

# PSYCHOLOGY (PSYC)

## Faculty

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The science of psychology investigates human and animal behavior, cognition and emotion by analyzing the complex interactions among environmental, social, cultural and biological influences. Students are trained in scientific methods and different theoretical perspectives in a variety of areas of psychology: biopsychology, neuropsychology, sensation and perception, cognition, learning, child and adult development, social psychology, personality, health psychology, abnormal psychology, multicultural psychology, and animal behavior. In short, psychology seeks to explain and understand how and why people and animals think and behave in the ways they do.

Through acquiring a better understanding of behavior, cognition and emotion, and scientific methods of investigation and analysis, psychology majors are well prepared to enter many fields. A major in psychology can lead to graduate study enabling a career in many areas of psychology from experimental research to clinical/counseling work. Psychology majors also pursue further education and careers in law and medicine. Psychology majors who do not pursue graduate study are well prepared for a variety of careers in the corporate and not-for-profit sectors, relying on the skills they have developed in their psychology courses, such as scientific reasoning, writing, data analysis, critical reading, writing and presentation skills.

## Psychology Major

A **major** in psychology consists of 10 course credits: two courses above the 200 level, at least one of which must be taken at Bucknell. At least one of the courses above the 300 level must have been designated as meeting the Culminating Experience requirement (described below).

PSYC 100	Introduction to Psychology	1
PSYC 215 or MATH 216	Psychological Statistics <sup>1</sup> Statistics I	1
PSYC 216	Introduction to Research Methods in Psychology	1
One discipline-specific research lab. <sup>2</sup>		1
Four 200-level content courses. <sup>3</sup>		4
Two seminars above the 200 level. <sup>4</sup>		2
<b>Total Credits</b>		<b>10</b>

<sup>1</sup> Majors should complete PSYC 215 Psychological Statistics and PSYC 216 Introduction to Research Methods in Psychology by the end of the sophomore year.

<sup>2</sup> The discipline-specific research lab course titled "Advanced Methods in \_\_\_\_\_" may be taken only after having completed PSYC 215 Psychological Statistics and PSYC 216 Introduction to Research Methods in Psychology.

<sup>3</sup> The courses in the 200-level clusters are designed to be foundational and, taken together, provide exposure to critical content areas and perspectives in the field. Thus, at least one course must come from each of the *Brain and Behavior*, *Cognition and Learning*, and *Person and the Group* clusters. The fourth course may come from any of these clusters or may come from the *Psychological Breadth* cluster. Ideally, all 200-level requirements should be completed by the end of the junior year. The optimal scheduling of these courses should be determined in consultation with a member of the department, and is especially important for students who enter the major late, hope to study abroad, or have strong preferences among alternative courses.

<sup>4</sup> At least one course must be taken at Bucknell. Majors **may not** use PSYC 329 Undergraduate Research or PSYC 360 Honors Thesis to satisfy this requirement. One of these 300-level seminars may be designated as meeting the Culminating Experience requirement. PSYC 350 Culminating Research Experience+ taken in a student's final three semesters may fulfill one of the 300-level seminar requirements AND the Culminating Experience requirement.

## Brain and Behavior

PSYC 248	Developmental Psychobiology	1
PSYC 250	Biopsychology	1

PSYC 252	Sensation and Perception	1
PSYC/ANBE 266	Animal Behavior	1

### Cognition and Learning

PSYC 203	Learning	1
PSYC 204	Human Cognition	1
PSYC 237	Introduction to Language Development	1

### Person and the Group

PSYC 207	Developmental Psychology	1
PSYC 209	Social Psychology	1
PSYC 210	Psychopathology	1
PSYC 213	Abnormal and Clinical Psychology	1
PSYC 240	Critical Multicultural Psychology	1

### Psychological Breadth

PSYC 211	Health Psychology	1
PSYC/NEUR 217	Psychopharmacology	1
PSYC 228	Personality Psychology	1
PSYC 230	Critical Community Psychology	1
PSYC 232	Psychology of Women	1
PSYC 233	Black Psychology	1
PSYC 234	Introduction to Sport Psychology	1
PSYC 236	Drugs and Behavior	1
PSYC 239	Environmental Psychology	1
PSYC 242	Positive Psychology	1

Or additional psychology courses with departmental approval – often taken abroad.

Psychology majors satisfy the requirements of the College of Arts & Sciences Core Curriculum for writing, information literacy and presentation skills through their discipline-specific advanced methods course. In the context of psychological research, each of these courses provides formal training in writing, library and information research, and presentation skills. Frequent instruction and practice in writing, information search and presentation skills are also provided in a variety of additional courses at all levels of the major. (See Meeting the CASCC requirements for specific information.)

To complete the Culminating Experience requirements of the College of Arts & Sciences Core Curriculum, students select one of their 300-level seminars from a list of those identified by the department as drawing from and integrating an especially broad variety of perspectives and research areas of psychology. Alternatively, students who are academically eligible to participate in the Honors Program in their senior year may undertake an original research project leading to a written honors thesis. Successful completion of an honors thesis requirement defined by the University Honors Council fulfills the Culminating Experience requirement. PSYC 329 Undergraduate Research taken in a student's final three semesters may also count toward the Culminating Experience requirement (see Meeting the CASCC requirements below for specific information).

