# NEUROSCIENCE AND BEHAVIOR

### The Psychology Department:

Department website: https://psychology.columbia.edu/

Office location: 406 Schermerhorn Hall

Office contact: 212-854-3608; info-psych@columbia.edu

Department Chair: Nim Tottenham, Ph.D.

Psychology Major and Concentration Advisors:

- Prof. Patricia Lindemann; pgl2@columbia.edu (Students with last names beginning A-F)
- Prof. Nora Isacoff; ni2237@columbia.edu (Students with last names beginning G-K)
- Prof. Katherine Fox-Glassman; kjt2111@columbia.edu (Students with last names beginning L-R)
- Prof. John Thorp; jnt2136@columbia.edu (Students with last names beginning S-Z)

Neuroscience and Behavior Major Advisors:

#### Psychology:

- Prof. Alfredo Spagna; <u>as5559@columbia.edu</u> (Students with last names beginning A-H);
- Prof. Sarah DeMoya; sed2182@columbia.edu (Students with last names beginning I-Q);
- Prof. Chris Baldassano; <u>cab2304@columbia.edu</u> (Students with last names beginning R-Z);

#### Biology:

- (CC): Dr. Erin Barnhart; eb3305@columbia.edu
- (GS): Prof. Deborah Mowshowitz; dbm2@columbia.edu

Co-Directors of Senior Thesis Advanced Research Program:

- · Prof. Lila Davachi; Id24@columbia.edu
- · Prof. Alfredo Spagna; as5559@columbia.edu

Preclinical Adviser: Prof. E'mett McCaskill; e.mccaskill@columbia.edu

Administrative Manager. Joanna Borchert-Kopczuk, 406 Schermerhorn Hall; 212-854-3940; jb2330@columbia.edu

Undergraduate Curriculum Assistant: Erin Murphy, 406 Schermerhorn Hall; 212-854-8859; psych-uca@columbia.edu

### The Study of Psychology

The <u>Department of Psychology</u> offers students a comprehensive curriculum in psychological science, including research methods, cognition, neuroscience, developmental, social, and clinical areas. The curriculum prepares majors for graduate education in these fields and also provides a relevant background for social work, education, medicine,

law, and business. Psychology course offerings are designed to meet the varying needs and interests of students, from those wishing to explore a few topics in psychology or to fulfill the science requirement, to those interested in majoring in <a href="Psychology">Psychology</a> or in <a href="Neuroscience">Neuroscience</a> and <a href="Behavior">Behavior</a>.

### **Student Advising**

The Department of Psychology offers a variety of advising resources to provide prospective and current undergraduate majors and concentrators with the information and support needed to successfully plan their programs. An overview of these resources is provided on the <a href="Psychology Undergraduate Advising Resources website">Psychology Undergraduate Advising Resources website</a>.

Students are encouraged to consult with Peer, Faculty, and Program Advisers as they plan their course of study in Psychology or Neuroscience and Behavior. Faculty and Peer Advisers are important contacts for general advice on class choices, research opportunities, and post-graduation plans. For definitive answers to questions regarding major requirements and other aspects of your degree, including transfer credit, current and prospective majors should consult their Program Adviser (Director of Undergraduate Studies) or the <u>Undergraduate Curriculum Assistant</u> in the departmental office. <u>Program Adviser assignments</u> and contact information are provided on the departmental website. For additional information about program, faculty, peer, and preclinical advising, please see the <u>Psychology Undergraduate Advising Resources website</u>.

#### **Enrolling in Classes**

#### **Major Requirement Checklist**

Prior to the start of their final semester, all seniors must submit a <u>Major Requirement Checklist</u> showing all major courses they have taken and those they plan to take. The Psychology department evaluates each checklist to determine whether or not the course plan completes the major requirements and then notifies the student accordingly. If the student's course plan changes, or if it does not satisfy the major requirements, a revised checklist must be submitted. Departmental approval of an accurate and up-to-date checklist will help ensure completion of all major requirements on time for graduation.

#### Non-Psychology Courses

Some courses offered outside of the Psychology departments can count toward major requirements (e.g., courses taken in the Statistics Department; cognate courses offered through Philosophy, Business, Law, etc.). A maximum of 2 such non-PSYC courses may be applied toward the major. Courses offered in the Barnard Psychology or Neuroscience departments do not count toward this limit.

#### **Overlapping Courses**

Students cannot receive credit for two courses—one completed at Columbia and one at another institution (including Barnard)—if those courses have largely overlapping content. For example, <a href="PSYC UN1001">PSYC UN1001</a>
THE SCIENCE OF PSYCHOLOGY is similar in content to introductory psychology courses offered at many other institutions, including Barnard; only one such course will receive credit. Similarly, <a href="PSYC UN2630">PSYC UN2630</a>
SOCIAL PSYCHOLOGY and <a href="PSYC BC1138">PSYC BC1138</a> Social Psychology have overlapping content; only one will receive credit. Please refer to the table of <a href="Overlapping Courses">Overlapping Courses</a> for a partial list of courses at Columbia and Barnard that are known to overlap.

#### **Preparing for Graduate Study**

Most graduate programs in psychology, including those in clinical psychology, require:

An undergraduate course in introductory psychology:

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PSYC UN1001	THE SCIENCE OF PSYCHOLOGY			
A course in statistics such as	one of the following:			
PSYC UN1610	STATISTCS-BEHAVIORL SCIENTISTS			
PSYC UN1660	Advanced Statistical Inference			
STAT UN1001	INTRO TO STATISTICAL REASONING			
STAT UN1101	INTRODUCTION TO STATISTICS			
STAT UN1201	CALC-BASED INTRO TO STATISTICS			
A laboratory course in research methods such as one of the following:				
PSYC UN1420	RESEARCH METHODS - HUMAN BEHAVIOR			
PSYC UN1450	RESEARCH METHODS - SOCIAL COGNITION # EMOTION			
PSYC UN1455	RESEARCH METHODS: SOCIAL/ PERSONALITY			
PSYC UN1490	RESEARCH METHODS - COGNITION/ DECISION MAKING			

Students should also take a variety of more advanced undergraduate courses and seminars. Students interested in PhD programs in any area of psychology are strongly encouraged to become involved in a research lab, and may wish to participate in the Senior Thesis Advanced Research program (STAR). To join STAR, students must apply by the early fall of their junior year.

Students interested in clinical psychology should obtain experience working in a community service program in addition to supervised individual research experience. Students should consult the department's pre-clinical adviser, <a href="Prof. E'mett McCaskill">Prof. E'mett McCaskill</a>, and attend the department's pre-clinical advising events for more information. Additional resources to help prepare students for graduate study in psychology, and for careers in clinical psychology, are available on the <a href="Department of Psychology">Department of Psychology</a>'s <a href="website">website</a>. Students may also sign-up for the <a href="preclinical advising listsery">preclinical advising listsery</a> to receive emails about events and relevant information.

## Coursework Taken Outside of Columbia Advanced Placement

The Psychology Department accepts a score of 5 on the AP Psychology exam, or a score of 7 on the Higher Level IB Psychology exam, to meet the Science of Psychology requirement. The AP/IB Psychology exam does not count as a course towards their program; students placing out of the Science of Psychology requirement in this way will need to take an additional course to fulfill the required number of courses for their program.

The College Board Advanced Placement (AP) statistics scores do not satisfy the statistics requirement. Students who have completed AP statistics may opt to take a more advanced statistics course to fulfill this requirement with the approval of one of the Psychology Program Advisors.

#### **Barnard College Courses**

A maximum of 5 courses counted toward the major may be from outside of the Columbia Psychology Department ("outside Columbia Psych" includes both Barnard and transfer courses, as well as courses in other departments including Statistics).

The table of <u>approved Barnard psychology courses</u> indicates which courses have been approved for specific requirements of the psychology major. To seek approval for a course not on the approved list to be applied to a specific requirement, students must contact their program advisor. All Barnard Psychology courses not on the approved list for a specific requirement may be applied as elective credit towards the 11 courses needed for the major requirements.

Barnard Lab courses do not count towards the Research Methods requirement of the Psychology Major or Concentration.

#### **Transfer Courses**

For a course taken outside of Columbia or Barnard to be able to count toward the Psychology Major or the Neuroscience & Behavior Major, the following must be true:

- The course should be substantially similar in content and/or learning objectives to one offered at Columbia.
- The course must have been approved for at least 3 points of credit by GS or CC.
- · The grade received must be a B- or better.
- · The course must have been taken for a grade (no Pass/Fail).
- The course must have been taken within the past 7 years.

If a course taken at another institution overlaps with a course taken at Columbia, only one will be applied towards the major. Please consult your Program Advisor if you are considering registering for a Columbia or Barnard course that is similar to a transfer course you plan to count toward your major.

#### Psychology Major

- Up to 3 transfer courses may be counted toward the Psychology
  Major. Approval of transfer credits on a student's Entrance Credit
  Report toward general requirements for the bachelor's degree does
  not grant approval of these credits toward the psychology major.
  Once your school has approved your transfer courses, you then need
  to confirm whether they can fulfill psychology requirements using the
  Major Requirement Substitution Form.
- Online or hybrid transfer courses may only be applied towards elective credit for the major. All transfer courses applied to specific major requirements (e.g., Introductory Psychology, Groups 1 – 3, etc.) must have been taken fully in person.
- Students who have completed an introductory psychology course at another institution should submit a Major Requirement Substitution Request (see procedure, below) to verify whether or not this course meets departmental standards to count towards the major. If transfer credit toward the major is not approved, the student must enroll in PSYC UN1001 or PSYC BC1001 to complete this major requirement.
- Statistics courses taken anywhere other than Columbia or Barnard may not count toward the major. Psychology majors will benefit from taking statistics here no matter how well they did in previous intro stats courses. If you are entering Columbia with extensive statistics coursework, your Program Advisor will help you find an appropriate advanced statistics course that can meet the Statistics Requirement of your major.

- The Psychology Department allows students to meet the Science of Psychology requirement with a score of 5 on the AP Psychology exam, or a score of 7 on the Higher Level IB Psychology exam.
   The AP/IB Psychology exam does not count as a course towards their program; students placing out of the Science of Psychology requirement in this way will need to take an additional course to fulfill the required number for their major.
- College Board Advanced Placement (AP) statistics exam scores may not be used to satisfy the statistics requirement of the Psychology Major.

#### **Psychology Concentration**

 The same guidelines for transferring courses to count toward the Psychology Major apply to the concentration, except that the maximum number of transfer courses that may count toward the concentration is 2.

#### Neuroscience & Behavior Major

- The Neuroscience & Behavior major is co-sponsored by the
  Department of Psychology and the Department of Biological
  Sciences. In addition to one year of college general chemistry, eleven
  courses are required to complete the Neuroscience & Behavior major.
  seven from the Department of Biological Sciences and five from
  the Department of Psychology (commonly referred to as P1-P5).
  Please, consult this page for additional information on the major
  requirements for the Neuroscience and Behavior Major.
- Students should consult their <u>Program Advisor</u> in the Psychology department before registering for psychology courses offered outside the department. With the Advisor's approval, a maximum of one psychology course from another institution, including Barnard, may be applied toward the psychology portion of the Neuroscience & Behavior major.
- Transfer courses taken in any modality (in-person, online, or hybrid) may be eligible to count toward P1. Transfer courses must have been taken fully in-person to be eligible to count for P2-P5.
- Students who wish to obtain credit for a course taken at Barnard
  or at another institution should complete the <u>Major Requirement</u>
  <u>Substitution Form</u>. To be approved for the major, the course should be
  substantially similar to one offered by this department and approved
  for this major, and the grade received must be a C- or better if from
  Barnard. or B- or better if from another institution.
- The Psychology Department allows students to meet the Science
  of Psychology requirement with a score of 5 on the AP Psychology
  exam, or a score of 7 on the Higher Level IB Psychology exam. The
  AP/IB Psychology exam does not count as a course for their program;
  students placing out of the Science of Psychology requirement in
  this way will need to take an additional course to fulfill the required
  number of courses for their major.
- Statistics courses taken anywhere other than Columbia or Barnard may not be counted toward the N&B major; AP Statistics also is not able to count toward the Statistics (i,e., P3) requirement. Students who have completed a statistics course elsewhere are encouraged to fulfill the P3 requirement either with an intermediate/advanced

stats course offered at Columbia, or by taking a PSYC UN1400-level research methods course.

#### **Study Abroad Courses**

Students planning to study abroad should consult with their Program Advisor (see above) prior to selecting their courses to see which ones are likely to be able to count toward major requirements. The official process of approving study-abroad courses to count toward your major can begin once you have completed your study abroad semester(s); however, your Program Advisor can give you their best guess for what can and cannot count.

Psychology majors: We recommend that you plan to meet most, if not all, of your major requirements while at Columbia. The Psychology Major is quite small in terms of course requirements, to allow for students to explore electives that complement their major coursework. This also allows for students studying abroad to spend that semester focusing on courses that you wouldn't have had the chance to take at Columbia.

Neuroscience & Behavior majors: It can be difficult to fit a study-abroad semester in to the N&B major because the Biology requirements include two year-long course sequences. N&B majors looking to study abroad should consult with their advisors as early as possible to see if it will be feasible to complete all of your major requirements.

#### **Summer Courses**

Any course offered by the Psychology Department during the Summer Session is applicable toward the same major requirement(s) as the corresponding course of that same number offered during the academic year. For instance, <u>PSYC S1001</u> The Science of Psychology meets the same major requirements as does <u>PSYC UN1001</u> THE SCIENCE OF PSYCHOLOGY.

#### **Core Curriculum Connections**

<u>PSYC UN1001</u> THE SCIENCE OF PSYCHOLOGY and any PSYC course in the 2200- or 2400-level may be used to partially fulfill the science requirement. 2600-level courses and some other psychology courses, including <u>PSYC BC1001</u> INTRODUCTION TO PSYCHOLOGY and other Barnard psychology courses, may not be used to fulfill the science requirement.

