Department of Psychology

Chair: Dr. Christopher Henrich
Director of Undergraduate Studies: Dr. Maria Hopkins

The curriculum in psychology provides a flexible program for the psychology major leading to the Bachelor of Science degree. Alternatively, students can earn a minor in psychology or take advantage of the numerous course offerings that are open to all students. The department provides a variety of experiences to give students an understanding of the basic principles and mechanisms of behavior. The scientific method is emphasized throughout the curriculum. Students with a major or minor in psychology are encouraged to obtain first-hand experience with both the creation of new knowledge (research) and the application of that knowledge in community and treatment settings. There are many opportunities for students to gain firsthand research experience by working with individual faculty members in a variety of laboratory, clinical, and field research settings. In addition, numerous community and treatment facilities provide settings for students to observe and participate in the application of psychological principles to the solution of individual and social problems.

In addition to providing a major field of study as part of a liberal arts and science education, the B.S. degree in psychology prepares students for graduate study in psychology. The degree also provides a strong intellectual foundation for a variety of careers in areas such as teaching, counseling, social work, human factors engineering, community planning, sales, management, personnel administration, ministry, law, politics, and various health professions, including psychiatry, nursing, medicine, optometry, public health, and physical and occupational therapy. For information on preparation for these careers, see the Psychology Department Undergraduate website, http://www.uab.edu/cas/psychology/undergraduate

Psychology is an evolving discipline, and after a period of time the material taught in a psychology course is no longer current. For this reason, the Department of Psychology reserves the right to deny credit toward its major and minors for Elementary Statistical Methods (PY 216) and upper level (300 and above) courses completed more than 12 years prior to graduation.

Graduate Program

The Department of Psychology offers programs of study leading to the Doctor of Philosophy (Ph.D.) degree in three areas of psychology: medical clinical psychology (co-sponsored by the School of Medicine), behavioral neuroscience, and lifespan developmental psychology. Although the Master of Science (M.S.) degree is awarded as an intermediate degree in some Ph.D. programs, a terminal M.S. degree program is not offered. Individuals interested in the graduate program should contact the Department of Psychology or the UAB Graduate School.

Bachelor of Science with a Major in Psychology

To qualify for a B.S. degree in psychology, students must complete a minimum of 38 semester hours of courses in psychology and 6 semester hours of coursework in biology, chemistry, or physics, as listed below.

### Requirements

#### Biology, Chemistry, or Physics

<table>
<thead>
<tr>
<th>Select two courses from the following areas:</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology (BY) 1</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry (CH) 1</td>
<td></td>
</tr>
<tr>
<td>Physics (PH) 1</td>
<td></td>
</tr>
</tbody>
</table>

#### General Requirements 2

<table>
<thead>
<tr>
<th>Select three other Psychology (PY) courses, including two courses at the 300 level not otherwise required 3</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PY 101 Introduction to Psychology or PY 201 Honors Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PY 212 Developmental Psychology or PY 222 Honors Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PY 215 Research Literacy in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PY 216 Elementary Statistical Methods (Concurrent enrollment in PY 216L is required.)</td>
<td>4</td>
</tr>
<tr>
<td>PY 216L Elementary Statistical Methods Laboratory</td>
<td></td>
</tr>
<tr>
<td>PY 218 Abnormal Psychology or PY 228 Honors Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PY 253 Brain, Mind and Behavior</td>
<td>3</td>
</tr>
<tr>
<td>PY 316 Research Methods in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PY 490 Psychology Capstone/SL</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Psychology Electives

Select two courses from the following areas:

- PY 216L Elementary Statistical Methods Laboratory
- PY 218 Abnormal Psychology
- PY 253 Brain, Mind and Behavior
- PY 316 Research Methods in Psychology
- PY 490 Psychology Capstone/SL

#### Additional Coursework

Select two courses at the 400 level not otherwise required

#### Total Hours

46

1. BY 111, BY 112, CH 100 and PH 100 may not be taken to satisfy this requirement. Most biology, chemistry, and physics courses that satisfy the Area III Core Curriculum requirement will also satisfy this requirement of the major. It is recommended that students consult with the psychology advisor about this requirement.

2. Completing PY 101 or PY 201 and PY 212 will also satisfy 6 of the 12 required hours in Core Curriculum Area IV.

3. PY 396 Teaching Practicum in Psychology, PY 397 Community-Based Practicum in Psychology and PY 398 Research Practicum in Psychology may not be used to fulfill more than three hours of this requirement.

Grade and Residency Requirement

A grade of C or better is required in all courses applied to the major. At least 15 hours at the 300 level or above, including at least 9 hours at the 400 level, must be completed at UAB.

Additional Requirements

Minor

A minor is recommended but not required for this degree.

General Electives

Students must take general electives to reach the 120 semester hour graduation requirement.

Students are encouraged to assist with ongoing research projects and/or obtain experience with the application of psychology in teaching or community settings. Academic credit may be earned for these experiences. Students may apply a maximum of 3 semester hours of PY 398 (research), and/or PY 396 (teaching), and/or PY 397 (community)
to their major and minor requirements. Students preparing to attend graduate school in psychology are strongly encouraged to participate in the Psychology Honors Program, get involved faculty research projects, and develop a strong background in natural sciences, mathematics, and computer science.

Psychology majors may be required to complete a general psychology examination at the time they declare psychology as their major, as well as a second examination upon completion of the course requirements for a B.S. degree in psychology. Although these examinations may be required for graduation, they are intended for program assessment purposes only. Performance on these examinations will not affect students’ grade point averages, nor will they be a factor in determining whether students qualify for the baccalaureate degree.

Psychology majors have two full-time academic advisors available. Please contact CAS Advising, Heritage Hall Building, (205) 934-6135.

