



NEUROSCIENCE PROGRAM COURSE LISTING

NEUROSCIENCE PROGRAM REQUIRED COURSES:

NSO506 Introduction to Neuroscience; 5 QH, grade, Fall Quarter

NSO902 Introduction to Research in Neuroscience; 1 QH, Winter Quarter

NSO802 Advanced Topics and Techniques in Neuroscience; 3 QH, grade, Fall Quarter

NSO507 Neurobiology of Disease; 3 QH, grade, Winter or Spring Quarter

NSO510 Introduction to Developmental Neurobiology; 2 QH, grade, Spring Quarter

ATO1012 Medical Neuroscience (part of MS-I Course); 8 QH, grade, Spring Quarter

IDO502 Experimental Statistics; 3 QH, grade, Fall Quarter

NSO601 Neuroscience Seminar; 1 QH, seminar series, taken each Fall, Winter & Spring Quarter

NSO701 Neuroscience Tutorial; 1 QH, grade, Spring or Winter Quarter; student presented seminars, re-taken each year

NSO901 Neuroscience Research; variable credit, covers rotations and dissertation research

IDO704 Ethics and responsible conduct of research; 1 QH, credit, Fall Quarter (required by graduate school)

NSO508 Neuroscience Journal Club; 1 QH, credit Fall, Winter, and Spring Quarters

NSO531 Principles of electrophysiology; 3 QH, grade, Winter Quarter

PHO513 Principles of Pharmacology; 5 QH, grade, Spring Quarter

MCB509 Cell Biology; 4 QH grade, Fall Quarter

HIGHLY RECOMMENDED COURSES:

NSO520 Molecular Basis of Nervous System Function; 2 QH grade, Winter or Spring Quarter

NSO530 Behavioral Neurobiology; 3 QH grade, Fall or Winter Quarter, given every other year

BCO520/522 Graduate Biochemistry I & II; 6 QH grade, Fall & Winter Quarters

NSO903 Traumatic Brain Injury; 3 QH grade, Winter Quarter, given every other year

OTHER ELECTIVE COURSES:

MCB531 Intro Immunology; 3 QH, grade, Fall Quarter

MCB504 Eukaryotic Genetics; 4 QH, grade, Winter Quarter

MCB530 Signal Transduction; 2 QH, grade, Winter Quarter

MCB000 Advanced Cell Biology; 3 QH, grade, Spring Quarter

Additional courses are available through the University (see <http://www.usuhs.mil/graded/coursedescriptions.html> for full list of available courses at USUHS).

Additional course credits can also be applied at USUHS from courses taken through the Foundation for Advanced Education in the Sciences Graduate School program associated with the National Institutes of Health (<http://www.faes.org/>).

12 credit hours per quarter are required for full time student status.

(48 credit hours in graded courses are required for advancement to candidacy at the end of the second year).

Typical/Suggested Schedule, Year 1:

Fall Quarter:	Q. Hrs
Introduction to Neuroscience	5
Ethics and Responsible Conduct in Research	1
Adv. Topics & Techniques in Neuroscience	3
Experimental Statistics	3
Neuroscience Research Rotation I	Variable (>1)
Neuroscience Seminar	1
Intro to Research in Neuroscience	1
Neuroscience Journal Club	1

Winter Quarter:	Q. Hrs
Neuroscience Seminar	1
Principles of Electrophysiology	3
Neuroscience Journal Club	1
Behavioral Neuroscience	3
Neuroscience Research rotation II	Variable (>1)

Spring Quarter:	Q. Hrs
<i>Medical Neuroscience</i>	8
Neuroscience Seminar	1

Neuroscience Research rotation III Variable (>1)

Summer Quarter:	Q. Hrs
Neuroscience Thesis Research	12

Students choose a thesis lab after the third rotation.

Typical/Suggested Schedule, Year 2:

Fall Quarter:	Q. Hrs
Biochemistry I	3-5
Cell Biology	4
Neuroscience Journal Club	1
Neuroscience Seminar	1
Neuroscience Thesis Research variable	(>1)

Winter Quarter:	Q. Hrs.
Traumatic Brain Injury	3
Biochemistry II	3-5
Neuroscience Seminar	1
Molecular Basis of Nervous System Function	2
Neuroscience Thesis Research variable	(>1)
Neuroscience Journal Club	1
Neuroscience tutorial (student seminar)	1

Spring Quarter:	Q. Hrs.
Principles of Pharmacology	5
Developmental Neurobiology	3
Neurobiology of Disease	3
Neuroscience Seminar	1
Neuroscience Thesis Research variable	(>1)
Neuroscience Journal Club	1

Summer Quarter:	Q. Hrs.
Neuroscience Thesis Research	12

The qualifying examination (written and oral components) are taken in the Spring/Summer of the second year.

The thesis advisory committee will be assembled by the end of the second year.

Typical/Suggested Schedule, Year 3 and beyond:

Fall Quarter:	Q Hrs
Neuroscience Thesis Research	11
Neuroscience Seminar	1

Winter Quarter:	Q. Hrs.
Neuroscience Thesis Research	11
Neuroscience Seminar	1

Spring Quarter:	Q. Hrs.
Neuroscience Thesis Research	10

Neuroscience tutorial (student seminar) 1
Neuroscience Seminar 1

Summer Quarter:

Neuroscience Research 12

Students defend a proposal of their dissertation research project to their Thesis Advisory Committee by end of Year 3.

During subsequent years, students meet with their Thesis Advisory Committee every 6 months.

Students have a maximum of 7 years to complete the doctoral degree in any USUHS graduate program.