All 3- and 4-point courses numbered in the 32xx, 34xx, 42xx, and 44xx can partially fulfill the science requirement. For more detailed information regarding psychology courses that may be applied toward the science requirement, see the Core Curriculum section in this bulletin.

## Undergraduate Research and Senior Thesis

All qualified students are welcome to apply to join a research lab and contribute to ongoing projects. Students may volunteer to work in a lab, register for supervised individual research (PSYC UN3950 Supervised Individual Research), or participate in the department's Senior Thesis Advanced Research (STAR) Program. Information on faculty research is available on the departmental website. Students are advised to read about research laboratories on faculty lab sites and visit the professor's office hours to discuss opportunities. At the beginning of the fall term, the department also hosts a Lab-Preview event for students to learn about research opportunities for the upcoming semester.

#### **Undergraduate Research in Courses**

No more than 4 points of <u>PSYC UN3950</u> Supervised Individual Research or <u>PSYC UN3920</u> HONORS RESEARCH may be taken in any one term, and no more than 2 courses' worth (8 points total) of research and field work courses may be applied toward the major. "Research and field work courses" include: <u>PSYC UN3950</u> SUPERVISED INDIVIDUAL RESEARCH, <u>PSYC BC3466</u> FIELD WORK # RESEARCH SEMINAR: TODDLER CENTER, <u>PSYC BC3473</u> CLINICAL FIELD PRACTICUM, <u>PSYC BC3599</u> Senior Research Seminar and <u>PSYC BC3599</u> Individual Projects. Research courses must be taken for 3 or 4 points in order to count toward the major. (See above for further restrictions on applying Barnard courses toward the psychology major).

#### **Senior Thesis Coursework and Requirements**

Students with strong interests in psychological/neuroscientific research are encouraged to apply for admission to the Psychology Department's Psych/Neuro Senior Thesis Advanced Research (STAR) program in the fall of their junior year or the equivalent, such that they will be able to participate in the three consecutive semesters (spring - fall - spring) that are required in the program.

Important: Students will need to confirm that a professor has agreed to mentor them before being admitted into the program. Therefore, interested applicants should reach out to potential mentors to find a lab placement before applying. Tip: The best way to ensure finding a mentor is to get involved in that mentor's research before asking if they can provide mentoring/supervision on your thesis. Please read through all the information below before submitting your application.

Students interested in engaging in a Psych/Neuro Senior Thesis:

The series includes:

- Enrolling in a 3-semester Senior Thesis Advanced Research series, which includes a weekly seminar and research commitment, that must occur consecutively in your Junior year spring semester and Senior year (fall & spring), or equivalent [NOTE: this research course includes performing intensive, independent research with a lab mentor, writing a final thesis, and giving an oral presentation of the thesis at the end of the 3rd semester]
- Enrolling in a one-semester methods course (PSYC UN1920, UN1420/21, UN1450/51, UN1455/56, UN1490/91) in any semester during undergrad (i.e., before or during the series). Students are strongly encouraged to complete this methods training during or before the spring of their junior year (or equivalent).

The application is due in mid fall, and decisions are communicated in time for admitted students to register to begin Psych/Neuro Senior Thesis Advanced Research-related classes in the spring.

The application process comprises the following steps:

1. Identifying a lab sponsor. If you think you might be interested in applying, you should start reaching out to labs that you're interested in well in advance of the application deadline to see if they might have openings for research assistants and if they'd be willing to mentor you in your research. Keep in mind that mentoring a student is a significant commitment on the part of a professor, and so it may be difficult to identify a professor who can provide mentorship. Successful applicants typically demonstrate how their own research interests fall in line with those of their proposed sponsor and attest that their faculty member/PI has agreed to sponsor them. Once you

- have secured a position in a lab, you and your mentor will need to fill out the mentor agreement form.
- Complete the online application: The application will be made available on our psychology department <u>website</u>, and comprises a few relatively short questions asking students to describe their previous coursework and research-related experiences and to write about their intended research interests.

#### **Undergraduate Research Outside of Courses**

Most students who work in psychology labs do so either on a volunteer basis or as a paid Research Assistant. See <a href="here">here</a> for more information on getting involved in a psychology lab.

### **Department Honors and Prizes**

All students aspiring to graduate with Academic Honors must enroll in the Psychology Department's Psych/Neuro Senior Thesis Advanced Research (STAR) program. However, acceptance to and participation in this program does not automatically result in earning academic honors (see requirements for academic honors below).

Note the students majoring in Neuroscience & Behavior may earn academic honors through the Department of Biological Sciences instead. (Please check their website for more details on that process.)

#### **Department Honors**

The Psych/Neuro Senior Thesis Advanced Research program is open to students majoring in Psychology or Neuroscience & Behavior and includes the following:

Senior Thesis Advanced Research Seminar (<u>UN3930</u>): This is a two-hour, 1-4 credit course that meets biweekly, during which students present and discuss their ongoing research. Students in the course also attend the <u>Psychology Department's Colloquium Series</u>, which features researchers from outside the Department speaking on a variety of topics in Psychology/Neuroscience. The seminar and colloquia always take place on Wednesdays from 4:10 - 6:00 p.m. Students in the Psych/Neuro Senior Thesis Advanced Research program enroll in this course during the spring of their junior year and during the fall and spring of their senior years, or the equivalent.

Senior Thesis Research: Starting in the spring of their junior year and continuing through senior year, all students in the Psych/Neuro Senior Thesis Advanced Research program conduct research under the supervision of a Psychology Department faculty member or a faculty member/principal investigator in a psychology- or neuroscience-focused lab outside the department, including at Barnard College, the Zuckerman Mind Brain Behavior Institute, Columbia Business School, Columbia University Irving Medical Center, and other research institutions in the area.

Research Methods Course: To fulfill this requirement, students should complete a methods course (PSYC UN1920 The How-To's of Research; PSYC UN1420/21 Research Methods: Human Behavior; PSYC UN1450/51 Research Methods: Social Cognition & Emotion; PSYC UN1455/56 Research Methods: Social & Personality Psychology; PSYC UN1490/91 Research Methods: Cognition & Decision-making).

Senior Thesis: Students in the Psych/Neuro Senior Thesis Advanced Research program complete an original research project under the supervision of their faculty advisor. Senior students present their research orally at the last colloquium of the Spring term, and also submit a written senior thesis.

Eligibility for Departmental Honors:

Students participating in the Psych/Neuro Senior Thesis Advanced Research program are also eligible to receive academic honors when they graduate, provided they 1) complete all components of the program, 2) earn a GPA in the major of 3.6 or higher at the time of graduation, and 3) are recommended by the Psychology department faculty. Please note that academic honors can be awarded to no more than 10% of the graduating class each year, so while only students who have participated in this senior thesis research intensive are eligible to receive academic honors, not everyone in the Senior Thesis Advanced Research program will receive academic honors.

### Other Important Information

**Email Communication** 

The department maintains an e-mail distribution list with the UNIs of all declared majors and concentrators. Students are held responsible for information sent to their Columbia e-mail addresses. Students should read these messages from the department regularly and carefully. They are intended to keep students informed about deadlines, requirements, events, and opportunities. Prospective majors or concentrators who would like to be added to the e-mail distribution list should contact the Undergraduate Curriculum Assistant in the departmental office.

#### Online Information

The Department of Psychology <u>website</u> provides access to a wide variety of information for majors and prospective majors. Among other useful resources, students will find syllabi posted for most lecture and lab courses and for many advanced seminars. Students should read the on-line course syllabi prior to registering for psychology courses. For assistance in finding all necessary resources, students should contact the undergraduate curriculum assistant (<u>psych-uca@columbia.edu</u>).

Grade Requirements for the Major

A grade of C-, or higher, must be earned and revealed on your transcript in any Columbia or Barnard course — including the first — that is used to satisfy the major or concentration requirements.

Courses taken on a Pass/D/Fail basis may not be used to satisfy the major or concentration requirements unless the grade of P is uncovered by the Registrar's deadline. Students may petition to have their P/D/F grades uncovered after the registrar's deadline for the following courses only: PSYC UN1001 Science of Psychology, and PSYC UN1610 Introductory Statistics for Behavioral Scientists.

Courses taken for a P grade may not be used to satisfy the major or concentration requirements, except for P grades earned in the Spring 2020 semester, and during semesters when CC and GS enact exceptions allowing P grades to count for major requirements.

### **Professors**

Dima Amso Niall Bolger Lila Davachi Geraldine Downey William Fifer (Psychiatry, Pediatrics) Norma Graham Carl Hart Tory Higgins
Donald C. Hood
Nikolaus Kriegeskorte
Janet Metcalfe
Kevin Ochsner (Chair)
Rae Silver (Barnard)
Daphna Shohamy
Herbert Terrace
Nim Tottenham
Sarah M.N. Woolley

#### **Associate Professors**

Jon Freeman Valerie Purdie-Greenaway Randy Auerbach (Psychiatry)

#### **Assistant Professors**

Mariam Aly Christopher Baldassano Larisa Heiphetz Bianca Marlin Sarah Canetta (Psychiatry) Yunglin Gazes (Neurology)

### **Lecturers in Discipline**

Katherine Fox-Glassman Patricia Lindemann Caroline Marvin Alfredo Spagna

### **Adjunct Faculty**

Usha Barahmand Jennifer Blaze Helen Brew Jeffrey Cohen Irit Felsen David Friedman Hannah Hoch Nora Isacoff Trenton Jerde Tina Kan Svetlana Komissarouk E'mett McCaskill Michele Miozzo Michael Naft Jenna Reinen Svetlana Rosis Ayanna Sorett

## **Guidance for Undergraduate Students in the Department**

Majors and concentrators in psychology and majors in neuroscience and behavior should begin planning a program of study as early as possible. All necessary forms and information are available in <a href="Program Planning Tips">Program Planning Tips</a>. All majors and concentrators in <a href="Psychology">Psychology</a> and majors in <a href="Neuroscience and Behavior">Neuroscience and Behavior</a> should complete a <a href="Major Requirement">Major Requirement</a> Checklist (MRC) before consulting a program adviser to discuss program plans. At minimum, all students must submit a <a href="Major Requirement">Major Requirement</a> Checklist prior to the start of their final semester, so that graduation

eligibility can be certified. Once the MRC is submitted, the Undergraduate Curriculum Assistant and the DUS's will review your curriculum plans and advise if changes need to be made.

#### **Program Planning for all Students**

The department's <u>program goals</u> start with the development of a solid knowledge base in psychological science. Consistent with the value psychology places on empirical evidence, courses at every level of the curriculum nurture the development of skills in research methods, quantitative literacy, and critical thinking, and foster respect for the ethical values that undergird the science of psychology.

Most of these program goals are introduced in PSYC UN1001 THE SCIENCE OF PSYCHOLOGY, the recommended first psychology course required for all majors that satisfies the prerequisite for most 2000level courses. These goals are extended and reinforced in our statistics (1600-level) and research methods (1400-level) research methods courses, as well as in the 2000-level lecture courses and 3000- and 4000-level seminars. Each of the 2000-level lecture courses enables students to study systematically, and in greater depth, one of the content areas introduced in PSYC UN1001 THE SCIENCE OF PSYCHOLOGY. These lecture courses are the principal means by which psychology majors satisfy the distribution requirements, ensuring not only depth but also breadth of coverage across three central areas of psychology: (1) perception and cognition, courses in the 2200s, (2) psychobiology and neuroscience, courses in the 2400s, and (3) social, personality, and abnormal psychology, courses in the 2600s. To complete the major, students take one or more advanced seminars and are encouraged to participate in supervised research courses, where they have the opportunity to explore research questions in depth and further develop their written and oral communication skills.

#### **Course Numbering Structure**

Course numbers reflect the structure of the Psychology curriculum:

- The 1000-level comprises introductions to psychology, introductory research methods courses, and statistics. PSYC UN1001 THE SCIENCE OF PSYCHOLOGY is an introductory course with no prerequisites, which can serve as the prerequisite for most of the 2000-level courses. PSYC UN1021 Science of Psychology. Explorations and Applications is an alternative version of PSYC UN1001 THE SCIENCE OF PSYCHOLOGY and fulfills the same requirements. The 1400s contain the research methods laboratory courses, and the 1600s contain statistics courses; these two course types are designed to prepare students to be able to understand, critique, and conduct the types of research found in many psychology and neuroscience labs.
- The 2000-level comprises lecture courses that are introductions to areas within psychology; most require <u>PSYC UN1001</u> THE SCIENCE OF PSYCHOLOGY as a prerequisite.
- The 3000-level comprises more advanced and specialized undergraduate courses; most are given in a seminar format and require instructor permission.
- The 3900s are the courses providing research opportunities for undergraduates.
- The 4000-level comprises advanced seminars suitable for both advanced undergraduates and graduate students, and require instructor permission.

Subcategories within the 2000-, 3000-, and 4000-levels correspond to the three groups in our distribution requirement for undergraduate Psychology majors:

- 1. Perception and cognition (2200s, 3200s, and 4200s),
- 2. Psychobiology and neuroscience (2400s, 3400s, and 4400s), and
- Social, personality, and abnormal psychology (2600s, 3600s, and 4600s).

Additionally, we designate Integrative and Applied courses using x800s (e.g., GU4880) and Advanced Topics in Psychology Research using the x900s (e.g., UN1910, UN1920, UN1930, UN1990, GU4930)

Note that Barnard psychology courses do not follow the same numbering scheme.

#### **Guidance for First-Year Students**

Students with no prior psychology coursework should start by taking PSYC 1001 The Science of Psychology. PSYC 1001 or an equivalent introductory psychology course is a prerequisite to almost every other PSYC course, with the exception of PSYC 2630 Social Psychology.

