

BEHAVIORAL AND COGNITIVE NEUROSCIENCE

Psychology is the science of human and animal behavior. Psychology majors receive a broad science-based liberal arts education. As a result, those with a Bachelor of Science in Psychology are widely sought in business, education, and mental health fields. For a professional career in Psychology, a graduate degree is needed.

About this Program

- **College:** Liberal Arts and Sciences (<http://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/>)
- **Degree:** Bachelor of Science
- **Specializations:** General Psychology (http://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/PSY_BS_BS01/PSY_BS/) | Behavior Analysis (http://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/PSY_BS_BS01/PSY_BS02/) | Behavioral and Cognitive Neuroscience (p. 1)
- **Credits for Degree:** 120
- **Contact:** Email (psych-advising@ufl.edu?Subject=Psychology%20Major)
- **More Info**

To graduate with this major, students must complete all university, college, and major requirements.

Department Information

The Department of Psychology is dedicated to the pursuit of excellence in the generation of psychological science and to its application and dissemination. The department is committed to creating and sustaining a diverse, inclusive, and nondiscriminatory environment.

Website (<https://psych.ufl.edu/>)

CONTACT

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Map (<http://campusmap.ufl.edu/#/index/0749>)

Curriculum

- Psychology
- Psychology UF Online

The Psychology curriculum provides a strong background to pursue careers in Psychology or to prepare students for entry into advanced professional schools such as law or medicine. The curriculum emphasizes the principles and applications of psychological knowledge, both as a natural science and as a social science.

Behavioral and Cognitive Neuroscience focuses more specifically on natural science-oriented psychology courses and allows students to take limited approved non-psychology courses relevant to contemporary neuroscience. This specialization also requires more math and biology courses than general psychology.

Requirements for the Major

Students in the Psychology Behavioral and Cognitive Neuroscience (BCN) specialization are required to complete 36 credits of coursework with 16 credits of related coursework in biological science, mathematics, and statistics for a total of 52 credits. Courses used toward the major must be earned with minimum grades of C. At least 22 credits must be taken in psychology. At least 18 of the 36 credits must be taken at the University of Florida.

The course listing below does not represent an ordered sequence. View more detailed Behavioral and Cognitive Neuroscience Model Semester Plan or curriculum course scheduling information on the department's website.

Code	Title	Credits
Psychology Behavioral and Cognitive Neuroscience Major Core Courses		
Introductory level		
PSY 2012	General Psychology	3
Laboratory course		
PSY 3213L	Laboratory Methods in Psychology	3
Foundation core		
Each foundation core course is an introduction to the substantive areas of behavioral and cognitive neuroscience.		6
<i>Biological Bases of Neuroscience</i>		
PSB 3340	Behavioral Neuroscience	

<i>Learning and Cognition</i>	
EXP 3604	Cognitive Psychology
Advanced BCN Laboratory	
Select one ¹	4
EAB 4714C	Laboratory in Applied Behavior Analysis
EXP 4174C	Laboratory in Sensory Processes
PSB 4343C	Laboratory in Cognitive Neuroscience
PSY 4905	Individual Work
Psychology Behavioral and Cognitive Neuroscience Major Electives	
PSB or EXP Prefixed Psychology Electives at the 4000-level	
4000-level psychology courses with a PSB or EXP prefix or approval of the undergraduate coordinator. These courses must be taken in addition to the required laboratory course and do not include individual work courses. ³	
Additional BCN electives	
Psychology courses or approved neuroscience-relevant courses outside psychology to meet the 36- credit minimum requirement. 3 credits may be at the 2000 level or higher. The remaining 11 or more credits must be at the 3000/4000 level. PSB 3002 is not accepted toward the Behavioral and Cognitive Neuroscience specialization. ^{2,3}	
Total Credits	
36	

- ¹ Non-Psychology courses taken at UF can be substituted for the BCN Advance Lab Requirements. For a complete list of 4-credit lab-based courses that can be used as substitutes refer to the department's website. Students who enroll in substitute courses will need to contact Psychology Advising at psych-advising@ufl.edu (<https://psych.ufl.edu/undergrad/degree-requirements/behavioral-and-cognitive-neuroscience/>) for degree audit adjustments.
- ² Refer to the department's website for a list of courses that will count towards this requirement. Students who enroll in non-Psychology courses may need to contact Psychology Advising at psych-advising@ufl.edu (<https://psych.ufl.edu/undergrad/degree-requirements/behavioral-and-cognitive-neuroscience/>) for degree audit adjustments.
- ³ Students interested in completing an honors thesis should talk to an advisor early in their academic careers to ensure they leave room in their required 36 credits of Psychology to enroll in the appropriate honors course(s). (<https://psych.ufl.edu/undergrad/undergraduate-advising-in-psychology/research-internship-teaching-experiences/psychology-senior-thesis/>)

Students who wish to transfer courses in psychology toward the major *must* see an advisor in the department for approval.