### Proposed Program of Study for a Major in Psychology

#### Freshman

<table>
<thead>
<tr>
<th>First Term</th>
<th>Hours</th>
<th>Second Term</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PY 101</td>
<td>3</td>
<td>PY 212</td>
<td>3</td>
</tr>
<tr>
<td>EH 101</td>
<td>3</td>
<td>PY 215</td>
<td>3</td>
</tr>
<tr>
<td>Core Curriculum Area IV: History 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA 110</td>
<td>3</td>
<td>EH 102</td>
<td>3</td>
</tr>
<tr>
<td>Core Curriculum Area II: Fine Art 2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Sophomore

<table>
<thead>
<tr>
<th>First Term</th>
<th>Hours</th>
<th>Second Term</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Curriculum Area II: Literature 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PY 216</td>
<td>4</td>
<td>PY 316</td>
<td>3</td>
</tr>
<tr>
<td>PY 216L</td>
<td>0</td>
<td>Core Curriculum Area II: Humanities</td>
<td></td>
</tr>
<tr>
<td>PY 218</td>
<td>3</td>
<td>Minor</td>
<td>3</td>
</tr>
<tr>
<td>Core Curriculum Area III: Natural Science 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Junior

<table>
<thead>
<tr>
<th>First Term</th>
<th>Hours</th>
<th>Second Term</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology (PY) 300-level 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology (PY) 300-level 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Curriculum Area III: Natural Science with Lab 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor</td>
<td>3</td>
<td>General Electives</td>
<td>7</td>
</tr>
<tr>
<td>General Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Senior

<table>
<thead>
<tr>
<th>First Term</th>
<th>Hours</th>
<th>Second Term</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PY 490</td>
<td>3</td>
<td>Psychology (PY) 400-level</td>
<td>3</td>
</tr>
<tr>
<td>Psychology Elective (Select One):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PY 396</td>
<td>3</td>
<td>PY 396</td>
<td>3</td>
</tr>
<tr>
<td>PY 397</td>
<td>3</td>
<td>PY 397</td>
<td>3</td>
</tr>
<tr>
<td>PY 398</td>
<td>3</td>
<td>PY 398</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minor</th>
<th>3</th>
<th>General Electives</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electives</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Total credit hours: 121

1. Select One: HY 101, HY 102, HY 104, HY 105, HY 120 or HY 121.
2. Select One: ARH 101, ARH 203, ARH 204, ARH 206, MU 120, THR 100, THR 105 or THR 200.
3. Select One: EH 216, EH 217, EH 218, EH 221, EH 222, EH 223 or EH 224.
4. Must include six hours of approved Biology (BY), Chemistry (CH), or Physics (PH) courses.

### Minor in Psychology

To qualify for a minor in psychology, students must complete a minimum of 18 semester hours of courses in psychology, as listed below.

#### Requirements

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory Psychology Course</td>
</tr>
<tr>
<td>PY 101 Introduction to Psychology 1</td>
</tr>
<tr>
<td>or PY 201 Honors Introduction to Psychology</td>
</tr>
<tr>
<td>Advanced Psychology</td>
</tr>
<tr>
<td>Select nine hours from Psychology (PY) courses at the 300 level or above 2</td>
</tr>
<tr>
<td>Psychology Electives</td>
</tr>
<tr>
<td>Select six hours from Psychology (PY) courses not otherwise required. 2</td>
</tr>
</tbody>
</table>

Total Hours: 18

1. PY 101 Introduction to Psychology or PY 201 Honors Introduction to Psychology may also be eligible to count toward Core Curriculum Area IV; check the Core Curriculum for your particular major.
2. PY 396 Teaching Practicum in Psychology, PY 397 Community-Based Practicum in Psychology, and PY 398 Research Practicum in Psychology may not be used to fulfill more than three hours of this requirement.

### Grade & Residency Requirement

A grade of “C” or better is required in all courses applied to the minor. At least six hours at the 300-level or above must be completed at UAB.

### Psychology Honors Program

#### Purpose

Participation in the Psychology Honors Program provides an enriched learning environment for psychology majors with excellent academic records who are interested in pursuing graduate study and a career in psychology, medicine, or other health related professions. The program provides students with a strong foundation in behavioral science through an enhanced program of study and the opportunity to conduct research with an individual member of the faculty. Students who complete the program will qualify for the B.S. in psychology and graduate “With Honors in Psychology.”

#### Eligibility

Students may apply for admission to the program at any time after being at UAB for at least one semester, provided they will attend UAB for at least three additional semesters in order to complete their honors thesis.
and program-specific coursework (PY 399 and PY 499). Students should submit an application form (available from their psychology advisor or the department website) to the Director of the Psychology Honors Program (mgcrowe@uab.edu), and an interview will be scheduled.

For admission to the program students should have a minimum GPA of 3.50 in psychology coursework, an overall GPA of 3.50 or above (at UAB as well as any transfer institution), and grades of A or B in core English and Mathematics courses.

Requirements

Students in the Psychology Honors program must complete a minimum of 48 semester hours of courses in psychology and 6 semester hours of coursework in biology, chemistry, or physics, as listed below.

Grade and Residency Requirement

A grade of C or better is required in all courses applied to these requirements. Overall GPA, Psychology GPA, and Institutional GPA (courses taken at UAB) must all be at least 3.50 and maintained at a minimum 3.50 to remain in and graduate from the Honors Program. At least 18 hours at the 300 level or above, including all honors and practicum courses must be completed at UAB.

Requirements

<table>
<thead>
<tr>
<th>Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Biology, Chemistry or Physics</td>
</tr>
<tr>
<td>6</td>
<td>Select two courses from the following:</td>
</tr>
<tr>
<td></td>
<td>Biology (BY) 1</td>
</tr>
<tr>
<td></td>
<td>Chemistry (CH) 1</td>
</tr>
<tr>
<td></td>
<td>Physics (PH) 1</td>
</tr>
<tr>
<td>3</td>
<td>General Requirements</td>
</tr>
<tr>
<td>PY 101</td>
<td>Introduction to Psychology 2</td>
</tr>
<tr>
<td>PY 201</td>
<td>Honors Introduction to Psychology</td>
</tr>
<tr>
<td>PY 212</td>
<td>Developmental Psychology 2</td>
</tr>
<tr>
<td>PY 215</td>
<td>Research Literacy in Psychology</td>
</tr>
<tr>
<td>PY 216</td>
<td>Elementary Statistical Methods &amp; 216L and Elementary Statistical Methods Laboratory</td>
</tr>
<tr>
<td>PY 218</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>PY 253</td>
<td>Brain, Mind and Behavior</td>
</tr>
<tr>
<td>PY 316</td>
<td>Research Methods in Psychology</td>
</tr>
<tr>
<td>9</td>
<td>Advanced Coursework</td>
</tr>
<tr>
<td></td>
<td>Select three of the following:</td>
</tr>
<tr>
<td>PY 303</td>
<td>Introduction to Cognitive Science</td>
</tr>
<tr>
<td>PY 312</td>
<td>Advanced Developmental Psychology</td>
</tr>
<tr>
<td>PY 313</td>
<td>Language: Mind, Brain, and Society</td>
</tr>
<tr>
<td>PY 325</td>
<td>Clinical Child Psychology</td>
</tr>
<tr>
<td>PY 350</td>
<td>Personality and Intellectual Assessment</td>
</tr>
<tr>
<td>PY 353</td>
<td>Behavioral Neuroscience</td>
</tr>
<tr>
<td>PY 354</td>
<td>Autism: Brain and Cognition</td>
</tr>
<tr>
<td>PY 361</td>
<td>Psychology of Learning</td>
</tr>
<tr>
<td>PY 363</td>
<td>Cognitive Psychology</td>
</tr>
<tr>
<td>PY 370</td>
<td>Personality</td>
</tr>
<tr>
<td>PY 372</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>PY 380</td>
<td>The Sensory and Perceptual Brain</td>
</tr>
<tr>
<td>PY 390</td>
<td>Animal Behavior</td>
</tr>
<tr>
<td>5</td>
<td>Honors Courses</td>
</tr>
<tr>
<td></td>
<td>Complete 5 hours of honors coursework:</td>
</tr>
<tr>
<td>PY 399</td>
<td>Psychology Honors Seminar</td>
</tr>
<tr>
<td>&amp; PY 499</td>
<td>and Psychology Honors Thesis 3</td>
</tr>
</tbody>
</table>