Students who have taken an introductory psychology course may enroll in any PSYC course for which they meet the prerequisites. The best courses for students just starting out are a statistics course (PSYC 1610 is recommended) or any of the 2000-level PSYC lecture courses.

#### **Guidance for Transfer Students**

Approval of transfer credits on a student's Entrance Credit Report toward general requirements for the B.A. degree does not grant approval of these credits toward the psychology major. Students must apply for written approval of transfer credit towards the major by submitting the <u>Major Requirement Substitution Form</u> and supporting documentation. This form, along with additional information about transfer credits can be found on the <u>Transfer Credit page of our website</u>.

Requirements for Transfer Courses

For a course taken outside of Columbia or Barnard to be able to count toward the Psychology Major or the Neuroscience & Behavior Major, the following must be true:

- The course should be substantially similar in content and/or learning objectives to one offered at Columbia.
- The course must have been approved for at least 3 points of credit by GS or CC.
- The grade received must be a B- or better.
- The course must have been taken for a grade (no P grades).
- The course must have been taken within the past 7 years.
- If a course taken at another institution overlaps with a course taken at Columbia, only one will be applied towards the major. Please consult your Program Advisor if you are considering registering for a Columbia or Barnard course that is similar to a transfer course you plan to count toward your major.

#### **Psychology Major**

Up to 3 transfer courses may be applied toward the psychology major. Any transfer courses thus applied count toward the limit of 5 courses from outside the Columbia Psychology Department.

Students who have completed an introductory psychology course at another institution should submit a Major Requirement Substitution Request (see procedure, below) to verify whether or not this course meets departmental standards to count towards the major. If transfer credit toward the major is not approved, the student must enroll in PSYC UN1001 or PSYC BC1001 to complete this major requirement.

Statistics courses taken anywhere other than Columbia or Barnard may not count toward the major. Psychology majors will benefit from taking statistics here no matter how well they did in previous intro stats courses. If you are entering Columbia with extensive statistics coursework, your Program Advisor will help you find an appropriate advanced statistics course that can meet the Statistics Requirement of your major.

To count transfer courses toward a specific requirement of the major (e.g., Science of Psych; one of the Distribution Requirements), courses must have been taken fully in-person. Transfer courses taken online (or in hybrid format) are only eligible to count toward the elective portion of the major.

The Psychology Department allows students to meet the Science of Psychology requirement with a score of 5 on the AP Psychology exam, or a score of 7 on the Higher Level IB Psychology exam. The AP/IB Psychology exam does not count as a course or towards their program; students placing out of the Science of Psychology requirement in this way will need to take an additional course to fulfill the required number of courses for their major.

College Board Advanced Placement (AP) statistics exam scores may not be used to satisfy the statistics requirement of the Psychology Major.

#### **Psychology Concentration**

The same guidelines for transferring courses to count toward the Psychology Major apply to the concentration, except that the maximum number of transfer courses that may count toward the concentration is 2.

#### Neuroscience & Behavior Major

The Neuroscience & Behavior major is co-sponsored by the Department of Psychology and the Department of Biological Sciences. In addition to one year of college general chemistry, eleven courses are required to complete the Neuroscience & Behavior major: seven from the Department of Biological Sciences and five from the Department of Psychology (commonly referred to as P1-P5). Please, consult <a href="this page">this page</a> for additional information on the major requirements for the Neuroscience and Behavior Major.

Students should consult their <u>Program Advisor</u> in the Psychology department before registering for psychology courses offered outside the department. With the Advisor's approval, a maximum of one psychology course from another institution, including Barnard, may be applied toward the psychology portion of the Neuroscience & Behavior major. Transfer courses taken in any modality (in-person, online, or hybrid) may be eligible to count toward P1. Transfer courses must have been taken fully inperson to be eligible to count for P2-P5. Students who wish to obtain credit for a course taken at Barnard or at another institution should complete the <u>Major Requirement Substitution Form</u>. To be approved for the major, the course should be substantially similar to one offered by

this department and approved for this major, and the grade received must be a C- or better if from Barnard, or B- or better if from another institution.

The Psychology Department allows students to meet the Science of Psychology requirement with a score of 5 on the AP Psychology exam, or a score of 7 on the Higher Level IB Psychology exam. The AP/IB Psychology exam does not count as a course or toward a student's points total for their program; students placing out of the Science of Psychology requirement in this way will need to take an additional course to fulfill the required number for their major.

Statistics courses taken anywhere other than Columbia or Barnard may not be counted toward the N&B major; AP Statistics also is not able to count toward the Statistics (i,e., P3) requirement. Students who have completed a statistics course elsewhere are encouraged to fulfill the P3 requirement either with an intermediate/advanced stats course offered at Columbia, or by taking a PSYC UN1400-level research methods course.

# Undergraduate Programs of Study Guidelines for all Psychology Majors, Concentrators, and Interdepartmental Majors

#### **Double Majors/Concentrations**

All students attempting to complete double majors, double concentrations, or a combination of a major and a concentration should consult the college rules for double counting of <u>courses</u>.

#### **Overlapping Courses**

Students cannot receive credit for two courses—one completed at Columbia and one at another institution (including Barnard)—if those courses have largely overlapping content. For example, PSYC UN1001 THE SCIENCE OF PSYCHOLOGY is similar in content to introductory psychology courses offered at many other institutions, including Barnard; only one such course will receive credit. Similarly, PSYC UN2630 SOCIAL PSYCHOLOGY and PSYC BC1138 Social Psychology have overlapping content; only one will receive credit. Please refer to the table of Overlapping Courses for a partial list of courses at Columbia and Barnard that are known to overlap.

#### **Grade Requirements for the Major**

A grade of C- or higher must be earned and revealed on the transcript in any Columbia or Barnard course, including the first, that is used to satisfy the major requirements. The grade of P is not accepted for credit towards the Psychology major, Psychology concentration, or Neuroscience and Behavior major. Courses taken on a Pass/D/Fail basis may not be used to satisfy the major or concentration requirements unless the grade of P is uncovered by the Registrar's deadline. Students may petition to have their P/D/F grades uncovered after the registrar's deadline for the following three courses only: PSYC UN1001 Science of Psychology, PSYC UN1010 Mind, Brain, & Behavior (no longer offered), and PSYC UN1610 Introductory Statistics for Behavioral Scientists. Courses taken for a P grade may not be used to satisfy the major or concentration requirements, except for P grades earned in the Spring 2020 semester.

#### Major Requirement Checklist

Prior to the start of their final semester, all seniors must submit a <u>Major Requirement Checklist</u> showing all major courses they have taken and those they plan to take. The Psychology department evaluates each checklist to determine whether or not the course plan completes the major requirements and then notifies the student accordingly. If

the student's course plan changes, or if it does not satisfy the major requirements, a revised checklist must be submitted. Departmental approval of an accurate and up-to-date checklist will help ensure completion of all major requirements on time for graduation.

#### **Major in Psychology**

Please read <u>Guidelines for all Psychology Majors, Concentrators, and Interdepartmental Majors</u> (p. ) above.

Major Requirements

Students must complete 11 courses in Psychology or an approved cognate discipline. To count toward the major, a course must be taken for 3 or more points. At least 6 of the 11 courses must be in the Columbia Psychology Department.

These 11 courses must include:

- 1. Introductory Psychology Course
- 2. One Statistics course
- 3. One Research Methods course
- 4. One Group I Course
- 5. One Group II Course
- 6. One Group III Course
- 7. One course meeting the Seminar requirement
- 8. One course meeting the integrative/applied Special Elective requirement
- 9. Enough PSYC electives to complete 11 courses

Each course may fulfill only one of these major requirements. See below for details on each of these requirements.

The Introductory Psychology Course

• PSYC UN1001 THE SCIENCE OF PSYCHOLOGY

A Statistics Course

Select one of the following:

- PSYC UN1610 STATISTCS-BEHAVIORL SCIENTISTS
- PSYC UN1660 Advanced Statistical Inference
- STAT UN1001 INTRO TO STATISTICAL REASONING
- <u>STAT UN1101</u> INTRODUCTION TO STATISTICS (formerly STAT W1111)
- STAT UN1201 CALC-BASED INTRO TO STATISTICS (formerly STAT W1211)

A Research Methods Course

Select one of the following:

- PSYC UN1420 RESEARCH METHODS HUMAN BEHAVIOR
- PSYC UN1450 RESEARCH METHODS SOCIAL COGNITION # EMOTION
- PSYC UN1455 RESEARCH METHODS: SOCIAL/PERSONALITY
- PSYC UN1490 RESEARCH METHODS COGNITION/DECISION MAKING

Majors are strongly advised to complete the statistics and research methods requirements, in that order, by the end of their junior year. Students are advised to verify the specific prerequisites for research methods courses, most of which require prior completion of a statistics course.

#### **Distribution Requirement**

One course (3 points or more) must be taken from each of the following three groups (in addition to the introductory, statistics, and research methods courses described above):

- Group I—Perception and cognition: courses numbered in the 2200s, 3200s, or 4200s.
- Group II—Psychobiology and neuroscience: courses numbered in the 2400s, 3400s, or 4400s. Also <u>PSYC UN1010</u> Mind, Brain and Behavior (no longer offered).
- Group III—Social, personality, and abnormal: courses numbered in the 2600s, 3600s, or 4600s.

Research Methods courses do not fulfill any of the Group distribution requirements.

#### Seminar Requirement

Students must complete one course meeting the Seminar requirement. A seminar course must be taken for 3 or more points.

All courses offered through the Columbia Psychology Department and numbered in the 3200s, 3400s, 3600s, 4200s, 4400s, and 4600s count toward the seminar requirement. Not all Barnard courses taught in a seminar format fulfill this requirement—see Barnard Courses, below, for more information.

Seminars are usually taken in the junior and senior year as a culmination of the major program, but any students who have met the prerequisites and gain the instructor's permission to join the course may enroll. Enrollment in all seminar courses requires the instructor's permission; students are advised to contact instructors at least one month prior to registration to request seminar admission. Note that honors, senior thesis research intensive, and supervised individual research courses (PSYC UN3910 HONORS SEMINAR, PSYC UN3920 HONORS RESEARCH, PSYC UN3930 Senior Thesis Advanced Research Seminar, and PSYC UN3950 Supervised Individual Research) will not meet the seminar requirement.

For those completing the new major requirements, no course may be counted twice in fulfillment of the above major requirements: separate courses must be taken to fulfill the seminar requirement and each distribution group.

Special Elective

The Special Elective encompasses a wide range of courses: those that cut across and connect different sub-disciplines within psychology; those that integrate psychology with other disciplines; those that apply psychology to real-world problems; those that dig deeper into advanced statistics and methods topics; and those that offer hands-on experience with psychology research.

The courses listed <u>here</u> are pre-approved to count toward the Special Elective requirement. If you would like to count a course that does not appear on the list, please contact your <u>Program Advisor</u> prior to enrolling.

#### Electives

Additional psychology courses ("electives") must be taken for a total of

Once a student has met the specific requirements of the major, any other psychology or approved cognate courses that they take to complete the 11-course minimum are considered electives.

As described below, these may include a limited number of research courses, transfer courses, and Barnard psychology courses not approved for specific requirements.

No course may be counted twice in fulfillment of the above major requirements.

### Old Major Requirements (for students who entered Columbia prior to Fall 2020)

Students must complete 30 or more points to complete the Psychology Major. Those 30 points must include:

- 1. Introductory Psychology Course
- 2. One Statistics course
- 3. One Research Methods course
- 4. One Group I Course
- 5. One Group II Course
- 6. One Group III Course
- 7. One course meeting the Seminar requirement
- 8. Enough PSYC electives to complete 30 points

#### Major in Neuroscience and Behavior

Please read <u>Guidelines for all Psychology Majors, Concentrators, and Interdepartmental Majors</u> above.

The department cosponsors an interdepartmental major in neuroscience and behavior with the Department of Biological Sciences. For assistance in planning the psychology portion of the neuroscience and behavior major, refer to the <a href="Program Planning Tips website">Program Planning Tips website</a> and use the appropriate major requirement checklist.

No course may be counted twice in fulfillment of the biology or psychology requirements described below. Many graduate programs in neuroscience also require one year of calculus, one year of physics, and chemistry through organic.

#### **Required Courses**

In addition to one year of college general chemistry, eleven courses are required to complete the major—six from the Department of Biological Sciences and five from the Department of Psychology. For the definitive list of biology requirements, see the <u>Department of Biological Sciences</u> website.

\*NOTE: For students entering in Fall 2024 or later, two biology elective courses will be required. For students entering prior to Fall 2024, one biology elective course will be required.

#### **Required Chemistry Courses**

One year of college chemistry is required prior to taking Introductory Biology.

#### Required Biology Courses

- 1. BIOL UN2005 INTRO BIO I: BIOCHEM, GEN, MOLEC
- 2. BIOL UN2006 INTRO BIO II:CELL BIO, DEV/PHYS
- 3. BIOL UN3004 NEUROBIO I:CELLULAR # MOLECULR
- 4. BIOL UN3005 NEUROBIO II: DEVPT # SYSTEMS
- 5. Two additional 3000- or 4000-level biology course from a <u>list</u> <u>approved by the biology adviser</u> to the program. \*NOTE: For students entering in Fall 2024 or later, two biology elective courses will be required. For students entering prior to Fall 2024, one biology elective course will be required.\*

#### Required Psychology Courses

- 1. PSYC UN1001 THE SCIENCE OF PSYCHOLOGY
- PSYC UN2430 COGNITIVE NEUROSCIENCE or PSYC UN2450
  BEHAVIORAL NEUROSCIENCE or PSYC UN2470 Fundamentals of
  Human Neuropsychology
- 3. One statistics or research methods course from the following:
- PSYC UN1420 RESEARCH METHODS HUMAN BEHAVIOR
- PSYC UN1450 RESEARCH METHODS SOCIAL COGNITION # EMOTION
   PSYC UN1455 RESEARCH METHODS: SOCIAL/PERSONALITY
- PSYC UN1490 RESEARCH METHODS COGNITION/DECISION MAKING
- PSYC UN1610 STATISTCS-BEHAVIORL SCIENTISTS
- · PSYC UN1660 Advanced Statistical Inference
- · PSYC UN1920 The How-Tos of Research
- PSYC UN1950 Neuroscience Methods: Cells and Circuits
- STAT UN1101 INTRODUCTION TO STATISTICS (formerly STAT W1111)
- STAT UN1201 CALC-BASED INTRO TO STATISTICS (formerly STAT W1211)
- Please note, STAT UN1001 does not count towards the Neuroscience & Behavior major.

