



*Neuropsychology and Biological
Bases*

What is Neuropsychology?

- Neuropsychology is the study of how behavior and cognition are impacted by the brain and nervous system. More information on neuropsychology can be found using the links provided below:

<https://my.clevelandclinic.org/health/articles/24691-neuropsychologist>

https://www.youtube.com/watch?v=AnHG-BQr8dM&ab_channel=NJBrainHealth

https://www.youtube.com/watch?v=V9So2yPCoSs&ab_channel=Phil%27sGuidetoPsy.D.

What is Biological Bases?

- Biological Bases integrates psychology and biology by explaining our behavior and cognition through physiological processes in addition to brain structure and function.

Potential Career Paths in Neuropsychology/Biological Bases:

- Neuropsychologist.
 - This path requires receiving either an M.A. or Ph.D., and has three subdiscipline focuses:
 1. Clinical focus.
 2. School focus.
 3. Cognitive/Behavioral focus.
- Research Scientist/Biomedical Researcher.
 - This path requires receiving a Ph.D.

Undergraduate Recommended Courses in Psychology:

- Adult Development (**PSY 312**).
- Sensation and Perception (**PSY 324***).
- Animal Behavior (**PSY 350**).
- Psychology of Learning (**PSY 416***).
- Intermediate Behavioral Statistics (**PSY 417***).
- Physiological Psychology (**PSY 440**).
- Health Psychology (**PSY 443***).
- History and Systems of Psychology (**PSY 460**).

* make sure to look at the pre-requisites for these courses, as there are more than just PSY 201! Ask an Advising Officer if you have any questions 😊

Undergraduate Recommended Courses Outside of Psychology:

- Introduction to Biology (**BSC 104 + L**).
- Human Biology (**BSC 105 + L**).
- Principles of Biology I (**BSC 120 + L***).
- Principles of Biology II (**BSC 121 + L***).
- Human Anatomy (**BSC 227 + L**).
- Human Physiology (**BSC 228 + L***).
- Neuroscience (**BSC 428***).
- Principles of Chemistry I (**CHM 211 + 217***).
- Principles of Chemistry II (**CHM 212 + 218***).
- Introductory Biochemistry (**CHM 365***).
- Conceptual Physics (**PHY 101 + L***).
- College Physics I (**PHY 201 + 202***).
- College Physics II (**PHY 203 + 204***).
- Plane Trigonometry (**MTH 122***).
- College Algebra (**MTH 130***).
- Applied Calculus (**MTH 140***).
- Introductory Statistics (**STA 225***).
- Medical-Lab Terminology (**CLS 105**).
- Comprehensive Medical Terminology (**HS 200**).
- Ethics of Healthcare (**PHL 202**).

* make sure to look at the pre-requisites for these courses! Ask an Advising Officer if you have any questions ☺

Recommended Minors and Certificates:

- Addiction Studies Minor.
- Biological Sciences Minor.
- Statistics Minor.

Accelerated Masters Students Recommended Courses:

- Psychometrics (**PSY 506** instead of PSY 406).
- Abnormal Psychology (**PSY 508** instead of PSY 408).
- Physiological Psychology (**PSY 540** instead of PSY 440).
- History and Systems of Psychology (**PSY 560** instead of PSY 460).

Is Graduate Training Required?

- Yes, graduate-level training is required within this subdiscipline of psychology.
- Consider joining the National Academy of Neuropsychology as a Trainee member! This can occur in both your undergraduate and your graduate training in neuropsychology. Trainee membership lasts for five years, but you can request an extension if you are still in school.

https://www.nanonline.org/nan/Membership/Membership_Information/NAN/Membership.aspx?hkey=bde0b3fe-fe87-4319-a81e-95d7c52c3ccd

Ways to Stand Out in Neuropsychology/Biological Bases:

- Clinical Experience:
 - Neuropsychologists are expected to have a strong background in science, and students following this pathway may benefit from shadowing psychologists in a medical hospital or primary care setting. If possible, shadowing a neuropsychologist or neurologist will provide greater understanding of the field.
- Volunteer Work:
 - It is always a good idea to volunteer when considering graduate school or a career (it looks great on a resume)! Find something that you are passionate about and interests you and get involved with the community. This could include helping to organize an event or working to help others, for example.
- Research:
 - Getting involved in research is HIGHLY recommended in this subdiscipline. Within the Psychology Department, talk with Dr. Day-Brown about research opportunities.
 - You may also be interested in pursuing biological research. Research opportunities and interests within the Biology Department can be found here: <https://www.marshall.edu/biology/faculty-research-interests/>