The department strongly encourages students to engage in independent research, done in close collaboration with a faculty member, either on a volunteer basis or for academic credit. This is excellent preparation for graduate study and an exciting way for students to apply the skills they learn in their coursework by engaging intellectually in the process of discovery in psychology. Seniors, if academically eligible, often conduct senior honors projects and many others conduct independent studies at the 200 level or the 300 level. Students who are engaged in 300-level independent study AND enroll in PSYC 350 Culminating Research Experience+ in their final three semesters may use this experience as one of their 300-level requirements AND a Culminating Experience.

## Meeting the CASCC Requirements

### Writing Within the Major

Psychology majors can satisfy the writing in the major requirement by taking:

Select one of the following:

- |                                                                             |                            |
|-----------------------------------------------------------------------------|----------------------------|
| PSYC 100                                                                    | Introduction to Psychology |
| 200-level psychology courses that are not applied research methods seminars |                            |
| Applied Research Methods Seminars                                           |                            |
| 300-level psychology courses                                                |                            |

### Formal Presentation Experience

Psychology majors can satisfy the formal presentation experience requirement by taking applied research methods seminars, or:

PSYC 305	Neurodevelopmental Disorders	1
PSYC 307	Culture and Child Development	1
PSYC 309	Appetite and Eating Behavior	1
PSYC 311	Advanced Health Psychology	1
PSYC 317	Comparative Animal Cognition	1
PSYC 318	Cognitive Aging	1
PSYC 325	Personality, Psychopaths, and Serial Killers	1
PSYC 339	Psychology of Music	1
PSYC 348	Behavioral Pharmacology	1
PSYC 350	Culminating Research Experience+	1
PSYC 352	Face Perception	1
PSYC 370	Primate Behavior and Ecology	1

Additionally, psychology majors can fulfill this requirement by completing an honors thesis.

### Information Literacy

Psychology majors can fulfill this requirement by taking: an applied research methods seminar, 200-level psychology courses, 300-level psychology courses, or by completing an honors thesis or an independent study.

### Culminating Experience

Select one of the following 300-level psychology seminars to be taken during the final three semesters: <sup>6</sup>

PSYC 303	Critical Psychologies	1
PSYC 305	Neurodevelopmental Disorders	1
PSYC 306	Critical Trauma Psychology	1
PSYC 307	Culture and Child Development	1
PSYC 309	Appetite and Eating Behavior	1
PSYC 312	Biopsychology of Appetite and Obesity	1
PSYC 313	Researching Behavioral Neuroscience	1
PSYC 315	Language Development	1
PSYC 316	Advanced Social Psychology	1
PSYC 320	Children's Studies	1
PSYC/NEUR 321	Neuroethics	1
PSYC 323	Meeting of the Minds: The Intersection of Buddhism and Cognitive Therapy	1
PSYC 325	Personality, Psychopaths, and Serial Killers	1
PSYC 334	Advanced Positive Psychology	1
PSYC 341	Neurophysiology of Wellbeing	1
PSYC 350	Culminating Research Experience+ <sup>7</sup>	1
PSYC 352	Face Perception	1
PSYC 360	Honors Thesis	1
PSYC 368	Social Neuroscience	1
PSYC 369	Psychology of Beauty and Attraction	1
PSYC 370	Primate Behavior and Ecology	1
PSYC 372	Comparative Cognition	1
PSYC 374	Latinx Psychology	1

<sup>6</sup> Each seminar on this list meets one or more of the following requirements: 1) involves an independent and original work of psychological research; 2) includes a service-learning experience; 3) results in the creation and delivery of applications and proposals based on psychological knowledge for the benefit of the community; or 4) culminates in a major paper that synthesizes psychological knowledge. Completing PSYC 329 Undergraduate Research that meets one of the four requirements just listed, or an honors thesis, may also be used to fulfill this requirement.

<sup>7</sup> Students who are engaged in independent study AND enroll in PSYC 350 Culminating Research Experience+ in their final three semesters may use this experience as one of their 300-level seminar requirements AND a Culminating Experience.

## Minors in Psychology

Two **minors** are offered in psychology.

### Cognitive and Perceptual Sciences Minor

This minor concentrates on how we take information from the external world and use it to construct our mental world. This minor can be completed in two ways depending on whether or not a student has completed PSYC 100 Introduction to Psychology.

1. For students who take PSYC 100 Introduction to Psychology, the minor consists of:

PSYC 100	Introduction to Psychology	1
PSYC 215	Psychological Statistics (or equivalent)	1
PSYC 204	Human Cognition	1
PSYC 252	Sensation and Perception	1
PSYC 292	Research Methods in Sensation and Perception	1
or PSYC 294	Research Methods in Human Cognition	
PSYC 318	Cognitive Aging	1
or PSYC 352	Face Perception	

2. For students who do not take PSYC 100 Introduction to Psychology, the minor consists of:

PSYC 215	Psychological Statistics (or equivalent)	1
PSYC 204	Human Cognition	1
PSYC 252	Sensation and Perception	1
PSYC 292	Research Methods in Sensation and Perception	1
or PSYC 294	Research Methods in Human Cognition	
PSYC 318	Cognitive Aging <sup>5</sup>	1
PSYC 352	Face Perception	1

- <sup>5</sup> With the approval of the department chair, a research project in cognition or perception (PSYC 329 Undergraduate Research, PSYC 360 Honors Thesis) could be substituted for either PSYC 318 Cognitive Aging or PSYC 352 Face Perception for those students who do not take PSYC 100 Introduction to Psychology.