- 4. One additional 2000- or 3000-level psychology lecture course from the approved list <u>here</u>.
- \*Please make careful note of this list, as courses not listed here will not count towards the P4 requirement.
  - 5. One advanced psychology seminar from the approved list here

Note: Students wishing to use a seminar course not listed above to meet the P5 seminar requirement must contact their psychology adviser before enrolling to request permission for an exception. Generally speaking, permission for such exceptions is only granted when there is a compelling case related to the student's research or area of study. Students requesting permission to use a course not on this list must ensure that their substantive coursework in the seminar (generally their final paper) is on a neuroscience-focused topic.

**Exceptions to Biology Requirements** 

Any exceptions must be approved in advance by a biology adviser and students must receive an email notification of that approval. Students may substitute Barnard College courses only with prior permission from a Biology Department adviser.

#### A note on double counting and multiple programs

All students attempting to complete double majors, double concentrations, or a combination of a major and a concentration should consult the college rules for double counting of <u>courses</u>. The psychology department does not place additional restrictions on double counting. Students with questions about double counting should consult their academic advisor. Psychology program advisors do not advise about double counting.

Students may not double-major in both Psychology and Neuroscience & Behavior, since both of these programs are housed in the same department.

Because of the overlap between the Cognitive Science major and both Psychology and Neuroscience & Behavior, students should not plan to pursue a double major in those two programs.

#### Minor in Psychology

The Psychology Department does not currently offer any minors.

SEAS students pursuing a minor in Psychology should consult with their SEAS advisors; the Columbia Psychology Department does not administer that program.

## For students who entered Columbia in or before the 2023-24 academic year

#### **Concentration in Psychology**

Please read <u>Guidelines for all Psychology Majors, Concentrators, and Interdepartmental Majors</u> above.

**Concentration Requirements** 

Students must complete 7 courses in Psychology or an approved cognate discipline. To count toward the concentration, a course must be taken for 3 or more points. The following requirements must be met:

1. PSYC UN1001 THE SCIENCE OF PSYCHOLOGY

- 2. A Statistics or Research Methods course (<u>PSYC UN1610</u> STATISTCS-BEHAVIORL SCIENTISTS, <u>STAT UN1001</u> INTRO TO STATISTICAL REASONING, <u>STAT UN1101</u> INTRODUCTION TO STATISTICS, <u>STAT UN1201</u> CALC-BASED INTRO TO STATISTICS, or a Research Methods course in the PSYC 14xx's)
- 3. Either 3 courses in one group, or 1 course in each of the 3 groups: Group I Cognition & Perception; Group II Psychobiology & Neuroscience; Group III Social, Personality, & Abnormal
- 4. Additional elective courses in psychology to complete the 7-course requirement

Restrictions on research credits, Barnard credits, non-psychology courses, and transfer credits are modified from those of the psychology major as follows:

- No more than 2 transfer courses from other institutions can be applied toward the concentration.
- No more than 3 total courses from outside Columbia (Barnard and/or transfer) can be applied to the concentration.
- A maximum of 1 non-PSYC course can count toward concentration requirements (e.g., courses taken in the Statistics Department; cognate courses offered through Philosophy, Business, Law, etc.).
- No more than 1 semester of <u>PSYC UN3950</u> SUPERVISED INDIVIDUAL RESEARCH or other supervised research course (taken for 3 or 4 points) can count towards the concentration.

Except as noted above, other regulations outlined in the <u>Psychology Major section</u> regarding grades, transfer credits, and overlapping courses also apply toward the <u>Psychology Concentration</u>.

Old Concentration Requirements (for students entering Columbia prior to Fall 2020)

A <u>concentration in psychology</u> requires a minimum of 18 points, including <u>PSYC UN1001</u> THE SCIENCE OF PSYCHOLOGY or <u>PSYC UN1021</u> Science of Psychology. Explorations and Applications and courses in at least two of the three groups listed under "Distribution Requirement" for the psychology major.

Restrictions on research credits, Barnard credits, and transfer credits are modified from those of the psychology major as follows:

- Only 4 points total may be applied toward the concentration from research or field-work courses, including: <u>PSYC UN3950</u> Supervised Individual Research, <u>PSYC UN3920</u> HONORS RESEARCH <u>PSYC</u> <u>BC3466</u> FIELD WORK # RESEARCH SEMINAR: TODDLER CENTER, <u>PSYC BC3473</u> CLINICAL FIELD PRACTICUM, <u>PSYC BC3592</u> Senior Research Seminar, and <u>PSYC BC3599</u> Individual Projects;
- Only 5 points from Barnard (including <u>PSYC BC1001</u> INTRODUCTION TO PSYCHOLOGY) may be applied toward the concentration.
- Only 5 points total (including any Barnard points) from approved psychology courses taken at other institutions may be applied toward the concentration

Barnard Lab courses do not count towards the Research Methods requirement of the Psychology Major or Concentration.

#### PSYC UN1001 THE SCIENCE OF PSYCHOLOGY. 3.00 points.

CC/GS: Partial Fulfillment of Science Requirement Enrollment may be limited. Attendance at the first two class periods is mandatory.

Prerequisites: BLOCKED CLASS. EVERYONE MUST JOIN WAITLIST TO BE ADMITTED Broad survey of psychological science including: sensation and perception; learning, memory, intelligence, language, and cognition; emotions and motivation; development, personality, health and illness, and social behavior. Discusses relations between the brain, behavior, and experience. Emphasizes science as a process of discovering both new ideas and new empirical results. PSYC UN1001 serves as a prerequisite for further psychology courses and should be completed by the sophomore year

#### Spring 2025: PSYC UN1001

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Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 1001	001/11791	T Th 1:10pm - 2:25pm 501 Schermerhorn Hall	Patricia Lindemann	3.00	207/224
PSYC 1001	002/11792	T Th 10:10am - 11:25am 501 Schermerhorn Hall	John Thorp	3.00	198/225
PSYC 1001	AU1/18826	T Th 1:10pm - 2:25pm Othr Other	Patricia Lindemann	3.00	5/5
PSYC 1001	AU2/18827	T Th 10:10am - 11:25am Othr Other	John Thorp	3.00	4/5
Fall 2025: PSY	C UN1001				
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 1001	001/10370	T Th 1:10pm - 2:25pm Room TBA	Patricia Lindemann	3.00	0/189
PSYC 1001	002/10371	M W 1:10pm - 2:25pm Room TBA	Sarah DeMoya	3.00	0/189

#### PSYC UN1021 Science of Psychology: Explorations and Applications. 3.00 points.

UN1021 offers a broad introductory survey of psychological science, discussing relations between the brain, behavior, and experience, with regard to topics including: sensation and perception; learning, memory, language, and cognition; emotions and motivation; development, personality, health and well-being, and social behavior. The course emphasizes science as a process of discovering both new ideas and new empirical results – and the ways in which psychological research can be used to address real-world challenges

#### PSYC UN1420 RESEARCH METHODS - HUMAN BEHAVIOR. 4.00 points. Attendance at the first class is mandatory. Fee: \$70.

Prerequisites: PSYC W1001 or PSYC W1010, and a statistics course (PSYC W1610 or the equivalent), or the instructor's permission.

Prerequisites: PSYC UN1001 and a statistics course (PSYC UN1610 or the equivalent), or the instructor's permission. Corequisites: PSYC UN1421 Introduction to the techniques of research employed in the study of human behavior. Students gain experience in the conduct of research, including design of simple experiments, observation and measurement techniques, and the analysis of behavioral data

Spring 2025: PSYC UN1420							
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment		
PSYC 1420	001/11801	M 4:10pm - 6:00pm 614 Schermerhorn Hall	Patricia Lindemann	4.00	46/52		
Fall 2025: PS	C UN1420						
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment		
PSYC 1420	001/10372	M 4:10pm - 6:00pm	John Thorp	4.00	0/45		

#### PSYC UN1421 RESEARCH METHODS-HUM BEHAV LAB. 0.00 points.

Limited enrollment in each section.

Corequisites: PSYC UN1420 Corequisites: PSYC UN1420

Spring	2025:	PSYC	UN1421
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Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 1421	001/11809	M 6:10pm - 8:00pm 200b Schermerhorn Hall	Patricia Lindemann	0.00	16/20
PSYC 1421	002/11810	M 6:10pm - 8:00pm 200c Schermerhorn Hall	Patricia Lindemann	0.00	15/15
PSYC 1421	003/11814	T 2:10pm - 4:00pm 200c Schermerhorn Hall	Patricia Lindemann	0.00	15/15
Fall 2025: PSY	C UN1421				
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 1421	001/10373	M 6:10pm - 8:00pm 200b Schermerhorn Hall	John Thorp	0.00	0/15
PSYC 1421	002/10374	M 6:10pm - 8:00pm 200c Schermerhorn Hall	John Thorp	0.00	0/15
PSYC 1421	003/10375		John Thorp	0.00	0/15

#### PSYC UN1450 RESEARCH METHODS - SOCIAL COGNITION # EMOTION. 4.00 points.

Attendance at the first class is essential. Priority given to psychology majors. Fee: \$70.

Prerequisites: PSYC UN1001 or PSYC UN1010 PSYC W1001 or PSYC W1010, and a statistics course (PSYC W1610 or the equivalent), or the instructor's permission.

Corequisites: PSYC UN1451

An introduction to research methods employed in the study of human social cognition and emotion. Students gain experience in the design and conduct of research, including ethical issues, observation and measurement techniques, interpretation of data, and preparation of written and oral reports

#### Fall 2025: PSYC UN1450

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 1450	001/10377	M 10:10am - 12:00pm Room TBA	Kevin Ochsner	4.00	0/50

#### PSYC UN1451 RESEARCH METHODS - SOCIAL COGNITION # EMOTION -LAB. 0.00 points.

Limited enrollment in each section.

Corequisites: PSYC UN1450

An introduction to research methods employed in the study of human social cognition and emotion. Students gain experience in the design and conduct of research, including ethical issues, observation and measurement techniques, interpretation of data, and preparation of written and oral reports

#### Fall 2025: PSYC UN1451

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 1451	001/10378	W 10:10am - 12:00pm Room TBA	Kevin Ochsner	0.00	0/15
PSYC 1451	002/10379	W 10:10am - 12:00pm Room TBA	Kevin Ochsner	0.00	0/15
PSYC 1451	003/10380	W 12:10pm - 2:00pm Room TBA	Kevin Ochsner	0.00	0/15

### PSYC UN1455 RESEARCH METHODS: SOCIAL/PERSONALITY. 4.00 points.

Fee: \$70.

Prerequisites: PSYC UN1001 or PSYC UN1010 *PSYC W1001 or PSYC W1010*, and a statistics course (*PSYC W1610* or the equivalent), or the instructor's permission.

Corequisites: PSYC UN1456

Prerequisites: PSYC UN1001 or PSYC UN1010 and a statistics course (PSYC UN1610 or the equivalent), or the instructors permission. Corequisites: PSYC UN1456 Methodology and procedures of personality and social psychological research and exercises in data analysis and research design. Ethical issues in psychological research. Statistical concepts such as parameter estimation and testing, measurement reliability and validity, merits and limitations of correlational and experimental research designs, and empirical evaluation of theories

Spring 2025: PSYC UN1455

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 1455	001/11816	M 10:10am - 12:00pm 200b Schermerhorn Hall	Niall Bolger	4.00	32/35

#### ${\tt PSYC~UN1456~RESEARCH~METHODS:SOCIAL/PERSONALITY.~0.00~points.}$

Limited enrollment in each section.

Corequisite: PSYC UN1455

Spring 2025: PSYC UN1456

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 1456	001/11817	W 10:10am - 12:00pm 200b Schermerhorn Hall	Niall Bolger	0.00	18/15
PSYC 1456	002/11819	W 2:10pm - 4:00pm	Niall Bolger	0.00	14/15

### PSYC UN1490 RESEARCH METHODS - COGNITION/DECISION MAKING. 4.00 points.

Corequisites: PSYC UN1491

Corequisites: PSYC UN1491 Prerequisites: Science of Psychology (PSYC 1001) or Mind, Brain, - Behavior (PSYC 1010) or equivalent intro psych course, plus an introductory statistics course. Introduces research methods employed in the study of the cognitive and social determinants of thinking and decision making. Students gain experience in the conduct of research, including: design of simple experiments; observation and preference elicitation techniques; the analysis of behavioral data, considerations of validity, reliability, and research ethics; and preparation of written and oral reports. Note: Fee: \$70. Attendance at the first class is essential

### PSYC UN1491 RESEARCH METHODS - COGNITION/DECISION LAB. 0.00 points.

Prerequisites: (PSYC UN1001 or PSYC UN1010) and (PSYC UN1610 or

STAT UN1001 or STAT UN1101 or STAT UN1201)

Corequisites: PSYC UN1490

Prerequisites: PSYC UN1001 and (PSYC UN1610 or STAT UN1001 or STAT UN1101 or STAT UN1201) Or equivalent introductory psychology and statistics courses. Corequisites: PSYC UN1490 Required lab for PSYC UN1490

#### PSYC UN1610 STATISTCS-BEHAVIORL SCIENTISTS. 4.00 points.

Lecture and lab. Priority given to psychology majors. Fee \$70.