Related Coursework

Code	Title	Credits
Statistics		
STA 2023	Introduction to Statistics 1	3
STA 3024	Introduction to Statistics 2	3
Mathematics		
MAC 2311	Analytic Geometry and Calculus 1	4
Biological Science		
BSC 2010	Integrated Principles of Biology 1	3
BSC 2011	Integrated Principles of Biology 2	3
Total Credits		16

- ¹ STA 2023 is a prerequisite for some 4000-level psychology and laboratory courses.
- ² STA 3024 must be taken before or concurrently with any specialized psychology laboratory, and it also counts toward the CLAS requirement of 3000-level electives not in the major.

Most of the foundation-level courses and the laboratory methods course are offered each semester. Special topic and other advanced courses are offered less frequently. Fewer courses are offered in Summer.

Recommended Coursework

In addition to regularly scheduled courses, the department offers six Individual Work (IW) courses. Students can earn up to a **maximum combined total of nine credits for IW coursework in their undergraduate careers.**

Code	Title	Credits
Research		
PCO 4911	Undergraduate Research in Psychology of Health Disparities	3
PSY 4911	Undergraduate Research in Psychology	3
PSY 4905	Individual Work	1-3

PSY 4970	Senior Thesis	1-3
Teaching		
PSY 4940	Introduction to Teaching in Psychology	3
Community Work		
PSY 4949	Internship in Psychology	1-3

In each case, a psychology faculty member must supervise the student's work. In cases where the student is working with (being supervised by) a faculty member or professional that is not in Department of Psychology, then a psychology faculty member must sign on as a sponsor.

More Info (<https://psych.ufl.edu/undergrad/research-internship-teaching-experiences/>)

Research

Research in Psychology means asking questions about behavior, designing and running experiments and collecting data regarding those questions, analyzing and interpreting the results, and communicating these results to colleagues. Developing research skills is encouraged, especially if students anticipate graduate school in Psychology or in other professional areas.

SONA: Research Participation Requirement

One of the Psychology Department's goals is to familiarize students with the research process in psychology. Toward meeting this goal, students enrolled in PSY 2012, CLP 2001, and any 3000 level Psychology course must participate in experimental research studies (Option 1) or critically analyze scientific research articles (Option 2). This is done through a system called SONA. Specific requirements are posted in the course CANVAS and syllabus.

Advising Note

The SONA requirement is an important factor to consider when planning each semester. We recommend that you take no more than two psychology courses requiring research participation each semester.

Critical Tracking

Critical Tracking records each student's progress in courses that are required for progress toward each major. Please note the critical-tracking requirements below on a per-semester basis.

For degree requirements outside of the major, refer to CLAS Degree Requirements: Structure of a CLAS Degree.

Equivalent critical-tracking courses as determined by the State of Florida Common Course Prerequisites (<https://cpm.flvc.org/advance-search/>) may be used for transfer students.

These critical-tracking courses are required: BSC 2010, MAC 2311, PSY 2012, PSY 3213L, PSB 3340, and STA 2023.

Although not required in the first five semesters, additional psychology courses taken in semesters 1-5 count toward the critical-tracking GPA for the major.

Semester 1

- Complete MAC 1147 or MAC 2311
- 2.4 UF GPA required

Semester 2

- Complete MAC 2311
- Complete PSY 2012
- 2.6 UF GPA required

Semester 3

- Complete 2 of the following critical-tracking courses with a 2.6 critical-tracking GPA: BSC 2010, PSB 3340, or PSY 3213L
Students should take PSY 3213L in semester 3 or 4 before taking any additional 3000-level or above psychology courses.
- 2.7 UF GPA required

Semester 4

- Complete 1 tracking course from BSC 2010, PSB 3340, PSY 3213L or STA 2023 with a 2.75 critical-tracking GPA
- 2.8 UF GPA required