### Neuropsychology Minor

The Neuropsychology minor allows exploration of the brain and its relation to behavior. It requires six courses.

PSYC 100	Introduction to Psychology	1
PSYC 204	Human Cognition	1
PSYC 215	Psychological Statistics (or equivalent)	1
PSYC 250	Biopsychology	1
PSYC 349	Cognitive Neuroscience	1
Select one of the following: <sup>6</sup>		1
PSYC 252	Sensation and Perception	
PSYC 305	Developmental Psychopathology	
PSYC 318	Cognitive Aging	
PSYC 339	Psychology of Music	
PSYC 340	Advanced Behavioral Neuroscience	
PSYC 352	Face Perception	

- <sup>6</sup> With the approval of the department chair, independent research in neuropsychology (PSYC 329 Undergraduate Research, PSYC 360 Honors Thesis) may be used to satisfy this last requirement.

Nonmajors are encouraged to discuss sequences of courses appropriate to their academic goals with any member of the department.

#### Department Mission Statement

The Department of Psychology fosters a community of scholars, both students and faculty, committed to exploring, producing, sharing and applying knowledge in psychology, broadly conceived. We value open and critical thought and action, conducted in an ethical, inclusive, and compassionate manner, to enrich our own lives and the lives of others.

## Department Goals

- Goal 1: Students will acquire a breadth of knowledge in psychology.
- Goal 2: Students will critically evaluate psychological knowledge and its applications.
- Goal 3: Students will develop ethical values that support social responsibility in a diverse world.
- Goal 4: Students will demonstrate competencies in writing and in oral and interpersonal communication skills.
- Goal 5: Students will apply the knowledge and skills of psychology successfully in their personal and professional lives.

## Courses

### **PSYC 100. Introduction to Psychology. 1 Credit.**

**Offered Both Fall and Spring; Lecture hours:3,Other:2**

A survey of concepts, principles, and theories of an empirical science of cognition, affect, and behavior and its application.

### **PSYC 116. Statistic Literacy for 21st Century. 1 Credit.**

**Offered Summer Session Only; Lecture hours:6**

An investigation of the concepts and the reasoning underlying the interpretation of statistical information. Emphasis is on the basic methods for gathering trustworthy data and the elementary graphical and numerical techniques for analyzing it. Open to students enrolled in the BCCSP program only.

### **PSYC 133. Black Psychology. 1 Credit.**

**Offered Occasionally; Lecture hours:4**

Black self-concept, the black family and self-awareness, "black English", skin color and physical attractiveness standards, black self-esteem, black views on prejudice and discrimination. Open to BCCSP students only.

### **PSYC 135. Psychology of Health and Adjustment. 1 Credit.**

**Offered Summer Session Only; Lecture hours:3**

This course examines adjustment of individuals to their personal and social environments. Both physical and psychological adjustment will be examined. Special emphasis will be placed upon developing an understanding of skills in the area of stress, effective coping, interpersonal relationships, sexuality, work, achievement of adult maturity, psychological and physical well-being and psychotherapy. This course is designed to promote personal growth. Open to BCCSP students only.

### **PSYC 169. Psychology of Attraction and Relations. 1 Credit.**

**Offered Summer Session Only; Lecture hours:6**

Examination of how biology influences: what our mate preferences are and where they come from, the correlates of beauty, relationship initiation and maintenance, love, jealousy and mate expulsion. Prerequisite: permission of the instructor. Open to BCCSP students only.

### **PSYC 1NT. Psychology Non-traditional Study. 1-2 Credits.**

**Offered Fall, Spring, Summer; Lecture hours:Varies**

Non-traditional study in psychology. Prerequisite: permission of the instructor.

### **PSYC 203. Learning. 1 Credit.**

**Offered Both Fall and Spring; Lecture hours:3**

The study of basic mechanisms of associative learning in motivated behavior, especially Pavlovian and operant conditioning in the behaviors of various species. Prerequisite: PSYC 100 or ANBE 266 or BIOL 266 or PSYC 266 or permission of the instructor.

### **PSYC 204. Human Cognition. 1 Credit.**

**Offered Both Fall and Spring; Lecture hours:3**

A survey of the theories and methods employed in studying human mental abilities. Issues include attention, memory, language, problem solving, and decision making. Prerequisite: PSYC 100 or permission of the instructor.

### **PSYC 207. Developmental Psychology. 1 Credit.**

**Offered Both Fall and Spring; Lecture hours:3**

Study of stages, sequences and processes in normal child development, prenatal through childhood. Emphasis on interaction of nature and nurture in cognitive, social emotional development. Volunteer work component to course. Prerequisite: PSYC 100. EDUC 102 or EDUC 201 accepted as an alternate prerequisite for EDUC BS majors or instructor permission.

### **PSYC 209. Social Psychology. 1 Credit.**

**Offered Both Fall and Spring; Lecture hours:3**

Theories of social influence and social interaction, their empirical foundations and implications for the individual and society. Prerequisite: PSYC 100 or permission of the instructor.

### **PSYC 210. Psychopathology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:3,Other:1**

Covers theories and research on psychological disorders. Emphasis is on empirically based approaches to psychopathology including (but not limited to) developmental, cognitive and neuroscientific approaches. Prerequisite: PSYC 100 or permission of the instructor.

