

# PHYSIOLOGY AND NEUROBIOLOGY (MS, PHD)

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The Department of Physiology and Neurobiology (PNB) offers Doctor of Philosophy (Ph.D.) as well as Plan A (Thesis) or Plan B (Coursework) M.S. degrees in Physiology and Neurobiology. Possible areas of focus include molecular, cellular, and systems level neurobiology, endocrinology, reproductive physiology, or liver biology. The PNB graduate program offers opportunity for intellectual growth through learning and discovery, development of technical and problem-solving skills, critical thinking, and effective scientific communication.

## Requirements

The Ph.D. and M.S. degree requirements in Physiology and Neurobiology conform to the Graduate School requirements. Ph.D. and M.S. degrees in PNB require completion of a set of four core graduate courses from the PNB department, chosen from a list of approved courses (see below). Ph.D. students will generally complete an additional two to four advanced courses from inside or outside of PNB chosen in consultation with the student's advisory committee. The Ph.D. in PNB does not have a related area or foreign language requirement. Research activities for Ph.D. students are primarily credited as PNB 5396 Research in Physiology and Neurobiology but must also include 15 credits of GRAD 6950 Doctoral Dissertation Research. M.S. students will complete a minimum of 30 credits, including nine credits of GRAD 5950 Master's Thesis Research for the Plan A M.S. All graduate students are required to register for PNB 6405 Seminar in Research and Journal Presentations in Physiology and Neurobiology and PNB 5395 Investigation of Special Topics in Physiology and Neurobiology each semester.

## M.S. and Ph.D. Required Core Courses

At least one three-credit neurobiology course; at least one three-credit physiology course; and two additional three-credit PNB graduate level courses chosen in consultation with the student's advisory committee. Students are expected to pass all four core courses with a grade of "B-" or better. Course offerings that fulfill the core course requirements with an emphasis in Neurobiology include:

Course	Title	Credits
PNB 6417	Developmental Neurobiology	3
PNB 6426	Molecular and Cellular Neurobiology	3
PNB 5700	Sensory Physiology	3

Core courses that fulfill an emphasis in Physiology include:

Course	Title	Credits
PNB 5270	Molecular Endocrinology	3
PNB 5350	Membrane Transport in Health and Disease	3

No more than two of PNB 5700 Sensory Physiology, PNB 5270 Molecular Endocrinology, or PNB 5350 Membrane Transport in Health and Disease can be used to fulfill the core course requirements.