Semester 5

- Complete the final tracking course (BSC 2010, PSB 3340, PSY 3213L or STA 2023) with a 2.75 critical-tracking GPA. Additional psychology courses taken in semesters 1-5 are included in the critical-tracking GPA.
- 2.8 UF GPA required

Semester 6

- Complete 2 of the remaining PSY 3XXX/4XXX required courses
- Complete STA 3024

Semester 7

- Complete 2 of the remaining PSY 3XXX/4XXX required courses
- Complete neuroscience lab: PSB 4343C, EAB 4714C, EXP 4174C

Semester 8

- Complete all remaining PSY 3XXX/4XXX required courses and/or neuroscience relevant courses.

Model Semester Plan

Students are expected to complete the Writing, Civic Literacy, summer enrollment, and Quest requirements while in the process of taking the courses below. Students are also expected to complete the general education international (GE-N) requirements concurrently with another general education requirement (typically, GE-C, H, or S) as part of the CLAS Basic Distribution requirements. One of the two general education mathematics courses must be a pure math course.

College of Liberal Arts and Sciences allows students additional flexibility in its Distribution Requirements. Students may count a maximum of 6 credits TOTAL from the CLAS Distribution course lists towards Humanities, Social and Behavioral Sciences, or Biological and Physical Sciences, with no more than 3 credits of Humanities, 3 credits of Social and Behavioral Sciences, or 6 credits of Biological or Physical Sciences.

The full list of major-specific requirements for this major can be found on the Overview tab. College of Liberal Arts and Sciences degree requirements can be found on the College's degree requirements page (<https://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/#degreerequirementstext>).

STA 3024 and approved 3000 level or above neuroscience-relevant courses outside the psychology department may count towards the 3000 level or above electives outside of the major.

To remain on track, students must complete the appropriate critical-tracking courses, which appear in bold. These courses must be completed by the terms as listed above in the Critical Tracking criteria.

This semester plan represents an example of progression through the major. Actual courses and course order may be different depending on the student's academic record and course scheduling availability. Prerequisites still apply.

Course	Title	Credits
Semester One		
PSY 2012	General Psychology (Critical Tracking ; State Core Gen Ed Social and Behavioral Sciences)	3
Quest 1		3
Gen Ed Physical Sciences		3
CLAS Foreign Language Proficiency Requirement ¹		4-5
Credits		13-14
Semester Two		
MAC 2311	Analytic Geometry and Calculus 1 (*Critical Tracking; State Core Gen Ed Mathematics)	4
State Core Gen Ed Composition (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext); Writing Requirement		3
State Core Gen Ed Humanities (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext)		3
Gen Ed Physical Sciences		3
CLAS Foreign Language Proficiency Requirement ¹		3-5
Credits		16-18
Semester Three		
BSC 2010	Integrated Principles of Biology 1 (Critical Tracking ; State Core Gen Ed Biological Sciences)	3
PSY 3213L	Laboratory Methods in Psychology (Critical Tracking ; Natural Science Laboratory) ²	3
Gen Ed Humanities		3
Elective (or CLAS Foreign Language Proficiency Requirement if 4-3-3 language option) ¹		6
Credits		15

Semester Four

STA 2023	Introduction to Statistics 1 (Critical Tracking ; Gen Ed Mathematics)	3
Quest 2 (Gen Ed Biological Science, Physical Science, or Social and Behavioral Science)		3
PSB 3340	Behavioral Neuroscience (Critical Tracking)	3
BSC 2011	Integrated Principles of Biology 2 (Gen Ed Biological Sciences)	3
Quest 2		
Gen Ed Social and Behavioral Sciences		3
	Credits	15

Semester Five

STA 3024	Introduction to Statistics 2 (Critical Tracking)	3
EXP 3604	Cognitive Psychology	3
Select one:		3
Psychology Elective (3000-level or higher), or		
Approved neuroscience-relevant course outside psychology		
Gen Ed Humanities		3
Gen Ed Social and Behavioral Science		3
	Credits	15

Semester Six

Psychology course (Critical Tracking ; PSB or EXP prefix; 4000 level)		3
Select one:		3
Approved neuroscience-relevant course outside psychology, or		
Psychology Elective		
Gen Ed Composition; Writing Requirement		3
Electives (3000 level or above, not in major)		6
	Credits	15

