSM)	Chapter 14
Dec 10	Psychological Disorders: treatments of symptoms  <b><u>Paper 2 due at the beginning of class on December 10</u></b>	Chapter 15
TBD	<b><u>Non-cumulative Exam 3</u></b>	

*Syllabus is subject to revision. Updates will be posted on CourseWorks.*