Electives 6

Select two courses from the following:

<table>
<thead>
<tr>
<th>Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Complete 5 hours of practicum coursework.</td>
</tr>
<tr>
<td>PY 399</td>
<td>Research Practicum in Psychology</td>
</tr>
<tr>
<td>PY 396</td>
<td>Teaching Practicum in Psychology</td>
</tr>
<tr>
<td>or PY 397</td>
<td>Community-Based Practicum in Psychology</td>
</tr>
</tbody>
</table>

Total Hours 57

1. BY 111, BY 112, CH 100, and PH 100 may not be taken to satisfy this requirement. Most biology, chemistry, and physics courses that satisfy the Area III Core Curriculum requirement will also satisfy this requirement of the major. It is recommended that students consult with the psychology advisor about this requirement.

2. Completing PY 101 or PY 201 and PY 212 will also satisfy 6 of the 12 required hours in Core Curriculum Area IV.

3. Take PY 399 Psychology Honors Seminar in any three semesters after joining honors program. Take PY 499 Psychology Honors Thesis concurrently with the last enrollment in PY 399. Note that these courses are only offered in the Spring and Fall semesters. If these classes are completed, students fulfill the requirement of Psychology Capstone and do not take PY 490.

4. Take at least 5 hours of PY 398 Research Practicum in Psychology hours of and at least 1 hour of PY 396 Teaching Practicum in Psychology or PY 397 Community-Based Practicum in Psychology.

Requirements for the general psychology examination, described above for the major in psychology, also apply to students in the Psychology Honors Program. As psychology majors, honors students have a full-time academic advisor available in the psychology department (Dr. Eric Gampher); Room 415 Campbell Hall; Telephone: (205) 934-3850; E-mail: redfox@uab.edu

Contact

For more information and an application for admission to the Psychology Honors Program, see the undergraduate psychology web site at http://www.uab.edu/cas/psychology/undergraduate. You can also contact the Honors Program Director, Dr. Michael Crowe, at mgcrowe@uab.edu

Undergraduate Certificate in Mental Health

<table>
<thead>
<tr>
<th>Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Select two courses from the following:</td>
</tr>
<tr>
<td>PY 305</td>
<td>Medical Psychology</td>
</tr>
<tr>
<td>PY 322</td>
<td>Applied Behavior Analysis</td>
</tr>
<tr>
<td>PY 325</td>
<td>Clinical Child Psychology</td>
</tr>
<tr>
<td>PY 335</td>
<td>Motivation and Emotion</td>
</tr>
<tr>
<td>PY 418</td>
<td>Psychotherapy and Behavior Change</td>
</tr>
<tr>
<td>15</td>
<td>Total Certificate</td>
</tr>
</tbody>
</table>

1. PY 101/PY 201 and PY 218/PY 228 may count towards the Psychology Major and the Mental Health Certificate.
Courses

PY 101. Introduction to Psychology. 3 Hours.
Application of scientific method to behavior. Areas of psychology including learning, motivation, perception, physiological, comparative, personality, abnormal, social, clinical, child development, and individual differences. This course meets the Core Curriculum requirements for Area IV: Social and Behavioral Sciences.

PY 107. Psychology of Adjustment. 3 Hours.
Adaptive behavior: theories, research, and personal applications relevant to desirable behavior patterns; interpersonal skills and self-control techniques.

PY 108. Human Sexuality. 3 Hours.
Biological and psychological bases of human sexual behavior. Genetic, hormonal, and learning foundations for development of sexual and sex-related structures and of psychosexual identity and behavior. Adult sexual structures and behavior, conception control, pregnancy, lactation and parentalism, drugs and reproduction, and sexual pathology and variances.

PY 109. Drugs and Human Behavior. 3 Hours.
Historical and cultural perspectives on drug use by humans. Major classes of drugs; effects, side effects, and toxicity. Mechanisms of drug action, drug abuse, government regulations, and use of psychoactive drugs in treatment of mental disorders.

PY 125. Introduction to Forensic Psychology. 3 Hours.
Overview of issues involving the intersection of law and psychology. Focus on role of clinical assessment of competency, scientific jury selection, expert witnesses in court, punishment and sentencing, and related issues.

PY 201. Honors Introduction to Psychology. 3 Hours.
Advanced seminar in scientific study of behavior and cognitive processes. This course meets the Core Curriculum requirements for Area IV: Social and Behavioral Sciences. Permission of Director of Undergraduate Studies required.