Prerequisites: PSYC UN1001 or PSYC UN1010 PSYC W1001 or PSYC W1010. Recommended preparation: one course in behavioral science and

knowledge of high school algebra. Coreguisites: PSYC UN1611

Prerequisites: PSYC UN1001 or PSYC UN1010 Recommended preparation: one course in behavioral science and knowledge of high school algebra. Corequisites: PSYC UN1611 Introduction to statistics that concentrates on problems from the behavioral sciences

#### Spring 2025: PSYC UN1610

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Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 1610	001/12985	T Th 10:10am - 11:25am 233 Seeley W. Mudd Building	Christopher Baldassano	4.00	49/45
Fall 2025: PSY	C UN1610				
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 1610	001/10382	T Th 11:40am - 12:55pm 200b Schermerhorn Hall	Katherine Fox- Glassman	4.00	0/40

#### PSYC UN1611 STATISTCS-BEHAV SCIENTISTS-LAB. 0.00 points.

Limited enrollment in each section.

Corequisites: PSYC UN1610

Corequisites: PSYC UN1610 Required lab section for PSYC UN1610

Spring 2025: PSYC UN1611

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment			
PSYC 1611	001/13859	Th 2:10pm - 4:00pm 200b Schermerhorn Hall	Christopher Baldassano	0.00	18/15			
PSYC 1611	002/13860	Th 4:10pm - 6:00pm 200b Schermerhorn Hall	Christopher Baldassano	0.00	17/15			
PSYC 1611	003/13862	Th 4:10pm - 6:00pm 200c Schermerhorn Hall	Christopher Baldassano	0.00	15/15			
Fall 2025: PSYC UN1611								
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Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment			
Course	Section/Call	Times/Location Th 4:10pm - 6:00pm 200c Schermerhorn Hall	Instructor  Katherine Fox- Glassman		Enrollment 0/15			
Course Number	Section/Call Number	Th 4:10pm - 6:00pm	Katherine Fox-	0.00				
Course Number PSYC 1611	Section/Call Number 001/10383	Th 4:10pm - 6:00pm 200c Schermerhorn Hall Th 4:10pm - 6:00pm	Katherine Fox- Glassman Katherine Fox-	0.00	0/15			

#### PSYC UN1910 Research Ethics in Psychology. 4 points.

Prerequisites: (PSYC UN1001) or

This course explores the ethical theory, principles, codes and standards applicable to research in psychology and the complexities inherent in ethical research practice.

#### PSYC UN1930 Behavioral Data Science. 4 points.

CC/GS: Partial Fulfillment of Science Requirement

This course covers the basic skills and knowledge needed to address psychological research questions using data science methods. Topics cover the full scope of a behavioral data science research project including data acquisition, data processing, and data analysis.

#### PSYC UN1990 Global Behavioral Science. 4.00 points.

This course builds on fundamentals of psychological and behavioral science by exploring reproducibility and replication on a global level. Students will learn from a wide range of studies and their real-world implications

#### PSYC UN2215 Cognition and the Brain. 3 points.

CC/GS: Partial Fulfillment of Science Requirement Not offered during 2023-2024 academic year.

Prerequisites: *PSYC W1001* or *PSYC W1010* (recommended) or the instructor's permission.

How mental activities – particularly human cognitive processes – are implemented in the brain, with some emphasis on methods and findings of neuroscience. Topics include long term and working memory, attention and executive processes, concepts and categorization, decision making, and language.

#### PSYC UN2220 COGNITION: MEMORY AND STRESS. 3.00 points.

CC/GS: Partial Fulfillment of Science Requirement Attendance at the first class is mandatory.

Prerequisites: PSYC UN1001 or PSYC UN1010 PSYC W1001 or PSYC

W1010, or the instructor's permission.

Prerequisites: PSYC UN1001 or PSYC UN1010 or the instructors permission. Memory, attention, and stress in human cognition Fall 2025: PSYC UN2220

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 2220	001/11135	M W 1:10pm - 2:25pm	Janet Metcalfe	3.00	0/75

#### PSYC UN2235 THINKING AND DECISION MAKING. 3.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: an introductory course in psychology.

Prerequisites: an introductory course in psychology. Models of judgment and decision making in both certain and uncertain or risky situations, illustrating the interplay of top-down (theory-driven) and bottom-up (data-driven) processes in creating knowledge. Focuses on how individuals do and should make decisions, with some extensions to group decision making and social dilemmas

#### Spring 2025: PSYC UN2235

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 2235	001/11826	T Th 11:40am - 12:55pm	Katherine Fox-	3.00	117/120
		501 Schermerhorn Hall	Glaceman		

#### PSYC UN2250 Evolution of Cognition. 3 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: PSYC UN1001 or PSYC UN1010 or PSYC W1001 or PSYC W1010, or the instructor's permission.

A systematic review of different forms of cognition as viewed in the context of the theory of evolution. Specific topics include the application of the theory of evolution to behavior, associative learning, biological constraints on learning, methods for studying the cognitive abilities of animals, levels of representation, ecological influences on cognition, and evidence of consciousness in animals.

#### PSYC UN2280 Developmental Psychology. 3.00 points.

CC/GS: Partial Fulfillment of Science Requirement Enrollment may be limited. Attendance at the first two classes is mandatory.

Prerequisites: PSYC UN1001 or PSYC UN1010 PSYC W1001 or PSYC

W1010, or the equivalent.

Prerequisites: PSYC UN1001 or PSYC UN1010 or the equivalent. Introduction to the scientific study of human development, with an emphasis on psychobiological processes underlying perceptual, cognitive, and emotional development

#### Fall 2025: PSYC UN2280

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 2280	001/10387	T Th 4:10pm - 5:25pm	Nim	3.00	0/150
		Room TBA	Tottenham		

#### PSYC UN2420 ANIMAL BEHAVIOR. 3.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: PSYC UN1001 or PSYC UN1010 or *PSYC W1001* or *PSYC W1001*, or a college-level biology course, or the instructor's permission. Introduction to behavioral systems, evolution of behavioral traits, and analysis of behavior. Topics include reproductive and social behavior, mating systems, competition, cooperation, communication, learning, development and the interplay of genes and environment.

#### PSYC UN2430 COGNITIVE NEUROSCIENCE. 3.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: PSYC UN1001 or

Prerequisites: PSYC UN1001 or equivalent introductory course in Psychology This course provides an in-depth survey of data and models of a wide variety of human cognitive functions. Drawing on behavioral, neuropsychological, and neuroimaging research, the course explores the neural mechanisms underlying complex cognitive processes, such as perception, memory, and decision making. Importantly, the course examines the logic and assumptions that permit us to interpret brain activity in psychological terms

#### Spring 2025: PSYC UN2430

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 2430	001/13711	T Th 1:10pm - 2:25pm 614 Schermerhorn Hall	Lila Davachi	3.00	97/120
Fall 2025: PS	YC UN2430				
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 2430	001/10388	M W 2:40pm - 3:55pm Room TBA	Alfredo Spagna	3.00	0/120

#### PSYC UN2440 Language and the Brain. 3 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: *PSYC W1001* or *PSYC W1010*, or the instructor's permission. Introduction to psychological research on human language and communication and to brain mechanisms supporting language processing. Topics include comprehension and production of speech sounds, words and sentences; reading and writing; bilingualism; communication behavior.

#### PSYC UN2450 BEHAVIORAL NEUROSCIENCE. 3.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: PSYC UN1001 or PSYC UN1010 PSYC W1001 or PSYC

W1010, or the instructor's permission.

Prerequisites: PSYC UN1001 or PSYC UN1010 or the instructors permission. Examines the principles governing neuronal activity, the role of neurotransmitter systems in memory and motivational processes, the presumed brain dysfunctions that give rise to schizophrenia and depression, and philosophical issues regarding the relationship between brain activity and subjective experience

Spring 2025: PSYC UN2450

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 2450	001/11829	M W 10:10am - 11:25am 614 Schermerhorn Hall	Sarah DeMoya	3.00	72/72

#### PSYC UN2460 DRUGS AND BEHAVIOR, 3.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: *PSYC W1001* or *PSYC W1010*, or the equivalent. Prerequisites: PSYC W1001 or PSYC W1010, or the equivalent. The effects of psychoactive drugs on the brain and behavior Fall 2025: PSYC UN2460

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 2460	001/11136	T Th 8:40am - 9:55am	Carl Hart	3.00	0/189
		Room TRA			

#### PSYC UN2470 Fundamentals of Human Neuropsychology. 3.00 points.

Fundamentals of Human Neuropsychology is an intermediate-level lecture course, which explores how the analysis of lesion patterns extended across brain networks has offered invaluable insights on the relationship between brain and behavior and deepened our understanding of the causal relationships between brain lesions and their clinical consequences

#### PSYC UN2480 The Developing Brain. 3 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: *PSYC W1001* or *PSYC W1010*, or the instructor's permission. Brain development across the life span, with emphasis on fetal and postnatal periods. How the environment shapes brain development and hence adult patterns of behavior.

#### PSYC UN2610 INTRODUCTION TO PERSONALITY. 3.00 points.

Prerequisites: an introductory psychology course.

A survey of the important methods, findings, and theories in the field of personality research.

#### Fall 2025: PSYC UN2610

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 2610	001/10390	T Th 10:10am - 11:25am Room TBA	Usha Barahmand	3.00	0/80

#### PSYC UN2620 ABNORMAL BEHAVIOR. 3.00 points.

Prerequisites: An introductory psychology course. Examines definitions, theories, and treatments of abnormal behavior

Spring	2025	PSYC	UN2620

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 2620	001/11831	F 1:10pm - 3:40pm 329 Pupin Laboratories	Jeffrey Cohen	3.00	76/100
Fall 2025: PS	YC UN2620				
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 2620	001/10391	F 1:10pm - 3:40pm	Jeffrey Cohen	3.00	0/150

#### PSYC UN2630 SOCIAL PSYCHOLOGY. 3.00 points.

Surveys important methods, findings, and theories in the study of social influences on behavior. Emphasizes different perspectives on the relation between individuals and society.

#### PSYC UN2640 INTRO TO SOCIAL COGNITION. 3.00 points.

Prerequisites: an introductory course in psychology or the instructor's permission.

Prerequisite: An introductory psychology course. An introduction to basic concepts in social cognition, an approach to understanding social judgment and behavior by investigating the underlying mental processes. Topics include attitudes, identity, and prejudice, among others

#### PSYC UN2650 INTRO TO CULTURAL PSYCHOLOGY. 3.00 points.

Prerequisites: none; some basic knowledge of social psychology is desirable.

A comprehensive examination of how culture and diversity shape psychological processes. The class will explore psychological and political underpinnings of culture and diversity, emphasizing social psychological approaches. Topics include culture and social cognition, group and identity formation, psychology of multiculturalism, stereotyping, prejudice, and gender. Applications to real-world phenomena discussed.

#### PSYC UN2670 Social Development. 3 points.

Prerequisites: *PSYC W1001* or *PSYC W1010*, or the equivalent. This lecture course introduces students to the study of typical human social development with a particular focus on genetic, familial and peer influences on the development of social behaviors during early childhood.

#### PSYC UN2690 Frontiers of Justice. 4.00 points.

Frontiers of Justice is designed to encourage students and equip them with the skills to become active and effective "Change Agents" within their academic institutions and larger communities. Oriented by the question, What does justice look like?, this course aims to raise political and social awareness and engagement with the challenges facing New York City and strengthen ties between Columbia University, disadvantaged communities, and city government agencies and community organizations. Through sharing ideas about how to make structural and systemic change in ways that integrate science, law, politics, history, narrative and community engagement, the course is intended to support students in working to break down racial and ethnic barriers and toward a more fair and just society

#### PSYC UN3270 COMPUT APPROACHES-HUMAN VISION. 3.00 points.

This course will be offered in Fall 2016.

Prerequisites: some background in psychology and/or neurophysiology (e.g., *PSYC W1001*, *PSYC W1010*, *PSYC W2230*, *PSYC W2450*; *BIOL W3004* or *BIOL W3005*) is desirable. See instructor if you have questions about your background. Some background in mathematics and computer science (e.g., calculus or linear algebra, a programming language) is highly recommended.

Prerequisites: some background in psychology and/or neurophysiology (e.g. PSYC UN1001, PSYC UN1010, PSYC UN2230, PSYC UN2450; BIOL UN3004 or BIOL UN3005) is desirable. See instructor if you have questions about your background. Some background in mathematics and computer science (e.g. calculus or linear algebra, a programming language) is highly recommended. Study of human vision-both behavioral and physiological data—within a framework of computational and mathematical descriptions. Please contact Prof. Graham by e-mail (nvg1@columbia.edu) if you are interested in this course

#### PSYC UN3280 Seminar In Infant Development. 3 points.

Prerequisites: a course in perception, cognition or developmental psychology, and the instructor's permission.

Analysis of human development during the first year of life, with an emphasis on infant perceptual and cognitive development.

### PSYC UN3290 Self: A Cognitive Exploration (Seminar). 4 points. Not offered during 2023-2024 academic year.

Prerequisites: *PSYC W1001* or *PSYC W1010*, or the equivalent, plus the instructor's permission.

What does it mean to have a sense of self? Is it uniquely human? Taking a cognitive perspective, we will discuss these questions as well as self-reflective and self-monitoring abilities, brain structures relevant to self-processing, and disorders of self. We will also consider the self from evolutionary, developmental, neuroscience, and psychopathological perspectives.