Semester Seven

Select one specialized psychology laboratory elective:		4
EXP 4174C	Laboratory in Sensory Processes (Critical Tracking)	
PSB 4343C	Laboratory in Cognitive Neuroscience (Critical Tracking)	
PSY 4905	Individual Work (Critical Tracking)	
Psychology course (Critical Tracking ; PSB or EXP prefix; 4000 level)		3
Electives (3000 level or above, not in major)		6
Elective		3
	Credits	16

Semester Eight

Psychology Elective (Critical Tracking ; 3000 level or above)		3
Select 5 credits:		5
Approved neuroscience-relevant courses outside psychology, or		
Psychology Electives (3000 level or higher)		
Elective (3000 level or above, not in major)		3
Elective		4
	Credits	15
	Total Credits	120

¹ CLAS Foreign Language Proficiency Requirement (<https://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/#degreerequirementstext>)

Academic Learning Compact

The Bachelor of Science in Psychology enables students to achieve a high level of proficiency in the science of psychology, including the core natural and social science areas of psychology. Laboratory courses emphasize students' understanding of the design, analysis, and critical interpretation of psychological research. Students will also refine their core knowledge and understanding of psychological research with advanced coursework in statistics, biology, and mathematics.

Before Graduating Students Must

- Demonstrate satisfactory (minimum grade of C) performance on exams, papers, and other coursework for six credits in core psychology natural sciences (course prefixes CBH, EAB, EXP and PSB), six credits of core psychology social sciences (course prefixes CLP, DEP, SOP and PPE) and three or four credits of psychological research methodology, design, and analysis, as graded by department rubric.
- Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to

Student Learning Outcomes | SLOs

Content

1. Critical knowledge of basic and applied aspects of core natural science areas within psychology as well as core social science areas within psychology.
2. Knowledge of the design, analysis, and interpretation of psychological research.

Critical Thinking

3. Review, interpret, and analyze the literature in psychological science.

Communication

4. Clearly and effectively present ideas in speech and in writing that contribute to the dissemination of advances in research in psychological science.

Curriculum Map

All courses available to students are listed in the table; however, students select six credits in core psychology natural sciences, six credits of core psychology social sciences and three to four credits in psychological research methodology, design, and analysis.

I = Introduced; R = Reinforced; A = Assessed

Courses	SLO 1	SLO 2	SLO 3	SLO 4
DEP 4115	R			
DEP 4163	R			
DEP 4305	R			
DEP 4464	R			
DEP 4930	R			
EAB 4184	R			
EAB 4704	R			
EXP 4504	R			
PCO 3320	R			
PCO 4104	R			
PCO 4272	R			
PCO 4930	R			
PSB 3842	R			
PSB 4240	R			
PSB 4342	R			
PSB 4434	R			
PSB 4504	R			
PSB 4654	R			
PSB 4810	R			
PSB 4823	R			
PSB 4934	R			
PSY 3220		R	R	R
PSY 3443	R			
PSY 4604	R	R	R	
PSY 4930	R			
SOP 3842	R			
SOP 4444	R			
SOP 4504	R			
SOP 4704	R			
STA 3024		I, R		
Natural Sciences				
CBH 3003	I, R, A			
EAB 3002	I, R, A			
EAB 3764	I, R, A			

EXP 3104	I, R, A			
EXP 3604	I, R, A			
PSB 3002	I, R, A			
PSB 3340	I, R, A			
Social Sciences				
CLP 3144	I, R, A			
DEP 3053	I, R, A			
PPE 3003	I, R, A			
SOP 3004	I, R, A			
Laboratories				
DEP 4704C	I, R, A	I, R, A	I, R, A	I, R, A
EAB 4022C	I, R, A	I, R, A	I, R, A	I, R, A
EAB 4714C	I, R, A	I, R, A	I, R, A	I, R, A
EXP 4174C	I, R, A	I, R, A	I, R, A	I, R, A
EXP 4934C	I, R, A	I, R, A	I, R, A	I, R, A
PPE 4324C	I, R, A	I, R, A	I, R, A	I, R, A
PSY 3213L	I, R, A	I, R, A	I, R, A	I, R, A
SOP 4214C	I, R, A	I, R, A	I, R, A	I, R, A
Individual work in research, teaching, or community service				
PSY 3912		R	R	R
PSY 4905	R			
PSY 4940	R			
PSY 4949	R			
PSY 4970		R	R	R

Assessment Types

- Exams
- Papers