PY 212. Developmental Psychology. 3 Hours.
Human development from prenatal period to old age. Genetic and environmental determinants of behavior. Language, cognition, personality, social and emotional behavior, intelligence, and physical and sexual development. Applied areas include child rearing, childhood psychoses, and child abuse. This course fulfills the requirements in Ethics and Civil Responsibility (ECR).
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 213. Cross-Cultural Perspective on Child Development. 3 Hours.
Cultural differences in determinants of child development. Effects of culturally distinct approaches to child rearing and education on infant attachment, temperament, aggression, cognitive development, peer interaction, sex-role socialization, and moral reasoning.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 215. Research Literacy in Psychology. 3 Hours.
This course provides an overview of the scientific process and teaches students to read and evaluate scientific reports: popular media to primary literature; emphasizing the importance of being a good consumer of information. The course also teaches students to write scientifically, following accepted formats such as APA.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 216. Elementary Statistical Methods. 4 Hours.
Descriptive and inferential statistics with emphasis on behavioral science applications. Measures of central tendency and variability, frequency distributions, probability, t-test, correlation, analysis of variance, and regression. Use of computers in statistical analysis of psychological research data. Quantitative Literacy is a significant component of this course. Concurrent enrollment in PY216L required.
Prerequisites: MA 105 [Min Grade: C] or MA 110 [Min Grade: C] or MA 109 [Min Grade: C] or MA 125 [Min Grade: C] or MA 106 [Min Grade: C] or MA 107 [Min Grade: C] or MA 109 [Min Grade: C] or MA 225 [Min Grade: C]

PY 216L. Elementary Statistical Methods Laboratory. 0 Hours.
Statistical Methods Laboratory required with PY 216 lecture. Concurrent enrollment in PY 216 required.
Prerequisites: MA 105 [Min Grade: C] or MA 109 [Min Grade: C] or MA 110 [Min Grade: C] or MA 125 [Min Grade: C] or MA 106 [Min Grade: C] or MA 107 [Min Grade: C] or MA 109 [Min Grade: C] or MA 225 [Min Grade: C]

PY 218. Abnormal Psychology. 3 Hours.
Research-oriented study of different types of maladaptive behavior, including symptoms, development, classification, and treatment. Ethics and Civic Responsibility are significant components of this course.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 220. Contemporary Issues in Psychology. 3 Hours.
Issues of current interest in psychology.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 222. Honors Developmental Psychology. 3 Hours.
Advanced seminar in human development from prenatal period to old age. Genetic and environmental determinants of behavior. Language, cognition, personality, social and emotional behavior, intelligence, and physical and sexual development.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 226. Honors Elementary Statistical Methods. 4 Hours.
Advanced seminar in descriptive and inferential statistics with emphasis on behavioral science applications. Measures of central tendency and variability, frequency distributions, probability, t-test, correlation, analysis of variance, and regression. Use of computers in statistical analysis of psychological research data. Quantitative Literacy is a significant component of this course. Concurrent enrollment in PY216L required.

PY 228. Honors Abnormal Psychology. 3 Hours.
Advanced seminar in research-oriented study of different types of maladaptive behavior, including symptoms, development, classification, and treatment.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]
PY 236. Introduction to Research with Animal Models. 3 Hours.
This hands-on three-credit lab course is designed to instruct students on basic research methodology, animal handling techniques and compound administration. This course will allow students to gain firsthand experience with rodents (rats, mice) while learning the basics of injection, blood collection, breeding and animal care requirements. Each student will complete online animal care and use training as set forth by the UAB Institutional Animal Care and Use Committee (IACUC). Upon completion of this course students will have completed all online and Occupational Health and Safety (OH&S) requirements in order to enter research labs utilizing animals and be placed onto a research protocol. This course is designed to prepare students to start in a research lab with the knowledge and training to make them successful animal researchers.

Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 240. Psychology of Social Inequality. 3 Hours.
The gap in income between the rich and the poor has been growing steadily larger in the United States for over 30 years. Psychological science has produced some surprising insights about the causes and effects of this contentious trend. Among topics that will be tackled are how poverty affects decision making, wealth changes how people treat others, and racial discrimination affects responses to stress.

Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 253. Brain, Mind and Behavior. 3 Hours.
How brain functions during dreaming, visual perception, aggression, learning and memory, sex, and language. Left versus right hemisphere specializations, recovery after brain damage, and neurological basis of illnesses such as schizophrenia, autism, and Parkinson’s disease. Includes five hours of videos. Quantitative Literacy is a significant component of this course.

Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 301. Psychology of Trap Music. 3 Hours.
This course provides an extensive study into the Deep South origins of Trap Music and its evolution over time. We will explore how aspects of the built environment and other social determinants of health such as poverty, living conditions, and access to resources influence the music and the culture. As Trap Music grew in popularity, its influence on music in other parts of the country and worldwide were evident. Therefore, the course will also discuss the psychosocial and economic impact of the genre.

Py 302. History and Systems of Psychology. 3 Hours.
Historical origins and development of major approaches to psychology.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 303. Introduction to Cognitive Science. 3 Hours.
Introduction to the exciting new discipline of cognitive science, the interdisciplinary study of mind and intelligence. This course draws on a number of disciplines involved in unraveling the mysteries of the mind and intelligent life.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 305. Medical Psychology. 3 Hours.
Prerequisites: PY 101 [Min Grade: D] or PY 201 [Min Grade: D]

PY 312. Advanced Developmental Psychology. 3 Hours.
Current research and theory in childhood and adolescence with focus on perceptual/cognitive and social/emotional issues. Relationship between spoken language development and learning to read, linguistic development in special populations (e.g., hearing-impaired children), applications of memory research to children’s courtroom testimony, impact of preschool experience (e.g., Head Start) on academic achievement, and family and peer influence on cognitive and social development.

Prerequisites: PY 212 [Min Grade: C] or PY 222 [Min Grade: C]

PY 313. Language: Mind, Brain, and Society. 3 Hours.
Language is the greatest achievement of the human mind and brain. This course will provide an introductory survey of this amazing ability. Topics will include: speech perception, word comprehension, semantics, bilingualism, speech production, sentence processing, reading, and the social aspects of language. Throughout, the course will combine cognitive and behavioral perspectives with what is known about the brain systems that support language, and how those systems are impaired in developmental and neurological disorders. The course material will be conveyed through lectures, assigned readings, discussion of current debates, and hands-on “labs” in which students will collect data and write lab reports describing their results.

Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 315. Methods in Psychological Research. 4 Hours.
This course provides an overview of scientific methods used to investigate psychological phenomena, including correlational methods, quasi-experimental methods, and experimental methods. It considers issues related to problem definition, hypothesis formation, measurement, causal inference, validity, and reliability and includes a strong emphasis on writing, quantitative analysis and questions of ethics and civic responsibility. Writing, Quantitative Literacy and Ethics and Civic Responsibility are significant components of this course.