#### PSYC UN3445 THE BRAIN AND MEMORY. 4.00 points.

Prerequisites: (PSYC UN1010) or

Prerequisites: (PSYC UN1010) or Equivalent introductory course in neuroscience or cognitive psychology and the instructors permission This seminar will give a comprehensive overview of episodic memory research: what neuroimaging studies, patient studies, and animal models have taught us about how the brain creates, stores, and retrieves memories

### PSYC UN3450 Evolution of Intelligence, Animal Communication, # Language. 3.00 points.

Prerequisites: *PSYC W1001* or *PSYC W1010*, and the instructor's permission.

Prerequisites: PSYC UN1001, and the instructors permission. A systematic review of the evolution language covering the theory of evolution, conditioning theory, animal communication, ape language experiments, infant cognition, preverbal antecedents of language and contemporary theories of language

#### Fall 2025: PSYC UN3450

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 3450	001/10392	T 2:10pm - 4:00pm 405 Schermerhorn Hall	Herbert Terrace	3.00	0/15

#### PSYC UN3481 CRITICAL PERIODS IN BRAIN. 4.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: (PSYC UN1010 or

The majority of our mental capacities—ranging from basic sensory functions to more advanced social, emotional and cognitive capabilities—take many years to develop and are highly influenced by environmental signals encountered during particular developmental 'critical periods'. In this seminar we will explore examples of these periods across diverse brain systems and behaviors, ranging from vision and audition to social, emotional and cognitive development, by considering each example in the context of human brain function and behavior as well as at the level of more detailed neurobiological mechanisms underlying these changes elucidated by studies using non-human animal systems.

#### PSYC UN3496 NEUROSCIENCE AND SOCIETY. 3.00 points.

Prerequisites: Science of Psychology (PSYC 1001) or Mind, Brain, # Behavior (PSYC 1010), or equivalent introductory psychology course. Students who have not taken one of these courses may also be admitted with instructor permission. This course investigates the ways in which research in human neuroscience both reflects and informs societal issues. Topics include how neuroscience research is interpreted and applied in areas such as healthcare, education, law, consumer behavior, and public policy

#### PSYC UN3615 Children at Risk (Lecture). 4 points.

Prerequisites: *PSYC W1010, PSYC W2280, PSYC W2620,* or *PSYC W2680,* and the instructor's permission.

Considers contemporary risk factors in children's lives. The immediate and enduring biological and behavioral impact of risk factors.

#### PSYC UN3620 SEM-DEVELOPMNTL PSYCHOPATHOLGY. 4.00 points.

Prerequisites: at least two of the following courses: (UN1001, UN1010, UN2280, UN2620, UN2680, UN3280) and the instructor's permission. Developmental psychopathology posits that it is development itself that has gone awry when there is psychopathology. As such, it seeks to understand the early and multiple factors contributing to psychopathology emerging in childhood and later in life. We will use several models (e.g. ones dominated by biological, genetic, and psychological foci) to understand the roots of mental illness

 Spring 2025: PSYC UN3620
 Times/Location
 Instructor
 Points
 Enrollment

 Number
 Number
 T 10:10am - 12:00pm
 Hannah Hoch
 4.00
 15/15

#### PSYC UN3621 Creativity and the Good Life. 4 points.

Prerequisites: PSYC UN1001 or

Is it possible to make sense of something as elusive as creativity? Yes, it is. This seminar will review the latest science of creativity, and how creativity is relevant to everyday life, society, and the good life. A wide variety of perspectives within the field will be highlighted, including different theories of the creative process and ways of assessing creativity.

#### PSYC UN3623 TOPICS IN CLINICAL PSYCHOLOGY. 4.00 points.

Prerequisites: (PSYC UN1001)

Prerequisites: (PSYC UN1001) Instructor permission required. A seminar for advanced undergraduate students exploring different areas of clinical psychology. This course will provide you with a broad overview of the endeavors of clinical psychology, as well as discussion of its current social context, goals, and limitations

#### Spring 2025: PSYC UN3623

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 3623	001/11843	Th 10:10am - 12:00pm 200b Schermerhorn Hall	Usha Barahmand	4.00	13/15
PSYC 3623	002/11844	W 12:10pm - 2:00pm 200b Schermerhorn Hall	Irit Felsen	4.00	13/15
Fall 2025: PSY	C UN3623				
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 3623	001/11143	M 10:10am - 12:00pm Room TBA	Hannah Hoch	4.00	0/15
PSYC 3623	002/11138	W 12:10pm - 2:00pm 200b Schermerhorn Hall	Irit Felsen	4.00	0/15

### PSYC UN3624 Adolescent Mental Health: Causes, Correlates, Consequences. 4.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: PSYC UN1001 and

Prerequisites: PSYC UN1001 and Prior coursework in Abnormal Psychology and Research Methods strongly preferred. Adolescence is a peak period for the onset of mental disorders and suicidal behaviors. The seminar is designed to enhance understanding of topics including, prevalence, etiology, risk factors, mechanisms, prevention and treatment approaches, and ethical considerations related to clinical research

#### PSYC UN3625 CLINICAL NEUROPSYCHOLOGY. 3.00 points.

Prerequisites: an introductory course in neuroscience, like *PSYC W1010* or *PSYC W2450*, and the instructor's permission.

Prerequisites: an introductory course in neuroscience, like PSYC UN1010 or PSYC UN2450, and the instructor's permission. Analysis of the assessment of physical and psychiatric diseases impacting the central nervous system, with emphasis on the relationship between neuropathology and cognitive and behavioral deficits

#### Spring 2025: PSYC UN3625

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 3625	001/11845	T 4:10pm - 6:00pm	E'mett	3.00	14/18
		200b Schermerhorn Hall	McCaskill		

#### PSYC UN3661 Happiness Studies Seminar. 3 points.

The aim of the course is to introduce students to the field of happiness studies. Drawing on research from the field of psychology, systems thinking, psychology, neuroscience, and other disciplines, the course explores key components of personal, interpersonal, and societal happiness.

### PSYC UN3680 SOCIAL COGNITIVE NEUROSCIENCE. 3.00 points. Not offered during 2023-2024 academic year.

Prerequisites: at least two of the following courses: *PSYC W1001, PSYC W1010, PSYC W2630, PSYC W3410, PSYC W3480, PSYC W3485*; and the instructor's permission.

Social cognitive neuroscience seeks to integrate the theories and methods of its parent disciplines, social psychology and cognitive neuroscience. As such, it seeks to explain social and emotional behavior at three levels of analysis: The social level, which includes descriptions of experience, behavior, and context; the cognitive level, which specifies information processing (i.e. psychological) mechanisms; and the neural level, which specifies neural systems that instantiate these processes. The course begins with foundational concepts (multilevel analyses of behavior, converging evidence, the evolution of the human brain), which students use to analyze findings in number of core content domains (including emotional appraisal, emotion regulation, person perception, social affiliation and rejection, individual differences). Prerequisites: Course equivalents of at least two of the following courses (W1001, W1010, W2630, W3410, W3480, W3485) and/or the instructor's permission

#### PSYC UN3690 The Self in Social Context (Seminar). 4 points.

Prerequisites: *PSYC W1001* or *W1010*, or the equivalent, and the instructor's permission.

This course centers on understanding the self embedded in the social context. We will integrate knowledge from various areas of psychology (developmental, cognitive, social cognition) with a main focus in social psychology. This course will provide the opportunity to gain an understanding of research in the following areas: the development of self in a social context, the relationship between the self and the broader socio-cultural context, the impact of self-involvement on social/cognitive processes, and contemporary research on individual differences.

### PSYC UN3691 Interpersonal Cognition Seminar: Close Relationships, Identity, and Memory. 4 points.

Prerequisites: PSYC UN2630 or PSYC UN2640

What makes people 'click'? How does interpersonal closeness develop? How do close relationships influence our thought processes, behaviors, and identities? How do our conversations with relationship partners change our memories of events and our perceptions of reality? And finally, what are the implicit and explicit cognitive mechanisms underlying these processes?

The primary objective of this course will be to provide you with the relevant literature, theoretical background, methodological proficiency, and critical thinking and communication skills to articulate your own answers to these questions, and to propose future studies in the field.

#### PSYC UN3910 HONORS SEMINAR. 1.00 point.

Prerequisites: open to students in the honors program only. Discussion of a variety of topics in psychology, with particular emphasis on recent developments and methodological problems. Students propose and discuss special research topics

#### PSYC UN3920 HONORS RESEARCH. 1.00-4.00 points.

May be repeated for additional credit.

Prerequisites: open to students in the honors program only.

Prerequisites: open to students in the honors program only. Except by special permission of the director of undergraduate studies, no more than 4 points of individual research may be taken in any one term.

This includes both PSYC UN3950 and PSYC UN3920. No more than 12 points of PSYC UN3920 may be applied toward the honors program in psychology. Special research topics arranged with the instructors of the department leading toward a senior honors paper

#### PSYC UN3950 SUPERVISED INDIVIDUAL RESEARCH. 0.00-4.00 points.

1-4 points. May be repeated for credit. Prerequisites: the instructors permission. Except by special permission of the director of undergraduate studies, no more than 4 points of individual research may be taken in any one term. This includes both PSYC UN3950 and PSYC UN3920. No more than 8 points of PSYC UN3950 may be applied toward the psychology major, and no more than 4 points toward the concentration. Readings, special laboratory projects, reports, and special seminars on contemporary issues in psychological research and theory

Spring 2025: I	PSYC UN3950		_		-
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 3950	001/11886		Dima Amso	0.00-4.00	1/5
PSYC 3950	002/11887		Christopher Baldassano	0.00-4.00	3/5
PSYC 3950	003/11888		Niall Bolger	0.00-4.00	2/5
PSYC 3950	004/11889		Lila Davachi	0.00-4.00	0/5
PSYC 3950	005/11890		Geraldine Downey	0.00-4.00	2/5
PSYC 3950	006/11894		Katherine Fox- Glassman	0.00-4.00	1/5
PSYC 3950	007/11896		Jon Freeman	0.00-4.00	0/5
PSYC 3950	008/11897		Carl Hart	0.00-4.00	2/5
PSYC 3950	009/11898		Tory Higgins	0.00-4.00	0/5
PSYC 3950	010/11899		Sheena Iyengar	0.00-4.00	0/5
PSYC 3950	011/11900		Nikolaus Kriegeskorte	0.00-4.00	0/5
PSYC 3950	012/11901		Patricia Lindemann	0.00-4.00	2/5
PSYC 3950	013/11902		Bianca Marlin	0.00-4.00	0/5
PSYC 3950	014/11905		Janet Metcalfe	0.00-4.00	0/5
PSYC 3950	015/11907		Meghan Meyer	0.00-4.00	1/5
PSYC 3950	016/11909		Michael Morris	0.00-4.00	0/5
PSYC 3950	017/11911		Kevin Ochsner	0.00-4.00	0/5
PSYC 3950	018/11914		Valerie Purdie- Greenaway	0.00-4.00	1/5
PSYC 3950	019/11916		Daphna Shohamy	0.00-4.00	0/5
PSYC 3950	020/11917		Rae Silver	0.00-4.00	0/5
PSYC 3950	021/11920		Larisa Solomon	0.00-4.00	2/5
PSYC 3950	022/11921		Alfredo Spagna	0.00-4.00	5/5
PSYC 3950	023/11925		Yaakov Stern	0.00-4.00	0/5
PSYC 3950	024/11926		Herbert Terrace	0.00-4.00	0/5
PSYC 3950	025/11929		Nim Tottenham	0.00-4.00	2/5
PSYC 3950	026/11931		Sarah Woolley	0.00-4.00	0/5
PSYC 3950	027/11932			0.00-4.00	2/5
PSYC 3950	028/11934		John Thorp	0.00-4.00	0/5
PSYC 3950	029/11936		Nora Isacoff	0.00-4.00	1/5
Fall 2025: PS	YC UN3950				
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 3950	001/11144		Dima Amso	0.00-4.00	0/5
PSYC 3950	002/11145		Christopher Baldassano	0.00-4.00	0/5
PSYC 3950	003/11146		Niall Bolger	0.00-4.00	0/5
PSYC 3950	004/11149			0.00-4.00	0/5
PSYC 3950	005/11150		Lila Davachi	0.00-4.00	0/5
PSYC 3950	006/11151		Sarah DeMoya	0.00-4.00	0/5
PSYC 3950	007/11152		Geraldine Downey	0.00-4.00	0/5
PSYC 3950	008/11153		Katherine Fox- Glassman	0.00-4.00	0/5
PSYC 3950	009/11157		Jon Freeman	0.00-4.00	0/5
PSYC 3950	010/11164		Carl Hart	0.00-4.00	0/5
PSYC 3950	011/11165		Tory Higgins	0.00-4.00	0/5
PSYC 3950	012/11168		Nora Isacoff	0.00-4.00	0/5
D0V0 2050	010/11100		Observe	0.00.4.00	0.45

#### PSYC GU4202 Theories of Change in Human Development. 4.00 points.

What are the agents of developmental change in human childhood? How has the scientific community graduated from nature versus nurture, to nature and nurture? This course offers students an in-depth analysis of the fundamental theories in the study of cognitive and social development

#### Spring 2025: PSYC GU4202

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4202	001/11848	W 10:10am - 12:00pm 405 Schermerhorn Hall	Dima Amso	4.00	15/15
Fall 2025: PSY	C GU4202				
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4202	001/10348	W 10:10am - 12:00pm 405 Schermerhorn Hall	Dima Amso	4.00	0/15

#### PSYC GU4222 The Cognitive Neuroscience of Aging (Seminar). 4 points.

Prerequisites: courses in introductory psychology and cognitive psychology; and the instructor's permission.

