BACHELOR OF SCIENCE WITH A MAJOR IN NEUROSCIENCE

GW’s Neuroscience program teaches the core concepts and methods involved in modern neuroscience. Through our program, you will be provided with a rigorous, interdisciplinary education in molecular, cellular, and cognitive neuroscience, resulting in a comprehensive understanding of the mechanisms and circuitry in the brain that drive behavioral outputs. Critically evaluating and applying the core experimental methods used in molecular neuroscience and neurobiology, you will become fluent in the core concepts, methods, and current literature involved with modern neuroscience—preparing you for advanced studies in graduate school, medicine, and other pre-health careers. Graduates can also go on to conduct research, teach, support government agencies, and work in the global or public health field.

For more information, visit the program website. (https://biology.columbian.gwu.edu/bs-neuroscience/)
ANTH 3413  Evolution of the Human Brain
BISC 2220  Developmental Neurobiology
BISC 3214  Developmental Biology
BISC 3320  Human Neurobiology
PSYC 3199  Current Topics in Psychology

Cognitive neuroscience—6 credits (two courses).
PSYC 3118  Neuropsychology
PSYC 3121  Memory and Cognition
PSYC 3122  Cognitive Neuroscience
PSYC 3124  Visual Perception
SPHR 2133  Autism
SPHR 3116  Brain and Language

Advanced biochemistry—3 or 4 credits (one course)
BISC 3261  Introductory Medical Biochemistry
CHEM 3165  Biochemistry I
CHEM 3166  Biochemistry II

3 or 4 credits (one course) research/laboratory experience.

This may be one semester of guided or independent research in ANTH, CHEM, PHIL, PSYC, or SPHR, or one of the following options: ³

Laboratory experience
BISC 2452 & BISC 2453  Animal Behavior and Animal Behavior Lab
PSYC 4107W  Research Lab in Cognitive Neuroscience
BISC 4171  Undergraduate Research
BISC 4171W  Undergraduate Research
BISC 4172  Independent Study
BISC 4180  Undergraduate Research Seminar

³SLHS courses are available only to students with a minimum GPA of 3.5 in major courses and/or the permission of the instructor.

GENERAL EDUCATION

In addition to the University General Education Requirement (http://bulletin.gwu.edu/university-regulations/general-education/#text), undergraduate students in Columbian College must complete a further, College-specific general education curriculum—Perspective, Analysis, Communication, or G-PAC (http://bulletin.gwu.edu/arts-sciences/gpac/). Together with the University General Education Requirement, G-PAC engages students in active intellectual inquiry across the liberal arts. Students achieve a set of learning outcomes that enhance their analytical skills, develop their communication competencies, and invite them to participate as responsible citizens who are attentive to issues of culture, diversity, and privilege.

G-PAC approved courses, Dean’s Seminars, and Sophomore Colloquia that may be available for registration are listed on the CCAS Advising website (https://advising.columbian.gwu.edu/general-education-courses/).

Coursework for the University General Education Requirement is distributed as follows:

• Writing—one approved course in university writing and two approved writing in the disciplines (WID) courses.
• Humanities—one approved course in the humanities that involves critical or creative thinking skills.
• Mathematics or Statistics—one approved course in either mathematics or statistics.
• Natural or Physical Science—one approved laboratory course that employs the process of scientific inquiry.
• Social Sciences—two approved courses in the social sciences.

Coursework for the Columbian College general education curriculum is distributed as follows:

• Arts—one approved course in the arts that involves the study or creation of artwork based on an understanding or interpretation of artistic traditions or knowledge of art in a contemporary context.
• Global or Cross-Cultural Perspective—one approved course that analyzes the ways in which institutions, practices, and problems transcend national and regional boundaries.
• Humanities—one approved course in the humanities that involves critical thinking skills (in addition to the one course in this category required by the University General Education Requirement).
• Local or Civic Engagement—one approved course that develops the values, ethics, disciplines, and commitment to pursue responsible public action.

138 credits (10 courses) if MATH 1231 is taken or 41 credits (11 courses) if MATH 1220 and MATH 1221 are taken

2Recommended for premed students. In addition, premed students are advised to take BISC 2322 Human Physiology, BISC 2337 Introductory Microbiology Laboratory, SOC 1001 Introduction to Sociology.
• Natural or Physical Science—one approved laboratory course that employs the process of scientific inquiry (in addition to the one course in this category required by the University General Education Requirement.
• Oral Communication—one course in oral communication.

Certain courses are approved to fulfill the requirement in more than one of these categories.

Courses taken in fulfillment of G-PAC also may be counted toward majors or minors. Transfer courses taken prior to, but not after, admission to George Washington University may count toward the University General Education Requirement and G-PAC, if those transfer courses are equivalent to GW courses that have been approved by the University and the College.

SPECIAL HONORS

In addition to the general requirements stated under University Regulations, in order to be considered for graduation with Special Honors, students must maintain a cumulative 3.5 grade-point average in biological sciences courses and at least a 3.0 cumulative overall grade-point average. Students who meet these criteria and wish to pursue special honors must complete an approved research project under faculty direction.

COMBINED PROGRAM

• Dual Bachelor of Science with a major in neuroscience and Master of Science in the field of biological sciences (http://bulletin.gwu.edu/arts-sciences/biological-sciences/dual-bs-neuroscience-ms-biological-sciences/)