Prerequisites: PY 215 [Min Grade: C] and PY 216 [Min Grade: C] or (PY 214 [Min Grade: C] and PY 217 [Min Grade: C] and PY 215 [Min Grade: C])

PY 316. Research Methods in Psychology. 3 Hours.
Overview of specific research methods such as correlational, quasi-experimental, and experimental methods. Students will design and conduct research. As such it includes a strong emphasis on quantitative analysis and questions of ethics and civic responsibility. This course also provides practical knowledge of the scientific methodology such as problem definition, hypothesis formation, measurement, causal inference, validity, and reliability. Writing, Quantitative Literacy and Ethics and Civic Responsibility are significant components of this course.

Prerequisites: PY 215 [Min Grade: C] and PY 216 [Min Grade: C] or (PY 214 [Min Grade: C] and PY 215 [Min Grade: C])

PY 319. Psychopathology and Culture. 3 Hours.
Cultural differences with respect to types of behavior viewed as abnormal and how such behaviors are classified and treated.

Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 320. Contemporary Issues in Psychology. 3 Hours.
Issues of current interest in psychology.

Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]
PY 322. Applied Behavior Analysis. 3 Hours.
This course introduces students to the science and principles of applied behavior analysis (ABA) by providing students with an overview of behavioral principles and the behavior change procedures derived from these principles.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 325. Clinical Child Psychology. 3 Hours.
Diagnosis, prevention and treatment of psychological problems in children and adolescents. Interview techniques, behavioral and cognitive interventions, and community prevention programs. Developmental considerations emphasized.
Prerequisites: PY 218 [Min Grade: C] or PY 228 [Min Grade: C]

PY 326. Industrial/Organizational Psychology. 3 Hours.
Psychological methods applied to people at work. Selection, placement, performance appraisal, training, attitude measurement, work motivation, leadership, industrial safety, and human performance.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 330. Sport Psychology. 3 Hours.
Psychological factors in athletic performance. Psychological characteristics of successful athletes; anxiety, arousal, motivation, attention, concentration, attribution, cognition, and imagery.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 340. Behavioral MCAT Preparation. 3 Hours.
The course is directly linked to the foundational concepts in psychology, sociology, and biology covered by the MCAT. The foundational concepts will integrate with the scientific inquiry and reasoning skills necessary to critically understand the ways psychological, social, and biological factors influence perceptions and behavior; how biobehavioral elements relate to behavioral change and health; and how cultural and social differences influence well-being and health. This course will help students prepare for the Psychological, Social, and Biological Foundations of Behavior section of the Medical College Admission Test (MCAT).
Prerequisites: (PY 101 [Min Grade: C] or PY 201 [Min Grade: C])

PY 350. Personality and Intellectual Assessment. 3 Hours.
Measurement of personality and other psychological characteristics through psychological tests. Selection, administration, and interpretation of psychological tests.
Prerequisites: PY 214 [Min Grade: C] or PY 216 [Min Grade: C]

PY 353. Behavioral Neuroscience. 3 Hours.
The focus of the course is the neurobiological basis of behavior and emotion, and will cover molecular, cellular, and systems level mechanisms that mediate processes such as learning, motivation, sensation, speech, and emotional behavior. The included lab will utilize the collection and analysis of physiological data to reinforce core course concepts.
Prerequisites: PY 253 [Min Grade: C]

PY 354. Autism: Brain and Cognition. 3 Hours.
Autism is a disorder that affects every facet of human functioning. Its multidimensional manifestation is enigmatic to researchers as well as to affected families. This course will examine the scientific research that has illuminated the nature of autism, focusing on its cognitive and biological aspects. We will examine different perspectives of thinking and various biological underpinnings of brain function, to converge on the most recent scientific consensus on the biological and psychological characterization of autism. There will be a special focus on structural and functional brain imaging studies of autism.
Prerequisites: PY 253 [Min Grade: C]

PY 355. Cellular & Molecular Neuroscience. 3 Hours.
Introduction to the cellular and molecular biology, biochemistry, biophysics, genetics and function of the mammalian nervous system. This course will emphasize the development, anatomy, cellular and molecular biology and biochemistry of neurons and glial cells, and introduce electrical, biophysical and chemical signaling within and across neurons.
Prerequisites: PY 253 [Min Grade: C] and BY 122 [Min Grade: C] and CH 115 [Min Grade: C]

PY 356. From Systems to Cognitive Neuroscience. 3 Hours.
Introduction to the cellular and molecular biology, biochemistry, biophysics, genetics and function of the mammalian nervous system. This course will emphasize mechanisms of synaptic transmission, sensory systems, neuropharmacology, and synaptic plasticity; and introduce the molecular basis of diseases and disorders of the central and peripheral nervous systems.
Prerequisites: PY 355 [Min Grade: C] or NBL 355 [Min Grade: C]

PY 361. Psychology of Learning. 3 Hours.
Issues of learning in terms of current theoretical positions. Classical conditioning, instrumental conditioning, forgetting, role of motivation, and transfer of training.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 363. Cognitive Psychology. 3 Hours.
Human cognitive functioning. Selective attention, information processing, models of learning, memory, perception, and free and structured thought processes.
Prerequisites: PY 253 [Min Grade: C]

PY 370. Personality. 3 Hours.
Comparison of major theories of personality, including philosophy of human nature; structure, dynamics, and development of personality.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 372. Social Psychology. 3 Hours.
Major theories and research in social psychology. Social perception and attribution, behavior in interpersonal relationships, and group influences on individual behavior.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 375. Philosophy of Mind. 3 Hours.
Mind; its nature, forms, and functions. Consciousness, self-consciousness, action, belief, desire, rationality, personal identity; problems such as mind-body, psychological explanation, and freedom of will. Prerequisite: one previous PHL course or permission of instructor.

