**THE SCIENCE OF PSYCHOLOGY**  
**Columbia University**  
**PSYC UN1001 Section 002 (Fall 2022)**  
**Location**: tbd  
**Days/Time**: MW 1:10pm – 2:25pm

*If you are sick and cannot attend class in person, you are****required****to first contact your advisor, then email*[*tbd.*](mailto:tapsych2021@gmail.com) *If you test positive for COVID-19, you are also required to email*[*covidtesttrace@columbia.edu*](mailto:covidtesttrace@columbia.edu)*. The contact tracing team will follow up and provide all necessary notifications.*

**Instructor Information**                                     
**Tina Kao**, PhD                                   
Email: tk2436@columbia.edu                              
Office location: in person: 500 Schermerhorn  
Office hours: tbd

**TA Information**  
tbd

For ***course related inquiries only***(questions/clarifications on learning materials), please attend office hours. Also, the TAs will also be leading review sessions prior to each exam, so please attend the review sessions. You can post the questions you would like to be addressed for the review sessions here. *Do not* email individual TAs for course related inquiries.

For ***personal related inquiries only*** (health related issues/absences/administrative inquiries), please email [tbd](mailto:tapsych2021@gmail.com). Note that you will most likely have to first inform your advisor of these inquiries before we can take any actions. *Do not* email individual TAs for personal related inquiries.

**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

The textbook is also on reserve. Click on "Library Reserves" on the course’s website in Canvas.

**Course Description**

Why do we as humans think and behave the way we do? What are the biological mechanisms associated with these processes of cognitions and behaviors? This course will seek answers to these questions. The Science of Psychology refers to the many different academic areas of study within the field of Psychology. Topics ranging from biological perspectives, to cognitive and social perspectives, will be emphasized and discussed. Past and recent advances of research within areas such as neuroscience, learning, memory, motivation, sensation and perception, development, social psychology, personality, health, abnormal and clinical psychology will be discussed. Throughout the course, we will emphasize Psychology as an intellectual process to uncovering new ideas.

**Course Objectives**

The objectives for each student taking this course may be a bit different. Whether you are taking this course because you are interested in the many fields of Psychology and Neuroscience, this course will provide you with fundamental understandings of the brain, mind and behavior. Other students may be taking this course to fulfill a requirement for science. For those of you that are part of this cohort, you may find that quite a bit of the Science of Psychology applies to other academic fields, including those that you are interested in, and/or pursuing.  Finally, many of you may be on a pre-health track towards a future in medicine. As you may well know, questions pertaining to academic Psychology are now incorporated as part of the MCAT. Though we will do our best to address MCAT related questions, it is our hope that you will find the course in its entirety to be an engaging and enriching experience.

**Grading and Requirements**

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

**Exams**

The exams will be opportunities to demonstrate how well you have learned the material covered in the course/readings. For the exams, you will be responsible for materials presented 1) during lectures, and 2) for the assigned readings of the textbook. Majority of the questions on each exam will be derived from materials presented during lectures.

For the most part, the only acceptable reason for missing an exam is due to illness/emergency. If such a situation should arise, a make-up exam may be administered after receiving permission from your advisor or dean, and from your instructor. If you are unable to take an exam during the day/time it is scheduled, first inform your advisor or dean, then inform us: email address [tbd](mailto:tapsych2021@gmail.com).

Note that having multiple exams on a single day, or having conflicts due to vacation plans, are not acceptable reasons for scheduling a make-up exam.

**Experimental Participation**

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 [tbd](mailto:tapsych2021@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.

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. More specific guidelines and rubrics will be provided. Brief descriptions of the papers 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 date tbd. 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 your own research! 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.

**Academic Integrity**

Information on what constitutes violations of academic integrity can be found here, ([http://www.college.columbia.edu/academics/integrityLinks to an external site.](http://www.college.columbia.edu/academics/integrity)). Broadly speaking, academic integrity means presenting only your own work for your tests/quizzes/assignment(s). Taking credit for the work of others is a serious violation of the academic community, resulting in cheating or plagiarism. If either is the case, the student will receive a zero for the test/quiz/assignment, and the instructor will report the student to the University. That said, if you have any questions about how to appropriately cite another’s work, please contact the instructor or TA.

**Disability-Related Academic Accommodations**

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

**Dates, Lecture Topics and Assigned Readings**

You are required to complete the assigned readings ***before***the date of each lecture topic.

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| **Date** | **Lecture Topics** | **Assigned Readings** |
| September 07 | Introduction/Overview of Course |  |
| September 12, 14 | [Introduction to Psychology and Research Methods](https://courseworks2.columbia.edu/courses/133940/files/11842327?wrap=1)  Introduction to Nervous System | Chapters  1, 2 |
| September 19, 21 | Nervous System and its components: neuroanatomy  Nervous System and mechanisms of action | Chapter 3 |
| September 26, 28 | Consciousness: circadian rhythm, modulations associated with neuropharmacology  Consciousness continued | Chapter 4 |
| October 03, 05 | Sensation: sensory transduction  **Exam 1 on October 05 (including chapters 1-4 of textbook readings)**  *(materials presented for lecture on October 3rd will be covered for Exam 2*) | Chapter 5 |
| October 10, 12 | Lecture 8 Sensation continued and Perception  Lecture 9 Perception continued |  |
| October 17, 19 | Learning: conditioning  Learning continued: observational learning and biological basis of learning | Chapter 6 |
| October 24, 26 | Memory: models of human memory  Memory: biological basis of human memory | Chapter 7 |
| October 31  November 2 | Language and Intelligence: elements of directive thinking | Chapter 8 |
| November 07, 09 | No class on November 07  Intelligence and Human Development: physical, cognitive, social patterns of lifespan psychology  **Non-cumulative Exam 2 on November 9th (including chapters 5-9 of textbook readings)**  *(materials presented for lecture on November 9th will be covered for Exam 3*) | Chapter 9 |
| November 14, 16 | **Paper 1 due by 8am on Monday, November 14th**  Developmental Psychology continued and Motivation  Motivation continued and Emotions | Chapter 10 |
| November 21, 23 | Emotions continued and Health and Well Being: stress  **No class on November 23rd (Happy Thanksgiving!)** | Chapter 11 |
| November 28, 30 | Health and Well Being continued  Social Psychology: group behaviors and cognitions | Chapters  12, 13 |
| December 05, 07 | **Paper 2 due at the beginning of class on December 05**  Personality: the big five  Psychological Disorders | Chapters  14, 15 |
| December 12 | **Paper 2 due at the beginning of class on December 05**  Psychological Disorders continued | Chapters  14, 15 |
| tbd | **Non-cumulative Exam 3 (including chapters 10-15 of textbook readings)** |  |

This current syllabus is subject to revisions. If necessary, updates will be posted.