**PSYC 211. Health Psychology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:3**

An introduction to theory and research in health psychology. Prerequisite: PSYC 100 or permission of the instructor.

**PSYC 213. Abnormal and Clinical Psychology. 1 Credit.**

**Offered Both Fall and Spring; Lecture hours:3,Other:1**

A critical introduction to psychological disorders, theories of their causes, and approaches to their treatments. Includes an observational practicum in a psychiatric facility. Prerequisite: PSYC 100 or permission of the instructor.

**PSYC 215. Psychological Statistics. 1 Credit.**

**Offered Both Fall and Spring; Lecture hours:3,Other:1**

An introduction to basic statistical analyses in psychology. Prerequisite: PSYC 100 or ANBE 266 or BIOL 266 or PSYC 266 or permission of the instructor.

**PSYC 216. Introduction to Research Methods in Psychology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:2,Other:1**

An introduction to the methods used and issues faced by psychological researchers. Topics include ethics, study design (true-experimental, correlational, and quasi-experimental), data collection and analysis, and communication of empirical findings. A foundation for other research-based courses in Psychology. Prerequisites: PSYC 100 and PSYC 215 or MATH 216.

**PSYC 217. Psychopharmacology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:4**

Psychopharmacology, the study of drugs that affect behavior, begins with an appreciation for neurochemical, pharmacological and behavioral principles in order to understand actions and effects of therapeutic compounds and addictive substances, the two major categories of psychopharmacological drugs. Prerequisite: PSYC 100 or permission of the instructor. Crosslisted as NEUR 217.

**PSYC 228. Personality Psychology. 1 Credit.**

**Offered Both Fall and Spring; Lecture hours:3**

Evaluation of theory and research on personality, including consideration of classic theories and their applications in current research. Prerequisite: PSYC 100 or permission of the instructor.

**PSYC 229. Directed Study in Psychology. .5-1 Credits.**

**Offered Either Fall or Spring; Lecture hours:Varies,Other:3; Repeatable**

An entry into psychological research or other independent study directed by a faculty member. Experiences might include library work, collecting data, entering and analyzing data, and other activities associated with engagement in research and in faculty-directed inquiry. Prerequisite: PSYC 100 and instructor permission.

**PSYC 230. Critical Community Psychology. 1 Credit.**

**Offered Fall, Spring or Summer; Lecture hours:3**

Critical community psychology is about understanding and changing social factors to promote health and empowerment. This W2 service-learning course is focused on a critical approach to the field. Prerequisite: PSYC 100.

**PSYC 232. Psychology of Women. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:3**

Considers experiences of girls and women, gender differences, attitudes toward women, and issues of particular concern to women such as domestic violence, body image, and sexual assault. Crosslisted as WMST 231.

**PSYC 233. Black Psychology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:3**

Black self-concept, the black family and self-awareness, "black English", skin color and physical attractiveness standards, black self-esteem, black views on prejudice and discrimination.

**PSYC 234. Introduction to Sport Psychology. 1 Credit.**

**Offered Occasionally; Lecture hours:3**

Considers the individual difference factors influencing athletic performance (e.g., cognitive, behavioral, and emotion). Also considers psychological processes operating in groups (e.g., cohesion, leadership, aggression and audience effects).

**PSYC 236. Drugs and Behavior. 1 Credit.**

**Offered Fall Semester Only; Lecture hours:3**

How drugs of abuse work in the brain and how they affect behavior. Theories of addiction and addiction treatment, and issues of how drug use impacts individuals, families, and societies will be discussed. Prerequisite: PSYC 100.

**PSYC 237. Introduction to Language Development. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:3**

Survey of the mechanisms involved in language development. Topics include the stages in language development, theoretical approaches to language development, the biological bases of language, and atypical language development. Prerequisite: PSYC 100, or LING 105, or LING 110, or LING 230. Crosslisted as LING 237.

**PSYC 239. Environmental Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

This course explores the connections between environments (natural and built) and human psychological, emotional, cognitive, and behavioral experiences.

**PSYC 240. Critical Multicultural Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

A survey of multiculturalism as a major paradigm in psychology. Analysis of multicultural principles, concepts, and sociocultural factors and their impact on assessment, practice, and research. Course topics include an exploration of diverse worldviews, communication styles, identity development, acculturation, stereotyping, prejudice, discrimination, structural oppression, and the development of cultural competence.

**PSYC 242. Positive Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

This course explores the scientific study of factors that enable individuals and communities to thrive. The class is taught at a nearby prison with both Bucknell and incarcerated students. Prerequisites: permission of the instructor. Not open to first-year students.

**PSYC 248. Developmental Psychobiology. 1 Credit.****Offered Spring Semester Only; Lecture hours:3**

Addresses development in humans from conception through adolescence with some comparative analysis with non-humans. Emphasis on both normal and atypical cognitive, neuropsychological and neurobiological development. Prerequisite: PSYC 100 Crosslisted as NEUR 248.

**PSYC 250. Biopsychology. 1 Credit.****Offered Both Fall and Spring; Lecture hours:3**

Biological bases of behavior and their relationship to motivation, learning and perception. Prerequisite: PSYC 100 or BIOL 203 or BIOL 204 or BIOL 206 or ANBE/BIOL/PSYC 266 or permission of the instructor.