PY 376. Psychology and Law. 3 Hours.
Interaction between theories and applications of psychology and practice of civil and criminal law. Insanity, malpractice, competency, civil commitment, violence, jury selection, and expert-witness testimony.
Prerequisites: PY 101 [Min Grade: C] or PY 201 [Min Grade: C]

PY 380. The Sensory and Perceptual Brain. 3 Hours.
Contemporary theory and empirical research in sensory coding of perceptual information. Sensory transduction, physiology and anatomy of sensory systems, and psychophysical measurement techniques. Visual perception, hearing and speech, smell, and taste.
Prerequisites: PY 253 [Min Grade: C]
PY 390. Animal Behavior. 3 Hours.
The foundation of animal behavior as it relates to the study of psychobiology and evolutionary psychology. Reproductive and survival strategies, communication, learning, cognition, orientation navigation/ homing, behavioral genetics, and evolution.
Prerequisites: PY 101 [Min Grade: C] (Can be taken Concurrently) or PY 201 [Min Grade: C]

PY 396. Teaching Practicum in Psychology. 0-6 Hours.
Teaching experience in psychology courses, supervised by a faculty member. Student must have previously taken the course for which the student will work within. Permission of Director of Undergraduate Studies required. Pass/Fail.

PY 397. Community-Based Practicum in Psychology. 1-6 Hour.
Community work in various supervised settings such as Crisis Center, Department of Human Resources, etc. Permission of Director of Undergraduate Studies required. (Pass/Fail) Ethics and Civic Responsibility are significant components of this course.

PY 398. Research Practicum in Psychology. 0-7 Hours.
Project or research activity supervised by faculty. Cannot be taken Pass/Fail. Permission of Director of Undergraduate Studies required.

PY 399. Psychology Honors Seminar. 1 Hour.
Focus on preparation for graduate/professional school and conducting psychological research, including presentation of research and discussion of relevant issues in statistical analysis, research methods, and ethics. Prerequisites: Admission into the Psychology Honors Program and Elementary Statistical Methods (may be concurrent enrollment).
Prerequisites: PY 216 [Min Grade: C] (Can be taken Concurrently)

PY 401. Neuroscience Seminar. 1 Hour.
Neuroscience faculty from the School of Medicine and Psychology present current research and discuss strategies for career development in medicine and research. Group discussion follows research presentation.
Prerequisites: PY 253 [Min Grade: C]

PY 405. Biofeedback, Meditation, and Self-Regulation. 3 Hours.
History and current applications of biofeedback, meditation, and relaxation techniques.
Prerequisites: PY 215 [Min Grade: C]

PY 410. Psychology of Marriage. 3 Hours.
The goal of this course is for students to gain an understanding of multiple principles related to marriage and families. Students will gain an understanding of theoretical paradigms and major principles related to marriage and families. Students will analyze psychological theories of marital strengths and weaknesses and components of pre-marriage, marriage, divorce, and remarriage. Topics will include the single life, mate selection, positives/negatives of marriage, and divorce.
Prerequisites: PY 215 [Min Grade: C]

PY 411. Cognitive Development. 3 Hours.
Development of and changes in memory, perception, learning, and thinking throughout the lifespan.
Prerequisites: (PY 212 [Min Grade: C] or PY 222 [Min Grade: C]) and (PY 316 [Min Grade: C] or PY 315 [Min Grade: C])

PY 412. Social Development. 3 Hours.
Contemporary theoretical models and empirical research in social development. Attachment formation in infancy, parent-child and family interactions, peer relationships, moral and pro-social development, aggression, and sex role development.
Prerequisites: (PY 212 [Min Grade: C] or PY 222 [Min Grade: C]) and (PY 316 [Min Grade: C] or PY 315 [Min Grade: C])

PY 413. Psychology of the African American Child. 3 Hours.
Psychological development of African American children from birth through adolescence. Prenatal influences on growth and development, cognitive development, practices of African American families, Black English and language development, psychological testing, self-concept, racial identification, and motivation and academic achievement.
Prerequisites: (PY 212 [Min Grade: C] or PY 222 [Min Grade: C]) and (PY 316 [Min Grade: C] or PY 315 [Min Grade: C])

PY 415. Intellectual and Developmental Disabilities. 3 Hours.
History, causes, treatment/education, behavioral interventions, and family issues related to Intellectual and Developmental Disabilities and other developmental disabilities. Psychologist as member of interdisciplinary treatment team.
Prerequisites: (PY 212 [Min Grade: C] or PY 222 [Min Grade: C])

PY 417. Psychology of Gender. 3 Hours.
The purpose of this course is to provide an overview of research and theory on gender in psychology. Themes will include the myths and stereotypes associated with men and women in our society, the social and psychological gender differences that have been identified in research, and the evidence and theoretical arguments concerning the origin of these differences. Students will gain an awareness of the hidden and obvious gender biases in the study of human behavior and an appreciation of the complexity of the research on gender issues; clarify the nature and development of gender differences and gender roles, critically think about and evaluate gender in the media; develop intellectual tolerance and exercising respect for others’ viewpoints; and develop self-understanding and empowerment with the understanding that one does not need to be constrained by traditional gender roles and stereotypes.
Prerequisites: PY 215 [Min Grade: C]

PY 418. Psychotherapy and Behavior Change. 3 Hours.
Different therapeutic approaches and issues relating to their effectiveness. Principles of behavior modification.
Prerequisites: (PY 218 [Min Grade: C] or PY 228 [Min Grade: C]) and (PY 316 [Min Grade: C] or PY 315 [Min Grade: C])

PY 420. Special Topics in Psychology. 3 Hours.
Issues of current interest in psychology.
Prerequisites: PY 215 [Min Grade: C]

PY 422. Infant Development. 3 Hours.
The goal of the course is to review contemporary theory, research, and methods relevant to understanding infant development. The course focuses on both normative and atypical development because an understanding of one enriches an understanding of the other. Individual differences, sociocultural diversity, and a historical perspective on the study of all these themes will be emphasized throughout. Topics will include: Genetic and environmental influences on development & temperament; Neurodevelopment & Risk, Resilience, & Intervention; Sensory development; Cognitive development; Social cognitive development, joint attention; Language development; Emotion & emotion regulation; Social Interaction; Precursors to attachment.
Prerequisites: PY 212 [Min Grade: C] or PY 222 [Min Grade: C]

PY 423. Abnormal Child Development. 3 Hours.
Current research and theories related to aberrations of normal development processes, including autism, childhood schizophrenia, and other disorders of childhood.
Prerequisites: (PY 218 [Min Grade: C] or PY 228 [Min Grade: C])
PY 424. Psychology of Race and Ethnic Relations. 3 Hours.
This course is intended to construct and advance students' knowledge
employed in race and ethnicity as they relate to human behavior in
various social contexts. Students will gain knowledge of race and ethnic
relations in the United States from a psycho-historical perspective and
how those changes have affected our current view of race relations.
Topics will include social psychological principles such as forms of racism
and discrimination, attitude formation, psychological response to racism,
and racial identity development.
Prerequisites: PY 215 [Min Grade: C]

PY 425. Psychology of Aging. 3 Hours.
A comprehensive overview of psychological aspects of aging. Topics will
include age-related changes in cognitive function, behavior, sensation/
perception, health, and personality, as well as dementia and other forms
of psychopathology. (Also offered under Gerontology.).
Prerequisites: (PY 212 [Min Grade: C] or PY 222 [Min Grade: C])

PY 426. Creative Arts Therapies. 3 Hours.
The goals of the course are to provide an introduction to and overview
of the educational, ethical and credentialing requirements for each of the
creative arts therapies. The course includes lecture, discussion, research,
and presentation requirements.