Comprehensive overview of various conceptual and methodologic approaches to studying the cognitive neuroscience of aging. The course will emphasize the importance of combining information from cognitive experimental designs, epidemiologic studies, neuroimaging, and clinical neuropsychological approaches to understand individual differences in both healthy and pathological aging.

#### PSYC GU4223 MEMORY # EXEC FUNCT:LIFESPAN. 4.00 points.

Prerequisites: the instructor's permission, plus *PSYC W1001* or *PSYC W1010*, or the equivalent. Optimal preparation will include some background in experimental design and statistics.

Prerequisites: the instructors permission, plus PSYC UN1001 or PSYC UN1010, or the equivalent. Optimal preparation will include some background in experimental design and statistics. Memory and executive processing are critical cognitive functions required for successfully navigating everyday life. In lifespan studies, both exhibit relatively long developmental trajectories followed by stasis and then relative decline in old age. Yet, neither memory nor executive function is a unitary construct. Rather, each is comprised of separable components that may show different developmental trajectories and declines or maintenance at older ages. Moreover, memory is malleable and is a reconstruction of past experience, not an exact reproduction. We will discuss a range of topics related to the development, maintenance and potential decline in memory and executive function from infancy through old age

#### PSYC GU4224 Consciousness and Cognitive Science. 4.00 points.

Our human experience is rich: the thrill of falling in love, the spark of a new idea, the zing of table salt, the sharpness of pain. For thousands of years, philosophers, artists, and religious scholars have tried to explain our subjective experience. More recently, neuroscientists and artificial intelligence experts have contributed to this discussion, weighing in on whether we are "more than meat" (as Descartes famously put it), and whether computers can ever be sentient. In this class, we will begin with the big questions and an interdisciplinary overview of consciousness, then delve into psychology's role. Using literature from perception, memory, emotion, metacognition, attention, and symbolic development, among other areas of psychology, we will see what empirical evidence can tell us about who we are, what we are able to know, and why we even have an experience of the world at all

#### Spring 2025: PSYC GU4224

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4224	001/11865	T 12:10pm - 2:00pm	Nora Isacoff	4.00	15/15

#### PSYC GU4225 CONSCIOUSNESS # ATTENTION. 4.00 points.

Prerequisites: the instructor's permission; some basic knowledge of cognitive science and neuroanatomy is desirable, but not necessary. Modern theories attempt to characterize the human mind in terms of information processing. But machines that process information do not seem to feel anything; a computer may for instance receive inputs from a video camera, yet it would be hard to imagine that it sees or experiences the vividness of colors like we do. Nobody has yet provided a convincing theory as to how to explain the subjective nature of our mental lives in objective physical terms. This is called the problem of consciousness, and is generally considered to be one of the last unsolved puzzles in science. Philosophers even debate whether there could be a solution to this problem at all. Students in this course may be recruited for participation in a voluntary research study. Students who choose not to participate in the study will complete the same course requirements as those who do, and an individual's choice will not affect their grade or status as a student in the course

#### PSYC GU4229 ATTENTION AND PERCEPTION. 4.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: (PSYC UN1010) or

Prerequisites: (PSYC UN1010) or Equivalent introductory course in neuroscience or cognitive psychology This seminar aims to provide an in-depth overview of neuroscientific knowledge regarding two critical cognitive functions: attention and perception. For each topic, results from behavioral studies are combined with those from recent neurocognitive approaches – primarily neuropsychological and functional brain imaging studies – that reveal the underlying neural networks and brain mechanisms

#### PSYC GU4232 Production and Perception of Language. 4 points.

Prerequisites: two courses in Psychology and the instructor's permission. Topics include phonetic expression, motoric and perceptual organization, speech codes and memory codes, spoken word recognition, phrase formation, and the effects of context in perception and production.

### PSYC G4230 Sensation and Perception (Seminar). 3 points. Not offered during 2023-2024 academic year.

Prerequisites: the instructor's permission; some background in perception is required.

Topics on the perception of space. Discussions, reviews, and recent literature.

#### PSYC GU4235 SPECIAL TOPICS IN VISION. 3.00 points.

This course will be offered in Fall 2016. May be repeated for additional credit.

Prerequisites: the instructor's permission. Please contact Prof. Graham by e-mail (nvg1@columbia.edu) if you are interested in this course. Prerequisites: the instructors permission. Please contact Prof. Graham by e-mail (nvg1@columbia.edu) if you are interested in this course

#### PSYC GU4236 Machine Intelligence. 4.00 points.

CC/GS: Partial Fulfillment of Science Requirement

This course will survey historical and modern developments in machine intelligence from fields such as psychology, neuroscience, and computer science, and from intellectual movements such as cybernetics, artificial intelligence, neural networks, connectionism, machine learning, and deep learning. The emphasis is on the conceptual understanding of topics. The course does not include, nor require background in, computer programming and statistics. A crucial aspect of the seminar is for students to become informed consumers of applications of artificial intelligence

#### PSYC GU4239 COG NEURO NARRATIVE FILM. 3.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: (PSYC UN1010 or

Prerequisites: (PSYC UN1010 or Equivalent introductory course in neuroscience or cognitive psychology This seminar will provide a broad survey of how narrative stories, films, and performances have been used as tools to study cognition in psychology and neuroscience
Fall 2025: PSYC GU4239

Course	Section/Call	Times/Location	Instructor	Points	Enrollment
Number	Number				
PSVC 4239	001/10354	T 10:10am - 12:00nm	Christopher	3.00	0/15

#### PSYC GU4242 Evolution of Language (seminar). 3.00 points.

Prerequisites: PSYC UN1001 or

This seminar will consider the evolution of language at the levels of the word and grammar, in each instance, phylogenetically and ontogenetically. Since humans are the only species that use language, attention will be paid to how language differs from animal communication.

#### PSYC GU4244 LANGUAGE AND MIND. 4.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: PSYC UN1001 and

Prerequisites: PSYC UN1001 and Preferably, an additional course in psychology, focusing on cognition, development, or research methods. Instructor permission required. This seminar explores the relationship between language and thought by investigating how language is mentally represented and processed; how various aspects of language interact with each other; and how language interacts with other aspects of cognition including perception, concepts, world knowledge, and memory. Students will examine how empirical data at the linguistic, psychological, and neuroscientific levels can bear on some of the biggest questions in the philosophy of mind and language and in psychology

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4244	001/10365	W 2:10pm - 4:00pm Room TBA	Nora Isacoff	4.00	0/15

### PSYC GU4250 Evolution of Intelligence, Cognition, and Language (Seminar). 3 points.

Prerequisites: *PSYC W1001* or *PSYC W1010* or the equivalent, based on instructor assessment, plus one of the instructors' permission. How did language evolve and why are human beings the only species to use language? How did the evolution of social intelligence, in particular, cooperation, set the stage for the origin of language and consciousness? We will explore how psychologists, philosophers, neuroscientists, anthropologists, biologists and computational scientists, among others, have collaborated during recent years to produce important insights in the evolution of intelligence, consciousness and language.

#### PSYC GU4265 AUDITORY PERCEPTION. 3.00 points.

Prerequisites: PSYC UN1010

Prerequisites: PSYC UN1010 PSYC UN1010 or equivalent; background in statistics/research methods recommended How does the human brain make sense of the acoustic world? What aspects of auditory perception do humans share with other animals? How does the brain perform the computations necessary for skills such as soundlocalization? How do we focus our auditory attention on one voice in a crowd? What acoustic cues are important for speech perception? How is music perceived? These are the types of questions we will address by studyingthe basics of auditory perception from textbook readings and reviews, and reading classic and current literatureto understand scientific progress in the field today

# Spring 2025: PSYC GU4265 Times/Location Instructor Points Enrollment Number Number Th 4:10pm - 6:00pm Sarah Woolley 3.00 13/15 PSYC 4265 001/11871 Th 4:10pm - 6:00pm Sarah Woolley 3.00 13/15

#### PSYC GU4270 COGNITIVE PROCESSES. 3.00 points.

Prerequisites: For undergraduates: one course in cognitive psychology or cognitive neuroscience, or the equivalent, and the instructors permission. Metacognition and control processes in human cognition. Basic issues include the cognitive mechanisms that enable people to monitor what they know and predict what they will know, the errors and biases involved in self-monitoring, and the implications of metacognitive ability for peoples self-determined learning, behavior, and their understanding of self

00									
Spring 2025: PSYC GU4270									
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment				
PSYC 4270	001/13508	T 12:10pm - 2:00pm 405 Schermerhorn Hall	Janet Metcalfe	3.00	9/15				

#### PSYC GU4280 CORE KNOWLEDGE. 4.00 points.

Prerequisites: For undergraduates: courses in introductory psychology, cognitive or developmental psychology, and the instructor's permission. Prerequisites: For undergraduates: courses in introductory psychology, cognitive or developmental psychology, and the instructors permission. Core Knowledge explores the origins and development of knowledge in infants and children, with an additional emphasis on evolutionary cognition. In this course, we will examine evidence from cognitive psychology, developmental psychology, comparative psychology, neuroscience, and linguistics to look at the childs conception of objects, number, space, language, agency, morality and the social world. We will look at which aspects of knowledge are uniquely human, which are shared with other animals, and how this knowledge changes as children develop

Spring 2025: PSYC GU4280								
Course	Section/Call	Times/Location	Instructor	Points	Enrollment			
Number	Number							
PSYC 4280	001/11872	W 2:10pm - 4:00pm 302 Fayerweather	Koleen McCrink	4.00	14/15			

#### PSYC GU4281 The Psychology of Curiosity. 4.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: PSYC UN1001 or

Prerequisites: PSYC UN1001 or equivalent introductory psychology course What is curiosity and how do we study it? How does curiosity facilitate learning? This course will explore the various conceptual and methodological approaches to studying curiosity and curiosity-driven learning, including animal and human studies of brain and behavior

Spring 2025: PSYC GU4281

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment						
PSYC 4281	001/13509	W 2:10pm - 4:00pm 405 Schermerhorn Hall	Janet Metcalfe	4.00	14/15						
Fall 2025: PSY	Fall 2025: PSYC GU4281										
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment						
PSYC 4281	001/11141	T 12:10pm - 2:00pm 405 Schermerhorn Hall	Janet Metcalfe	4.00	0/15						

#### PSYC GU4282 The Neurobiology and Psychology of Play. 4 points.

CC/GS: Partial Fulfillment of Science Requirement

Play is a highly rewarding activity that is considered critical to cognitive, social, and emotional development. How do we define play and how do we study it? How does play help humans and other animals learn about their world and prepare them for adulthood? This course will examine the latest developments in the field of play from various methodological approaches to understand the relationship between play, learning, and normative development.

#### PSYC GU4287 DECISION ARCHITECTURE. 4.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: (PSYC UN2235) or

Prerequisites: (PSYC UN2235) or an equivalent course on judgment and decision making ,AND the instructors permission This course reviews current research in the domain of decision architecture: the application of research in cognitive and social psychology to real-world situations with the aim of influencing behavior. This seminar will discuss recent and classic studies, both of decision theory and of applied decision research, to explore the effectiveness—as well as the limitations—of a selection of these behavioral "nudges."

### PSYC GU4289 THE GAMES PEOPLE PLAY:PSYCH OF STRAT DEC. 3.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: (PSYC UN2235) or

Prerequisites: (PSYC UN2235) or equivalent course on judgment and decision-making A seminar course exploring strategic decision making (also known as behavioral game theory). This course examines the psychology underlying situations in which outcomes are determined by choices made by multiple decision makers. The prime objective will be to examine the use of experimental games to test psychological theories

#### PSYC GU4420 Animal Cognition (Seminar). 3 points.

Prerequisites: For undergraduates: the instructor's permission. Seminar concerning a nonverbal animal's use of internal representations of past experience as a basis for action. Topics include how representations are formed, what aspects of experience are encoded, how information is stored, and how it is used later to guide behavior.

#### PSYC GU4430 Learning and the Brain (Seminar). 4 points.

Prerequisites: courses in introductory psychology and/or neuroscience, and the instructor's permission.

What are the neural mechanisms that support learning, memory, and choices? We will review current theories in the cognitive neuroscience of human learning, discuss how learning and decision making interact, and consider the strengths and weaknesses of two influential methods in the study of human brain and behavior—functional imaging and patient studies.

### PSYC GU4435 NON-MNEMONIC FUNC OF MEMORY SYSTEMS. 4.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: (PSYC UN1010) or

Prerequisites: (PSYC UN1010) or equivalent introductory course in neuroscience or cognitive psychology The past decade has produced an extraordinary amount of evidence that challenges the classic view of a "medial temporal lobe memory system", namely, the idea that the medial temporal lobe plays a necessary role in long-term memory but not other cognitive functions. This course will introduce these challenges to the traditional perspective by exploring functions of the so-called memory system in domains outside of long-term memory

#### PSYC GU4440 TOPICS-NEUROBIOLOGY # BEHAVIOR. 3.00 points.

Prerequisites: the instructors permission. Examines current topics in neurobiology and behavior

Spring 2025: PSYC GU4440

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4440	001/11873	M 6:10pm - 8:00pm 405 Schermerhorn Hall	Carl Hart	3.00	10/15

#### PSYC GU4470 PSYCH # NEUROPSYCH OF LANGUAGE. 4.00 points.

Prerequisites: the instructor's permission. A course in the psychology of language or linguistics is highly recommended.

This seminar surveys current theories of language production. We will examine psycholinguitsic and neuroimaging studies of word and sentence production conducted with monolingual and bilingual speakers, and individuals with acquired language impairments.

#### PSYC GU4480 PSYCHOBIOLOGY OF INFANT DEVPT. 4.00 points.

Prerequisites: (PSYC UN1001 or PSYC UN1010) and *PSYC W1001* or *W1010*, a course in developmental psychology, and the instructor's permission.