**PSYC 252. Sensation and Perception. 1 Credit.****Offered Both Fall and Spring; Lecture hours:3**

Anatomy and functions of the sensory systems: vision, audition, kinesthesia, vestibular sensation, taste and smell, with emphasis on theory and abnormalities of the human sensory systems. Prerequisite: PSYC 100 or permission of the instructor.

**PSYC 266. Animal Behavior. 1 Credit.****Offered Both Fall and Spring; Lecture hours:3**

A survey of important theories, issues, and empirical techniques in the interdisciplinary field of animal behavior, emphasizing both proximate and ultimate explanations for behavior. Crosslisted as ANBE 266 and BIOL 266.

**PSYC 270. South Africa: Social Entrepreneurship. 1 Credit.****Offered Summer Session Only; Lecture hours:15**

A Bucknell in South Africa course examining the legacy of apartheid and the role of social entrepreneurship in transforming communities. Students are placed in community organizations in nearby townships. Prerequisite: permission of the instructor. Crosslisted as ECON 270 and MSUS 270 and UNIV 284 and WMST 275.

**PSYC 285. Advanced Methods in Critical Community Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Laboratory and/or field research on community psychology and social justice. Prerequisites: PSYC 100, PSYC 215 or MATH 216, and PSYC 216.

**PSYC 286. Advanced Methods Developmental Psychobiology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:Varies,Other:3**

This course introduces students to various research methods and approaches relevant to the study of developmental psychopathology, including children with neurodevelopmental and neuropsychiatric disorders. Prerequisites: PSYC 100 and PSYC 216 and (PSYC 215 or MATH 216) and (PSYC 210 or concurrent enrollment or PSYC 248 or concurrent enrollment).

**PSYC 287. Advanced Methods in Critical Multicultural Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:Varies,Other:3**

An introduction to research methods in critical multicultural psychology designed to understand the influence of culture and context on the physical and mental health of historically marginalized diverse populations. Students will use qualitative, quantitative, and mixed methods to examine health disparities involving unfair social, economic, and/or environmental disadvantages.

**PSYC 288. Advanced Methods in Language. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Research methods in language; especially development and acquisition in infants and toddlers. Prerequisites: PSYC 215 or MATH 216 and PSYC 216 or PSYC 100.

**PSYC 289. Advanced Methods in Health Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:Varies,Other:3**

Introduction to research methods commonly used in health psychology. Prerequisites: PSYC 215 or MATH 216 and prerequisite or corequisite PSYC 211 and PSYC 216.

**PSYC 290. Advanced Methods in Biopsychology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:Varies,Other:3**

Laboratory research to in principles of Biopsychology. Prerequisites: PSYC 215 or MATH 216 and PSYC 216 or ANBE 296, and prerequisite or corequisite PSYC 250 or NEUR 254, or permission of the instructor.

**PSYC 291. Advanced Methods in Abnormal Psychology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:Varies,Other:3**

Laboratory research methods course in abnormal and clinical psychology or psychopathology. Prerequisites: PSYC 100 and PSYC 216 and (MATH 216 or PSYC 215) and (PSYC 210 or PSYC 213 or PSYC 248).

**PSYC 292. Advanced Methods in Sensation and Perception. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:Varies,Other:3**

Laboratory and/or field research to accompany PSYC 252 Sensation and Perception. Prerequisites: PSYC 215 or MATH 216 and prerequisite or corequisite PSYC 252 and PSYC 216.

**PSYC 293. Advanced Methods in Learning. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:Varies,Other:3; May require dissection or live animal experimentation**

Laboratory and/or field research to accompany PSYC 203 Learning. Prerequisites: (PSYC 215 or MATH 216), (PSYC 216 or PSYC/ANBE 296), and PSYC 203.

**PSYC 294. Advanced Methods in Human Cognition. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:Varies,Other:3**

Laboratory to accompany PSYC 204 Human Cognition. Prerequisites: PSYC 216 and (PSYC 215 or MATH 216) and (PSYC 204 or concurrent enrollment or PSYC 252 or concurrent enrollment) or permission of the instructor.

**PSYC 296. Advanced Methods in Animal Behavior. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:Varies,Other:3**

Laboratory and/or field research to accompany ANBE 266, BIOL 266, or PSYC 266. Prerequisites: (PSYC 215 or MATH 216) and (BIOL 201 or BIOL 202 or BIOL 203 or BIOL 204 or BIOL 205 or PSYC 216) and (ANBE 266 or BIOL 266 or PSYC 266 or concurrent enrollment). Crosslisted as ANBE 296.

**PSYC 297. Advanced Methods in Developmental Psychology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:Varies,Other:3**

Students conduct observational research of children's behavior. Prerequisites: PSYC 100 and (PSYC 215 or MATH 216) and PSYC 216 and any PSYC 200-level course.

**PSYC 298. Advanced Methods in Personality. 1 Credit.**

**Offered Occasionally; Lecture hours:Varies,Other:3**

Laboratory, field, or applied research to accompany PSYC 228 Personality Psychology. Prerequisites: PSYC 100, PSYC 215 or MATH 216, and PSYC 216.

**PSYC 299. Advanced Methods in Social Psychology. 1 Credit.**

**Offered Both Fall and Spring; Lecture hours:Varies,Other:3**

Laboratory-based research on topics in social psychology. Prerequisites: PSYC 100, PSYC 209, (PSYC 215 or MATH 216), and PSYC 216.