PY 431. The Dynamics of Pain. 3 Hours.
Physiology, pharmacology, and anatomy of acute and chronic pain.
How medical treatments relieve pain. Stress-induced analgesia,
transcutaneous electrical stimulation, acupuncture, inflammation, and
psychological approaches to treatment of pain.
Prerequisites: (PY 253 [Min Grade: C] or NBL 230 [Min Grade: C])

PY 433. Diseases of the Nervous System. 3 Hours.
Molecular mechanisms and treatments for neurological, psychiatric,
and injury based disorders and diseases of the nervous system. Topics
include neurodevelopmental disorders (including intellectual disability
and autism spectrum disorders), neurological disorders (including
neurodegenerative and demyelinating disease), neuropsychiatric
disorders (including depression disorders and schizophrenia), and injury
to the nervous system (including stroke and traumatic brain and spinal
cord injury).
Prerequisites: PY 353 [Min Grade: B] or PY 355 [Min Grade: C] or
PY 356 [Min Grade: C]

PY 435. Motivation and Emotion. 3 Hours.
The psychobiology of homeostatic human drives thirst, eating, sexual
motivation, sleep, aggression, emotions, and reward. Role of genes,
central and peripheral nervous system, hormones, and interaction
between these and environment. Includes hallmark experiments and
abnormal conditions of these motivated behaviors including
obesity, eating disorders, sleep/wake disorders, anxiety, depression,
psychopathy, sexual deviance, and addiction.
Prerequisites: PY 253 [Min Grade: C] or NBL 230 [Min Grade: C]

PY 436. Statistical Programming. 3 Hours.
This course integrates an introduction to the most commonly-used
statistical methods in psychology and neuroscience with an introduction
to statistical programming. The statistical programming material includes
basic programming concepts, and focuses on specific needs of data
management, data visualization, and reproducible data analysis. The
statistical methods include descriptive and inferential statistics, organized
around the generalized linear modeling framework.
Prerequisites: PY 216 [Min Grade: C] or PY 220 [Min Grade: C]

PY 441. Principle Cell Neuroscience Module I. 2 Hours.
Module I: Molecules, genes and cell biology of the nervous system. The
first module will cover the biochemistry, molecular and cellular biology
of neurons and glial cells. Topics on biochemistry and molecular biology
will include protein, lipid, carbohydrate and nucleic acid biosynthesis
and structure. Next, the cell biology of neurons and glial cells will be
introduced, including protein and membrane transport pathways, energy
metabolism, protein turnover and gene regulation. Introductory basic
concepts of nervous system development will be covered, including the
differentiation of neurons and glial cells and the anatomical plan of the
brain and spinal cord. This developmental neurobiology concepts are
intended to be an introduction to a later graduate-level course taught in
the second year (Developmental Neurobiology, Keyser).
Prerequisites: PY 253 [Min Grade: D] and PY 315 [Min Grade: D]

PY 442. Principle Cell Neuroscience Module II. 2 Hours.
Module II: Membrane biophysics and synaptic transmission The second
module will introduce basic concepts of membrane biophysics, as well
as the electrical and chemical signaling within and across neurons.
Topics will include the resting membrane potential, passive and active
propagation of electrical signals, active electrogenic properties of
dendrites and axons, structure and function of voltage-gated and ligand-
gated ion channels, and mechanisms of action potential conduction. The
molecular and cellular mechanisms of synaptic transmission, the transfer
of information between neurons, will then be covered in detail. Topics will
include mechanisms of synaptic vesicle synthesis and their filling with
neurotransmitters, their storage, exocytosis, endocytosis and recycling,
the role of neurotransmitter transporters in clearance and termination
of neurotransmitter actions, postsynaptic receptors and signal transduction
pathways, as well as the dynamic changes in synaptic structure and
function. Fundamental basic concepts of neurotransmitter receptor
pharmacology will also be presented as the bases for understanding
neuropharmacology, the effect of drugs on nerve cell function.
Prerequisites: PY 253 [Min Grade: D] and PY 315 [Min Grade: D]

PY 443. Principle Cell Neuroscience Module III. 2 Hours.
Module III: Synaptic integration, synaptic plasticity and basic neuronal
circuitry The third module will focus on the modulation and integration of
all the synaptic inputs arriving on neurons. Topics will include temporal
and spatial summation of synaptic inputs, metabotropic and neurotrophic
factor receptors and their signal transduction mechanisms through
second-messenger systems, as well as long-and short-term synaptic
plasticity, including LTP and LTD as current cellular models of learning
and memory. The neurochemical bases of neurological and psychiatric
disorders will also be covered. Finally, sensory transduction and motor
control systems will be covered as an introduction to a later graduate-
level course taught in the second year (Integrative Neuroscience,
Gamlin).
Prerequisites: PY 253 [Min Grade: D] and PY 315 [Min Grade: D]

PY 444. Principle Cell Neuroscience Module IV. 1 Hour.
Module IV: Discussion of classical and contemporary research articles
This class will use a journal club format to dissect and discuss primary
research literature on topics that parallel the material taught in lectures.
Research articles will include groundbreaking seminal papers ("classical")
and modern, state-of-the-art experimental approaches in Neuroscience
("contemporary").
PY 453. Advanced Behavioral Neuroscience. 4 Hours.
Neural systems which control behavior will be studied, incorporating knowledge gained from neurobiological and psychological research. Topics will include synaptic communication, sensation and perception, movement, genetic influences on behavior, motivation, emotions, psychopathology, brain plasticity, and an extended module on learning. The associated lab will utilize the collection and analysis of physiological data to reinforce core course concepts.
Prerequisites: PY 353 [Min Grade: D] or PY 355 [Min Grade: D] or PY 363 [Min Grade: D] or NBL 355 [Min Grade: D]

PY 453L. Advanced Behavioral Neuroscience Laboratory. 0 Hours.
Advanced Behavioral Neuroscience Laboratory required with PY 453 lecture. Concurrent enrollment in PY 453 required.

