

MUSIC 441 (1-2), 442 (1-2), 443 (1)—Applied Music

Prerequisite: Permission of the instructor. One credit is earned for a one-half hour private lesson and a minimum of five hours practice a week during the fall and winter terms; a one hour private lesson and a minimum of 10 hours practice a week are required during the spring term. A two-credit course requires double the lesson and practice time. *Staff.*

Fall-Winter-Spring

MUSIC 473 (3)—Senior Thesis

Prerequisite: Music major and permission of the instructor. For theory composition students, this culminates with a recital of original compositions or an analytical thesis. For history students, this culminates with the writing and representation of a thesis. For performance students, this culminates with a full-length formal recital. *Staff.*

Fall, Winter

MUSIC 493 (3-3)—Honors Thesis

Prerequisites: Honors candidacy and senior standing. A summary of prerequisites and requirements may be obtained from the department head.

Fall-Winter

NEUROSCIENCE

PROFESSOR JARRARD*

A major in **neuroscience** leading to a Bachelor of Science degree requires the completion of at least the following 50 credits:

1. Biology 112, 215; Chemistry 241, 242; Neuroscience 120, 395; Psychology 111, 180, 253
2. Either Biology 250, 255 or 365
3. Either Psychology 255, 257 or 258
4. At least six credits chosen from the following:
 - Biology 422, 423, 424, 425, 426, 492-496
 - Chemistry 421, 422, 423, 433, 436, 439, 471, 472, 473, 493
 - Computer Science 251 (Engineering 251)
 - Neuroscience 403, 493
 - Psychology 353, 355, 357, 431, 432, 433, 473, 493
5. Additional credits chosen from the list below of approved neuroscience courses.

Additional courses required as prerequisites for completion of the above include Biology 111 and Chemistry 111 and 112.

Students contemplating application to graduate programs or medical school should note that Chemistry 341 (Biochemistry), Mathematics 102 (Calculus II), and Physics 109 (General Physics II) are either required or highly recommended by most admissions committees.

HONORS: An Honors Program in neuroscience is offered for qualified students; see program head for details.

Neuroscience courses are as follows; for course descriptions, see the appropriate departmental listings:

Biology 112—General Biology II
 Biology 215—Cell and Molecular Biology
 Biology 250—Vertebrate Endocrinology
 Biology 255—Reproductive Physiology
 Biology 365—Developmental Biology
 Biology 397—Special Topics in Neuroendocrinology
 (May be substituted for Neuroscience 395)
 Biology 422-426—Directed Individual Research
 Biology 492-496—Honors Thesis
 Chemistry 241—Organic Chemistry I
 Chemistry 242—Organic Chemistry II
 Chemistry 421-423—Directed Individual Research
 Chemistry 433-439—Tutorial
 Chemistry 471-473—Senior Thesis
 Chemistry 493—Honors Thesis
 Computer Science 251—Laboratory Computer Applications
 Engineering 251—Laboratory Computer Applications
 Neuroscience 120—Introduction to Neuroscience
 Neuroscience 395—Special Topics in Neuroscience
 Psychology 111—Brain and Behavior
 Psychology 180—Research Design and Analysis
 Psychology 253—Physiological Psychology
 Psychology 255—Experimental Psychology; Cognitive Neuroscience
 Psychology 257—Psychobiology of Development
 Psychology 353—Directed Research in Physiological Psychology

*Head of Neuroscience Program Advisory Committee

Psychology 355—Directed Research in Cognitive Neuroscience

Psychology 357—Directed Research in Developmental Psychobiology

Psychology 431-433—Tutorials in Psychology

Psychology 493—Honors Thesis

NEUROSCIENCE 120 (3)—Introduction to Neuroscience

An introduction to neuroscience emphasizing the molecular organization, chemistry, and physiology of the neuron, how neurons are organized into functional circuits, and how these functional circuits process information and control both normal and abnormal behavior. *R. Stewart.*

Winter

NEUROSCIENCE 395 (1, 2 or 3)—Special Topics in Neuroscience

Prerequisites: Neuroscience 120 and junior standing.

A seminar designed to provide the advanced student with a broader knowledge of the field of neuroscience. Specific topics will vary and will be determined, in part, by student interest. May be repeated for credit with permission and if the topics are different. *Staff.*

Fall, Winter

NEUROSCIENCE 403 (3)—Directed Individual Study

Prerequisites: Permission of the Neuroscience Faculty. Limited to students who have attempted unsuccessfully an honors thesis in neuroscience. Staff.

NEUROSCIENCE 493 (3-3)—Honors Thesis

Prerequisites: Senior standing and honors candidacy. Individual conference. Staff.

Fall-Winter

PHILOSOPHY

Pierre S. duPont Foundation

PROFESSORS SESSIONS, BOGGS, ELROD, PEMBERTON

ASSISTANT PROFESSOR WILSON

MAJOR

A major in **philosophy** leading to a Bachelor of Arts degree requires completion of 42 credits including the following:

1. At least 30 credits in philosophy, exclusive of Philosophy 473 and 493, and including
 - a. Philosophy 106;
 - b. at least 21 credits chosen from philosophy courses numbered 200 and above; and
 - c. four courses in the history of philosophy or major figures chosen from among the following: Philosophy 141, 142, 144, 221 (Classics 221), 222, 263, 265, 311, 314, 316, and 195, 395, and 403 when the topics are appropriate
2. At least nine credits chosen from offerings in philosophy or related disciplines, with the approval of the department head
3. Philosophy 473(3) or 493(3-3). The thesis is prepared under the supervision of an adviser and is presented for evaluation in the student's final term, normally the spring term of the senior year

HONORS: An Honors Program in philosophy is offered for qualified students; see department head for details.

SPECIAL PROGRAM: See description of Cognitive Science on Pages 87 and 127.

★PHILOSOPHY 101 (3)—Problems of Philosophy

Open to freshmen and sophomores only. An introduction to some of the major ethical, political, and social problems we persistently confront. Selected readings from major philosophers. *Staff.*

Fall, Winter

★PHILOSOPHY 102 (3)—Problems of Philosophy

Open to freshmen and sophomores only. An introduction to some of the major problems that arise in inquiry into the nature of knowledge and reality. Selected readings from major philosophers. *Staff.*

Fall

★PHILOSOPHY 106 (3)—Introduction to Logic

The study of argumentation and modern formal logic. This course explores the basic principles of deductive and inductive reasoning. Students learn to symbolize and evaluate natural language arguments. Topics covered include the study of formal and informal fallacies, propositional and predicate logic, scientific induction, and probabilities. *Wilson.*

Winter

★PHILOSOPHY 108 (3)—Ethics and the Environment

Prerequisite: Permission of the instructor. An exploration of one's responsibilities to the natural world through the writings of Thoreau, John Muir, Aldo Leopold, and others and analysis of patterns of land use in the United States since the colonial period. *Boggs.*

Fall