**PSYC 2NT. Psychology Non-traditional Study. .5-2 Credits.**

**Offered Fall, Spring, Summer; Lecture hours:Varies,Other:Varies**

Non-traditional study in psychology. Prerequisite: permission of the instructor.

**PSYC 300. Infancy. 1 Credit.**

**Offered Spring Semester Only; Lecture hours:3**

Advanced seminar on human infancy as viewed from cognitive, developmental, and evolutionary psychology. Includes implications for infant survival and early education. Prerequisites: PSYC 204 or PSYC 207 or PSYC 248 or PSYC 252 or PSYC 266 and permission of the instructor. Crosslisted as PSYC 600.

**PSYC 302. Cognitive Development. 1 Credit.**

**Offered Spring Semester Only; Lecture hours:3**

Advanced seminar on how our cognitive system changes from the prenatal period to adolescence. Focuses on selected topics in the development of attention, memory, language, and concepts. Includes implications for education in formal and informal settings. Prerequisite: PSYC 204 or PSYC 207.

**PSYC 303. Critical Psychologies. 1 Credit.**

**Offered Alternating Spring Semester; Lecture hours:3**

Critical psychologies (e.g., critical liberation, radical) are progressive alternatives to mainstream psychology, emphasizing untoward consequences of the mainstream focus on the individual. Prerequisite: PSYC 100 or permission of the instructor. A community-engaged practicum is part of the course. Crosslisted as PSYC 603.

**PSYC 304. Advanced Developmental Psychology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:3**

Analysis of selected topics in human development, such as gender issues, or religious and spiritual development, or other topics. Prerequisite: PSYC 207 or permission of the instructor. Crosslisted as PSYC 604.

**PSYC 305. Neurodevelopmental Disorders. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Examines the genomic, neural, and environmental bases that underlie the development of children with developmental disabilities, including autism spectrum disorders, intellectual disabilities, and specific genetic/genomic syndromes. Takes a developmental psychopathology perspective, highlighting the reciprocal nature of the study of typical and atypical development. Prerequisites: NEUR 248/PSYC 248 and instructor permission. Crosslisted as NEUR 305 and PSYC 605.

**PSYC 306. Critical Trauma Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

This course is a community-engaged seminar on psychological trauma, posttraumatic stress and the contexts in which people become traumatized. Prerequisite: PSYC 100 or permission of the instructor. Crosslisted as PSYC 606.

**PSYC 307. Culture and Child Development. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Study of culture-specific and universal processes in child development in diverse societies. Focus on cultural influences on social, emotional, and cognitive development, and on parenting, family, and education contexts and practices. Prerequisite: PSYC 207 or permission of the instructor. Crosslisted as PSYC 607.

**PSYC 309. Appetite and Eating Behavior. 1 Credit.****Offered Occasionally; Lecture hours:3**

Advanced seminar considering psychological factors involved in appetite, food preferences, and food intake. Prerequisite: PSYC 203. Crosslisted as PSYC 609.

**PSYC 311. Advanced Health Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Advanced seminar considering current topics in health psychology, potentially including health behavior change, adolescent risk behavior, and/or social determinants of health. Prerequisite: permission of the instructor. Crosslisted as PSYC 611.

**PSYC 312. Biopsychology of Appetite and Obesity. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Reading and discussion of scholarly research on the neural, physiological, and endocrine signals that influence the psychology of appetite, food reward, eating behavior, and obesity in humans and animal models. Prerequisite: PSYC 250 or NEUR 254. Crosslisted as NEUR 312 and PSYC 612.

**PSYC 313. Researching Behavioral Neuroscience. 1 Credit.****Offered Both Fall and Spring; Lecture hours:3**

Following a general orientation to behavioral genetics and pharmacology using mice, we will conduct group experiments. Each student will then develop and conduct an independent research project. Prerequisites: PSYC 215 or MATH 216 and PSYC 250 or NEUR 254 or an applied research methods course and permission of instructor. Crosslisted as NEUR 313 and NEUR 613 and PSYC 613.

**PSYC 314. Cognitive Development Research. 1 Credit.****Offered Occasionally; Lecture hours:3**

Advanced seminar examining how very young children understand words. Students conduct collaborative research projects culminating in oral and written reports. Prerequisites: PSYC 204 or PSYC 207 or PSYC 288 or LING 230 and permission of the instructor.

**PSYC 315. Language Development. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Advanced seminar examining how children learn sounds, words, and grammar. Focus on reading primary research sources. Special topics based on students' interests. Prerequisites: PSYC 207 or PSYC 204 or LING 230 and a PSYC methods course and permission of the instructor. Crosslisted as PSYC 615.

**PSYC 316. Advanced Social Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Consideration of experimental and theoretical issues in social psychology. Prerequisites: PSYC 209 or PSYC 228 and any PSYC research methods class or permission of the instructor. Crosslisted as PSYC 616.

**PSYC 317. Comparative Animal Cognition. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Advanced seminar in issues of nature/nurture, learning, development, and adaptation, in behaviors such as foraging, mating, and communication in several species. Prerequisites: PSYC 266 or ANBE 266 and PSYC 203. Crosslisted as PSYC 617.