PY 454. Advanced Topics in Behavioral Neuroscience. 3 Hours.
Advanced Topics in Behavioral Neuroscience will cover methods and discoveries in the neuroscience of behavior, such as brain imaging, human and animal learning, perception, neurophysiology, neuropharmacology and psychiatric disorders.
Prerequisites: PY 453 [Min Grade: C]

PY 455. Psychology of Eating Disorders and Obesity. 3 Hours.
The history, epidemiology, genetic, environmental, and behavioral correlates and prevention and treatment strategies of eating disorders and obesity. Includes mechanisms of normal feeding and weight control and general research methods used to understand psychiatric disorders.
Prerequisites: PY 253 [Min Grade: C] and (PY 315 [Min Grade: C] or PY 316 [Min Grade: C]) and (PY 352 [Min Grade: C] or PY 355 [Min Grade: D])

PY 457. Neural Measurement Lab. 3 Hours.
This course is about how to obtain nervous system data. It will include basic and applied research techniques, including data collection, measurement, and analysis methodology. Students will learn basic instrumentation for the measurement of autonomic and central nervous system responses related to psychological, psychophysiological, and emotional tasks.
Prerequisites: PY 253 [Min Grade: B] or PY 353 [Min Grade: C]

PY 460. Advanced Neuroscience: From Molecules to Mind. 3 Hours.
Builds on foundation set in PY 355. Provides in-depth understanding of nervous system functions at molecular, cellular, biophysical, and circuit level. Includes developmental, cognitive, systems and clinical neuroscience.
Prerequisites: PY 355 [Min Grade: C]

PY 463. Cognitive Neuroscience. 3 Hours.
Interdisciplinary study of higher-order cognitive functions in humans. Data from functional brain imaging, neurology, neuroanatomy, and neurophysiology used in study of human perception, language, learning, and memory.
Prerequisites: PY 253 [Min Grade: C] or PY 353 [Min Grade: C]

PY 464. Honors Cognitive Neuroscience. 3 Hours.
Interdisciplinary study of higher-order cognitive functions in humans. Data from functional brain imaging, neurology, neuroanatomy, and neurophysiology used in study of human perception, language, learning, and memory.
Prerequisites: PY 353 [Min Grade: C] or PY 355 [Min Grade: C] or PY 363 [Min Grade: C] or NBL 355 [Min Grade: C]

PY 465. Neural Analysis Lab. 3 Hours.
This course extends the analysis methodology from the PY 457 course and includes an advanced focus on the processes associated with data examination (probability and basic statistics), and how to model data (Simulink and Matlab).
Prerequisites: PY 457 [Min Grade: C]

PY 466. Cognitive Neuroimaging. 3 Hours.
This course will focus on examining the neural bases of higher cognitive and social functions. We will discuss the basics of functional MRI and will study scientific papers in neuroimaging to arrive at neural characterization of cognitive functions, such as: executive functions, emotion, intentionality, language comprehension, and social cognition. This course will provide students a unique opportunity to learn about the potential of neuroimaging in understanding cognition. It will also help students refine their research interests and possibly choose the field of neuroscience to pursue further studies.
Prerequisites: PY 315 [Min Grade: C] or (PY 316 [Min Grade: C] and PY 253 [Min Grade: C])

PY 470. Introduction to Neurobiology. 6 Hours.
Students will be introduced to the fundamental basis of neuronal communication and the neurobiological bases of behavior. They will use laboratory exercises to learn to form hypotheses and to collect and analyze experimental data to test their hypothesis. Topics will include invertebrate and vertebrate neuroanatomy, neurons and glia, resting potentials, action potentials, synaptic transmission, neurotransmitters and receptors, sensory transduction, and sensorimotor integration. This class is taught at the Dauphin Island Sea Lab.

PY 472. Social Psychophysiology. 3 Hours.
Current research on the effects of the social world on hormonal responses (cortisol, testosterone etc.). Several research articles will be discussed every week in a seminar format.
Prerequisites: PY 215 [Min Grade: C]

PY 474. Positive Psychology. 3 Hours.
Introduction to “positive psychology,” which is the application of psychological science to questions such as what makes people happy, how do you foster hope, and is being curious an adaptive trait.
Prerequisites: PY 316 [Min Grade: C]

PY 484. Psychology of Driving. 3 Hours.
Overview of relevant theories of driver behavior and associated psychological principles such as attention and cognition. Students will design and conduct research related to human behavior in the driving context. Strong emphasis on quantitative analysis and experimental design. Writing, Quantitative Literacy, and Team-Based learning are significant components of this course.
Prerequisites: PY 316 [Min Grade: C]

PY 488. Pediatric Psychology. 3 Hours.
Behavioral influence on health and illness; impact of health problems and illness on behavior and development of children and adolescents; family issues related to these interactions.
Prerequisites: (PY 212 [Min Grade: C] or PY 222 [Min Grade: C])
PY 490. Psychology Capstone/SL. 3 Hours.
Capstone emphasizes the synthesis of knowledge and research skills expected of the undergraduate Psychology major. Students are guided in conducting research within a specific content area. Use of computers in statistical analysis of psychological research data. Also includes class readings and discussions on ethical issues. Observation or community service in selected social service agencies is an integral part of the course. Ethics and Civic Responsibility, Writing and Quantitative Literacy are significant components of this course. This is a designated service-learning course integrating academic learning, civic learning and meaningful service to the community.
Prerequisites: PY 315 [Min Grade: C] or PY 316 [Min Grade: C]

PY 499. Psychology Honors Thesis. 2 Hours.
The Capstone course represents the culmination of the undergraduate major in Psychology for participants in the Psychology Honors Program. Students complete their honors thesis with guidance from their research mentor and the honors program Director, and defend their thesis in the Psychology Honors Seminar, and also present their research at a conference or in another public venue. Participation in the Honors Program in Psychology and completion of 3 semesters of PY 399 required, one of which may be concurrently enrolled.
Prerequisites: PY 399 [Min Grade: C](Can be taken Concurrently)