Prerequisites: (PSYC UN1001 or PSYC UN1010) and a course in developmental psychology, and the instructors permission. The focus of the seminar is on human development during the fetal period and early infancy. We will examine the effects of environmental factors on perinatal perceptual, cognitive, sensory-motor, and neurobehavioral capacities, with emphasis on critical conditions involved in both normal and abnormal brain development. Other topics include acute and long term effects of toxic exposures (stress, smoking, and alcohol) during pregnancy, and interaction of genes and the environment in shaping the developing brain of high-risk infants, including premature infants and those at risk for neurodevelopmental disorders such as Sudden Infant Death Syndrome

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Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment				
PSYC 4480	001/12982	T 4:10pm - 6:00pm 200c Schermerhorn Hall	William Fifer, Morgan Firestein	4.00	15/15				

#### PSYC GU4482 Neural Plasticity. 4.00 points.

This seminar provides an overview of the mechanisms and behaviors associated with neural plasticity. Students will obtain a basic working knowledge of the different types of neural plasticity, and how these affect cognition and behaviors

#### Spring 2025: PSYC GU4482

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment				
PSYC 4482	001/11875	T 10:10am - 12:00pm 200c Schermerhorn Hall	Tina Kao	4.00	15/15				
Fall 2025: PSYC GU4482									
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment				
PSYC 4482	001/10366	W 4:10pm - 6:00pm	Tina Kao	4.00	0/15				

#### PSYC GU4486 Emotional Brain Development. 4.00 points.

Prerequisites: courses in developmental psychology, and either research methods or affective neuroscience, and the instructor's permission. There is nothing more important to us than the feelings that we have. But where do our emotions come from and why do we sometimes feel differently from our peers? The reason usually involves an understanding of one's developmental history. This course uses a developmental approach to address emotional brain-behavior relationships. We will discuss theoretical papers and empirical work that covers typical and atypical behavior and the neurobiology that supports behavioral change across age. A translational approach is taken that uses animal models and human examples to illustrate these developmental trajectories. We will cover experimental approaches during discussion of each topic

#### Spring 2025: PSYC GU4486

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4486	001/17232	T 2:10pm - 4:00pm 507 Hamilton Hall	Nim Tottenham	4.00	15/20

#### PSYC GU4490 Inheritance (Seminar). 4 points.

Prerequisites: basic knowledge of biology and neuroscience recommended; the instructor's permission required.

Explores the concept of inheritance and the mechanisms through which inheritance is mediated. Will focus on the generational transmission of physiology and behavior, but will also consider the inheritance of culture and language.

#### PSYC GU4491 The Parental Brain. 4.00 points.

This course will provide an overview of the field of parental and social biology, with an emphasis on changes in the adult rodent brain surrounding childbirth and caretaking behavior. We will explore how the experience of parenthood prepares the brain for survival of offspring. We will also discuss the dynamic between caregivers and parents in order to provide the structure necessary to rear young. This course will illustrate the fortitude of molecular, behavioral and circuit level investigations in concert to unveil mechanisms of social learning

#### Fall 2025: PSYC GU4491

Course	Section/Call	Times/Location	Instructor	Points	Enrollment
Number	Number				
PSYC 4491	001/10367	T 12:10pm - 2:00pm	Bianca Marlin	4.00	0/15
		200c Schermerhorn Hall			

#### PSYC GU4493 Stress and the Brain. 4.00 points.

This course will use clinical studies and experimental research on animals to understand the impact of stress during various periods of development on brain function and behavior. We will address the long-and short-term consequences of stress on cognition, emotion, and ultimately psychopathology through investigating how various stressors can induce neurobiological and behavioral outcomes through genetic, epigenetic, and molecular mechanisms in the brain

#### Spring 2025: PSYC GU4493

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4493	001/11876	F 2:10pm - 4:00pm	Jennifer Blaze	4.00	11/15

#### PSYC GU4498 BEHAVIORAL EPIGENETICS. 4.00 points.

Prerequisites: basic background in neurobiology (for instance *PSYC W1010, W2450, W2460, W2480,* and *G4499*) and the instructor's permission.

Prerequisites: basic background in neurobiology (for instance PSYC UN1010, UN2450, UN2460, UN2480, and GU4499) and the instructors permission. This course will provide an overview of the field of epigenetics, with an emphasis on epigenetic phenomena related to neurodevelopment, behavior and mental disorders. We will explore how epigenetic mechanisms can be mediators of environmental exposures and, as such, contribute to psychopathology throughout the life course. We will also discuss the implications of behavioral epigenetic research for the development of substantially novel pharmacotherapeutic approaches and preventive measures in psychiatry

#### Fall 2025: PSYC GU4498

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4498	001/10368	F 2:10pm - 4:00pm 200c Schermerhorn Hall	Jennifer Blaze	4.00	0/15

#### PSYC GU4612 Frontiers of Justice. 4.00 points.

Frontiers of Justice is designed to encourage students and equip them with the skills to become active and effective "Change Agents" within their academic institutions and larger communities.. Oriented by the question, What does justice look like?, this course aims to raise political and social awareness and engagement with the challenges facing New York City and strengthen ties between Columbia University, disadvantaged communities, and city government agencies and community organizations. Through sharing ideas about how to make structural and systemic change in ways that integrate science, law, politics, history, narrative and community engagement, the course is intended to support students in working to break down racial and ethnic barriers and toward a more fair and just society

#### Spring 2025: PSYC GU4612

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4612	001/13351	T 6:10pm - 8:00pm 200b Schermerhorn Hall	Peter Dixon	4.00	18/20

#### PSYC GU4615 PSYCH OF CULTURE & DIVERS. 4 points.

Sprina	2025:	<b>PSYC</b>	<b>GU461</b>	5

Spring 2025: PSYC G04615					
Course	Section/Call	Times/Location	Instructor	Points	Enrollment
Number	Number				
PSYC 4615	001/15713	Th 10:10am - 12:00pm 405 Schermerhorn Hall	Valerie Purdie- Greenaway	4	15/21

### PSYC GU4627 Seminar in Anxiety, Obsessive-Compulsive, and Related Disorders. 4.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Prerequisites: PSYC UN1001 or

This seminar course will focus on the etiology and phenomenology of anxiety disorders, obsessive-compulsive disorder (OCD), and OCD-related disorders, as well as their evidence-based treatments

#### PSYC GU4630 ADV SEM CURRENT PERS THRY. 3.00 points.

Open to psychology graduate students and advanced undergraduate psychology majors.

Prerequisites: the instructor's permission.

Critical review and analysis of basic and enduring issues in personality theory, assessment, and research.

Spring 2025: PSYC GU4630						
Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment	
PSYC 4630	001/11878	M 10:10am - 12:00pm 405 Schermerhorn Hall	Svetlana Komissarouk	3.00	0/15	

#### PSYC GU4635 The Unconscious Mind (Seminar). 4 points.

Prerequisites: the instructor's permission; some basic knowledge of social psychology is desirable.

Discussion of the unconscious mind from the perspective of social cognition, with an emphasis on both theoretical and empirical background, as well as current issues in measuring automatic processing. Topics include: implicit memory systems; unconscious attitudes, goals and behavior, emotions, and decision making; the activation and deactivation of knowledge systems; and priming.

#### PSYC GU4645 CULTR, MOTIVATN, PROSOCIAL BEHAV. 4.00 points.

Prerequisites: Some knowledge of Research Methods, Statistics, and Social Psychology, plus Instructors Permission. Reviews and integrates current research on three important topics of social psychology: culture, motivation, and prosocial behavior. Discussions and readings will cover theoretical principles, methodological approaches, and the intersection of these three topics. Students will write a personal research proposal based on the theories presented during the seminar

#### PSYC GU4670 THRY-SOCIAL/PERSONALITY PSYCH. 3.00 points.

Prerequisites: the instructor's permission.

Prerequisites: the instructors permission. Comparison of major theoretical perspectives on social behavior. The nature of theory construction and theory testing in psychology generally. Exercises comparing the predictions of different theories for the same study are designed to acquire an appreciation of how to operationalize theories and an understanding of the various features of a good theory

#### PSYC GU4672 MORAL PSYCHOLOGY. 4.00 points.

Prerequisites: Two courses in psychology, including at least one course with a focus on social and/or developmental psychology, and permission of the instructor.

Prerequisites: Two courses in psychology, including at least one course with a focus on social and/or developmental psychology, and permission of the instructor. Review of theories and current research on moral cognition and behavior. Topics include definitions of morality, the development of moral cognition, the role that other aspects of human experience (e.g. emotion, intentions) play in moral judgments, and the relationship between moral psychology and other areas of study (e.g. religious cognition, prejudice and stereotyping, the criminal justice system)

#### PSYC GU4673 Political Psychology. 4 points.

This seminar will explore what psychology (mostly social and cognitive) can tell us about politics. The class aims to provide a broad introduction to ideas and methods in the field of political psychology, as well as a deep understanding of a few specific topics.

### PSYC GU4682 FAQS ABOUT LIFE:APPL OF PSYC RSCH TO EVE. 4.00 points.

Prerequisites: Two courses in psychology, with at least one focusing on statistics and/or research methods in psychology, and permission of the instructor. Review of basic psychological research that is relevant to questions people frequently encounter during the course of everyday life. Potential topics for this seminar include research on decision-making, emotion, and/or interpersonal relationships

#### Fall 2025: PSYC GU4682

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4682	001/10369	W 2:10pm - 4:00pm	Larisa	4.00	0/15
		405 Schermerhorn Hall	Solomon		

### PSYC GU4685 The science of me, you and us: understanding emotion, the self and social connections. 3.00 points.

Prerequisite: Course equivalents of at least two of the following courses: UN1001, UN2430, UN2630, UN3410, UN3480, UN3485; and/ or instructor's permission. Why do we feel the way we do, how do we understand ourselves and others, and how does this relate to our social relationships? In this course, we tackle questions like these using an integrative approach that blends social psychology, affective science and neuroscience to uncover how our emotions and social interactions work. To do this, we will draw on multiple types of data to examine human behavior at multiple levels, connecting our social and emotional lives (what we experience and how we act) to cognitive processes (how our minds process information) and underlying neural mechanisms (what's happening in the brain). Across the semester, the course is split into three parts, each one building on insights from the prior section. Part 1 starts with the premise that emotions are at the root of everything we do, exploring where they come from and how we can understand and manage them. Part 2 turns the focus outwards, examining how we make sense of other people and form connections with them. With these two foundational building blocks in place, Part 3 uses what we have learned to understand what happens when things go awry and we end up with momentary - or long-lasting - bouts of anxiety, depression, or loneliness - and what we can do to overcome them and lead a happy and fulfilling life. The overarching goal is to build a nuanced understanding of how and why we think and feel the way we do - about ourselves, other people and our connections to them - that can inform both scientific and personal explorations of what it means to be human

#### Spring 2025: PSYC GU4685

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
PSYC 4685	001/11880	T 2:10pm - 4:00pm 405 Schermerhorn Hall	Kevin Ochsner	3.00	15/20
PSYC 4685	002/20381		Kevin Ochsner	3.00	7/15

#### PSYC GU4686 Barriers and Levers for Behavior Change. 4 points.

Prerequisites: (PSYC UN1001 or PSYC UN1010) and Seminar course exploring individual, social, and cultural barriers and levers for behavior change, with a focus on social issues, such as motivating pro-environmental action, encouraging positive health behavior change, and promoting charitable giving.

#### PSYC GU4690 SOCIAL FACTORS # PSYCHOPATHLGY. 3.00 points.

Prerequisites: the instructor's permission.

Prerequisites: the instructors permission. Reviews and integrates current research on the role of social factors in psychopathology. The immediate and long-term effects of chronic and traumatic stressors originating outside the family (e.g. natural disasters, chronic poverty) and inside the family (e.g. family violence, divorce, parental psychopathology) on psychopathology

#### PSYC GU4695 Psychology of Close Relationships (Seminar). 3 points.

Prerequisites: Research Methods, statistics, social psychology, and the instructor's permission.

Introduction to leading theoretical perspectives employed by social psychologists in the study of close romantic relationships. Exploration of relationship-relevant constructs (e.g., love, commitment, intimacy, breakups) through the lenses offered by these different theories, and with a critical reading of recent research findings in this field.

### PSYC GU4880 In Service of Equity: Examining Developmental Science through the Lens of Policy. 4.00 points.

Urie Bronfenbrenner (1974) wrote, "We have now come the full circle and returned to our starting point—issues of social policy as points of departure for the identification of significant theoretical and scientific questions concerning the development of the human organism as a function of interaction with its enduring environment-both actual and potential." This course is designed to examine emotional and cognitive development through the lens of existing financial, social, and educational policies. We will examine the influence- on child development - of inequities in education, household socioeconomic status and poverty, neighborhood socioeconomic status and poverty, access to prenatal care, parental incarceration rates, and systemic racism

### PSYC GU4930 Fundamentals of Human Brain Imaging: from theory to practice. 4.00 points.

CC/GS: Partial Fulfillment of Science Requirement

Fundamentals of human brain imaging is a new advanced course open to undergraduates students from the Psychology, Neuroscience, Engineering, and Statistics Departments, that traces the key steps of the recent "neuroimaging revolution", and introduces the various methodologies and associated analytic approaches that are now available in the field of cognitive neuroscience. Specifically, the course develops around three main questions, currently under-represented in our undergraduate curriculum: 1) What is the advantage to study human cognition using correlational methodologies (e.g., EEG, MEG, fMRI)? 2) Which is the particular contribution of each method in the understanding of brain/behavior relationship? 3) Which are the most common ways to approach the analyze the neuroimaging data? By promoting an inclusive environment and implementing active learning strategies, this course stimulates critical thinking and fosters collaboration among students from different departments