**PSYC 318. Cognitive Aging. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Seminar discussing the development and changes in cognition in senior citizens. Topics include memory, language, attention, and decision-making. Prerequisite: PSYC 252 or PSYC 204 and permission of the instructor. Crosslisted as PSYC 618.

**PSYC 319. Topics in Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3; Repeatable**

Occasional seminars on selected topics of current interest in psychology. Prerequisite: permission of the instructor. Crosslisted as PSYC 619.

**PSYC 320. Children's Studies. 1 Credit.****Offered Fall Semester Only; Lecture hours:3,Other:Varies**

Critical examination of childhood from multiple disciplinary lenses. Topics include child labor, child soldiers, children's spirituality, children in diverse cultures, children the arts, and social class and race as influences in children's lives. In this service-learning course students work with children/youth in field placements. Open to Seniors by permission. Crosslisted as PSYC 620.

**PSYC 321. Neuroethics. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Students will consider ethical, moral, legal and social implications that come from a growing ability to understand, predict and change human behavior. In a seminar format we'll consider right and wrong use of neuroscientific knowledge in clinical settings, law and criminal justice, national defense, economics, business and education. Crosslisted as NEUR 321 and PSYC 621.

**PSYC 322. Clinical Neuroscience. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Through case studies, guest lectures, and review of primary literature this course will explore fundamental mechanisms that underlie diseases and disorders of the brain and central nervous system. Prerequisites: PSYC 250 or NEUR 254. Open to Biology, Neuroscience, and Psychology majors. Crosslisted as NEUR 322 and PSYC 622.

**PSYC 323. Meeting of the Minds: The Intersection of Buddhism and Cognitive Therapy. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

This course will explore the interchange between Buddhist philosophy and psychological research and practice as both disciplines support and even emphasize experimental investigation. The course will include experiential mindfulness practices, a cornerstone of Buddhist practice that has been incorporated into some therapies to help those suffering from psychological distress. Crosslisted as PSYC 623.

**PSYC 324. Advanced Psychological Statistics. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

A survey of advanced statistical techniques with emphasis on analysis and interpretation of experimental and correlational data. Prerequisites: PSYC 215 or equivalent and permission of the instructor. Crosslisted as PSYC 624.

**PSYC 325. Personality, Psychopaths, and Serial Killers. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Considers personality disorders with a focus on psychopathy and serial murders. Biological and environmental causes of psychopathy are considered as well as the developmental course of the condition and ethics of treatment. Prerequisite: PSYC 228 or PSYC 209 or PSYC 210 or permission of the instructor. Crosslisted as PSYC 625.

**PSYC 326. Language and Cognition. 1 Credit.****Offered Spring Semester Only; Lecture hours:3**

Advanced study of language perception, production, acquisition, evolution, computational models and neural mechanisms. Focus on recent developments in the field. Prerequisite: a 200-level linguistics course or a 200-level psychology course from cluster A. Crosslisted as LING 326 and PSYC 626.

**PSYC 328. Undergraduate Research II. 1 Credit.****Offered Fall, Spring or Summer; Lecture hours:Varies,Other:3; Repeatable**

Research or other independent study with a faculty member outside of the psychology department. Research topics may be posed by students or faculty. Cannot be counted toward the psychology major. Prerequisites: permission of the supervisor, Psychology Chair approval and permission of the instructor.

**PSYC 329. Undergraduate Research. .5-1 Credits.****Offered Fall, Spring or Summer; Lecture hours:Varies,Other:3; Repeatable**

Research or other independent study on any aspect of psychology. Research topics may be posed by students or faculty. Prerequisite: permission of the instructor.

**PSYC 334. Advanced Positive Psychology. 1 Credit.****Offered Either Fall or Spring; Lecture hours:Varies,Other:3**

Advanced seminar on the science of human flourishing. Topics include: meaning, resilience, character strengths, self-compassion, social connections, flow, and mindfulness. Both individual actions and social conditions that affect human flourishing will be considered. Prerequisite: PSYC 207 or PSYC 209 or PSYC 228 or PSYC 230 or PSYC 242.

**PSYC 337. Child Development in Denmark. 1 Credit.****Offered Summer Session Only; Lecture hours:Varies,Other:3**

Core course in Bucknell in Denmark summer program. Focus on child development in Denmark and Nordic countries with comparison to U.S. Practicum included. Prerequisites: enrollment in Bucknell in Denmark program and permission of the instructor.

**PSYC 339. Psychology of Music. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Seminar examining how musicians and non-musicians comprehend, remember, perform, and respond to music, including developmental aspects. Some background in music required. Prerequisites: PSYC 204 or PSYC 252 and permission of the instructor. Crosslisted as PSYC 639.

**PSYC 340. Advanced Behavioral Neuroscience. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Advanced study of the relationship between the brain and behavior. Seminar discussion of complex problems in the field of behavior neuroscience including genetics, mood disorders, drug abuse, cognition and consciousness. Prerequisite: PSYC 250 or NEUR 254 or permission of the instructor. Crosslisted as PSYC 640 and NEUR 340 and NEUR 640.

**PSYC 341. Neurophysiology of Wellbeing. 1 Credit.****Offered Occasionally; Lecture hours:3,Recitation:1**

We will investigate the neurophysiological systems involved in wellbeing and stress including the autonomic nervous system, the gut-brain axis, and the endocrine system. For this investigation, we will read, analyze, and discuss primary and secondary literature on these topics. Crosslisted as NEUR 310 and PSYC 641.

**PSYC 344. Developmental Brain Research. 1 Credit.****Offered Spring Semester Only; Lecture hours:3; Repeatable**

Students learn a variety of assessment techniques in developmental neuropsychology and neuroscience (including EEG) and conduct quantitative research culminating in written and oral reports. Crosslisted as PSYC 644 and NEUR 344 and NEUR 644. Prerequisite: permission of the instructor.

**PSYC 348. Behavioral Pharmacology. 1 Credit.****Offered Spring Semester Only; Lecture hours:3**

Focus on drugs that affect the nervous system, drugs of abuse, therapeutic drugs, drug action, behavioral changes as a result of long-term drug use, animal models and human studies. Prerequisites: PSYC 250 or NEUR 254. Crosslisted as NEUR 348 and PSYC 648.

**PSYC 349. Cognitive Neuroscience. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Brain mechanisms of language, memory, perception, emotion, and other higher-order processes, as revealed by studies of task-related human brain activity or neural pathology. Prerequisites: PSYC 204 or PSYC 250 or PSYC 252 or NEUR 254 and permission of the instructor. Crosslisted as PSYC 649.

**PSYC 350. Culminating Research Experience+. 1 Credit.****Offered Fall Semester Only; Lecture hours:3**

This seminar, worth 1 credit, turns a research project into a Culminating Experience. Covers research, ethics, proposal writing, public speaking, data presentation, and other professional issues. Course meets only 1 hour a week most weeks. Students should not register for PSYC 329 or PSYC 360. Prerequisite: permission of the instructor.

**PSYC 352. Face Perception. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Advanced seminar in face perception, including issues of holism, uniqueness, language, emotion, and race. Prerequisites: (LING 237 or NEUR 254 or PSYC 204 or PSYC 237 or PSYC 252) and permission of the instructor. Crosslisted as PSYC 652.

**PSYC 360. Honors Thesis. 1 Credit.****Offered Both Fall and Spring; Lecture hours:Varies; Repeatable**

Prerequisites: permission of the department and permission of the instructor.

**PSYC 368. Social Neuroscience. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3,Other:1**

Study of the brain basis of social behaviors such as bonding and attachment, parental behavior, play, social cognition, and the benefits of social support. We will investigate what is known about social function in the brains of species that have evolved to be social species, including humans. Crosslisted as NEUR 368 and PSYC 668.

**PSYC 369. Psychology of Beauty and Attraction. 1 Credit.****Offered Either Fall or Spring; Lecture hours:3**

Examination of research on beauty and attraction from an evolutionary perspective. Prerequisites: PSYC 209 and PSYC 216 or PSYC 299, and permission of the instructor. Crosslisted as PSYC 669.

**PSYC 370. Primate Behavior and Ecology. 1 Credit.****Offered Fall Semester Only; Lecture hours:3; May require dissection or live animal experimentation**

Introduction to research on prosimians, monkeys, and apes with emphasis on the evolutionary origin of diversity, habitat use, social structure, social behavior, and cognitive abilities. Crosslisted as ANBE 370 and ANBE 670 and BIOL 370 and BIOL 670 and PSYC 670.

**PSYC 371. Primate Cognition. 1 Credit.****Offered Alternate Fall or Spring; Lecture hours:3; May require dissection or live animal experimentation**

An investigation into the cognitive abilities and capacities of nonhuman primates emphasizing a comparative perspective. Prerequisites: ANBE 266 or BIOL 266 or PSYC 266 and permission of the instructor. Crosslisted as ANBE 371 and ANBE 671 and PSYC 671.

**PSYC 372. Comparative Cognition. 1 Credit.****Offered Both Fall and Spring; Lecture hours:3,Other:3**

Advanced seminar exploring cognition and behavior from evolutionary and comparative perspectives. Topics will include social behavior, memory, communication, spatial cognition, learning, and meta-cognition. Prerequisite: (ANBE 266 or BIOL 266 or PSYC 266) or (PSYC 203 or PSYC 204). Crosslisted as PSYC 672 and ANBE 372 and ANBE 672.

**PSYC 373. Psychology of Race and Gender. 1 Credit.**

**Offered Occasionally; Lecture hours:3**

Critical analysis of major theories. Emphasis on experimental research findings in the areas of racism, discrimination, gender difference, sexual violence, etc. Prerequisite: permission of the instructor. Crosslisted as PSYC 673.

**PSYC 374. Latinx Psychology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:3**

A seminar that examines the psychological research literature related to Latinxs in the U.S. It considers the influences of Latinx cultural values, practices, contexts and experiences on physical and mental health outcomes. Open to juniors seniors only or by permission of the instructor. Crosslisted as LAMS 374 and PSYC 674.

**PSYC 375. Child Health Psychology. 1 Credit.**

**Offered Either Fall or Spring; Lecture hours:3**

Study of the impact that pediatric illness has on child mental health and child development. Focus on the management of chronic illness, adherence, mental health concerns, coping, and family factors. Prerequisite: PSYC 207 or permission of the instructor. Crosslisted as PSYC 675.

**PSYC 3NT. Psychology Non-traditional Study. 1-2 Credits.**

**Offered Fall, Spring, Summer; Lecture hours:Varies,Other:Varies**

Non-traditional study course in psychology. Prerequisite: permission of the instructor.