

SCHOOL OF BIOMEDICAL SCIENCES

College of Sciences and Humanities

School of Biomedical Sciences

Cunningham Hall

Kent Campus

330-672-2263

www.kent.edu/biomedical

Graduate Programs

- Biomedical Sciences - Cellular and Molecular Biology - M.S.
- Biomedical Sciences - Cellular and Molecular Biology - Ph.D.
- Biomedical Sciences - Human Evolutionary Biology - Ph.D.
- Biomedical Sciences - Neurosciences - M.S.
- Biomedical Sciences - Neurosciences - Ph.D.
- Biomedical Sciences - Pharmacology - M.S.
- Biomedical Sciences - Pharmacology - Ph.D.
- Biomedical Sciences - Physiology Interdisciplinary - M.S.
- Biomedical Sciences - Physiology Interdisciplinary - Ph.D.

Biomedical Sciences (BMS)

BMS 40196 INDIVIDUAL INVESTIGATION IN BIOMEDICAL SCIENCES (ELR) 1-3 Credit Hours

(Repeatable for credit) Research study under the direction of a BMS faculty mentor. Students majoring in biochemistry, biology, biotechnology, chemistry, neuroscience and physics are eligible to enroll in this course, but must have 18 credit hours in their major completed.

Prerequisite: Minimum 2.750 overall GPA; and Biochemistry major or Biology major or Biotechnology major or Chemistry major or Neuroscience major or Physics major; and departmental and faculty mentor approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

BMS 50703 NEURAL MECHANISMS OF LEARNING AND MEMORY 3 Credit Hours

(Slashed with BMS 70703) Course examines the neural and molecular mechanisms underlying learning and memory formation. Covers cellular mechanisms of learning, including long-term potentiation and basic electrophysiology in invertebrate and mammalian preps. Transcriptional and post-translational modifications required for learning and memory formation, genomic signaling and protein synthesis. Also covers structural changes of neurons associated with memory formation, and the different behavioral methods for studying memory.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 60110 CAREER AND PROFESSIONAL SKILLS FOR LIFE SCIENTISTS 2 Credit Hours

(Cross-listed with BSCI 60110)(Slashed with BMS 80110 and BSCI 80110) This course helps prepare graduate students for advanced careers in science. Students learn about a variety of possible careers, prepare application materials and develop their professional oral and writing skills.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 60120 LABORATORY TECHNIQUES IN BIOMEDICAL SCIENCES 2 Credit Hours

(Repeatable once for credit) Minimum of two laboratory rotations per semester by arrangement with individual faculty members.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 60196 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for a maximum of 6 credit hours) (Slashed with BMS 70196) Directed investigation under supervision of faculty member in biomedical sciences and with prior approval.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

BMS 60198 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research for master's level graduate students. Credits earned may be applied toward degree requirements if department approves.

Prerequisite: Graduate standing; and special approval of adviser.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BMS 60199 THESIS I 2-6 Credit Hours

Thesis students must register for a minimum of 6 hours, 2 to 6 hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing; and special approval of adviser.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BMS 60200 FOUNDATIONS OF NEUROSCIENCE 3 Credit Hours

(Slashed with BMS 80200) (Cross-listed with BSCI 60200 and BSCI 80200) This is a graduate-level introductory neuroscience course that will survey aspects of molecular and cellular neuroscience, the biophysics of the nervous system, basic neuroanatomy, and the homeostatic regulation of the periphery. After completion of this course students should have an understanding of how cells of the nervous system work, how these cells interact with homeostatic systems important to the regulation of peripheral physiology and behavior, and the basic neuroanatomy of these regulatory systems, including major neurotransmitter and neuroendocrine systems. Upon completion of this course, students should be prepared for advanced neuroscience coursework.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 60251 THEORY AND PRACTICE OF CLONING AND GENETIC ENGINEERING 2 Credit Hours

(Slashed with BMS 70251) Recent advances in the development and understanding of genetic engineering, genomic DNA organization and gene therapy will be discussed.

Prerequisite: BSCI 50158; and graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BMS 60291 SEMINAR IN CELLULAR AND MOLECULAR BIOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 70291) Credits may be applied toward degree if department approves.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 60295 SPECIAL TOPICS IN CELLULAR AND MOLECULAR BIOLOGY 1-5 Credit Hours

(Slashed with BMS 70295)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 60299 THESIS II 2 Credit Hours

Thesis students must continue registration each semester until all degree requirements are met.

Prerequisite: 6 hours of BMS 60199; and graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BMS 60440 CELLULAR AND MOLECULAR SIGNALING 3 Credit Hours

(Slashed with BMS 70440) The relevant and current topics associated with cellular signaling are covered. Topics include receptor pharmacology, classes and regulation, transcription factors, cell cycle signaling and cell-cell communication.

Prerequisite: BSCI 40143 or BSCI 50143 or BSCI 70143; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 60462 NEUROBIOLOGY: SYSTEMS AND BEHAVIOR 4 Credit Hours

(Slashed with BMS 70462) (Cross-listed with BSCI 60462 and BSCI 80462). Provides broad coverage of the parts of the central nervous systems and how they integrate sensory information, drive motor function and regulate behavior.

Prerequisite: BMS 60729 or BMS 70729; and graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 60465 MEDICAL NEUROSCIENCE 6 Credit Hours

(Slashed with BMS 70465) Detailed examination of human neuroanatomy and nervous system function.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Combined Lecture and Lab

Contact Hours: 5 lecture, 3 lab

Grade Mode: Standard Letter

BMS 60491 SEMINAR IN MEDICAL PHYSIOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 70491) Credits may be applied toward degree if department approves.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 60495 SPECIAL TOPICS IN PHYSIOLOGY 1-5 Credit Hours

(Slashed with BMS 70495)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 60502 MOLECULAR PHARMACOLOGY 4 Credit Hours

(Slashed with BMS 70502) General principles of pharmacology including metabolism, action, interactions, side effects, toxicity and therapeutic use of select drug topics. Focus is placed on the molecular and cellular targets of drug action.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 60591 SEMINAR IN PHARMACOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 70591) Credits may be applied toward degree if department approves. Repeated registration permitted.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 60595 SPECIAL TOPICS IN PHARMACOLOGY 1-5 Credit Hours

(Slashed with BMS 70595)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 60596 INDIVIDUAL INVESTIGATION IN PHARMACOLOGY 1-3 Credit Hours

(Slashed with BMS 70596) (Repeatable for credit) Experience with various laboratory techniques and procedures used in pharmacological research with application to experimental designs.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3 other

Grade Mode: Standard Letter-IP

BMS 60729 CELLULAR AND MOLECULAR NEUROSCIENCE 4 Credit Hours

(Slashed with BMS 70729) The relation of aspects of the neurosciences to the fundamental properties of nervous tissue, establishing a firm base in experimental neurobiology.

Prerequisite: Graduate standing; and special approval of instructor.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 60751 CURRENT RESEARCH IN AUDITORY NEUROBIOLOGY 1 Credit Hour

(Slashed with BMS 70751) (Repeatable for a maximum of four credit hours) Presentation-based by faculty in the Auditory Neuroscience Group. Topics will vary each semester. Each class presentation will highlight recent advances in auditory neurobiology, cover relevant background, and involve discussion of methodology, experimental design, and interpretive issues related to the research. Students will prepare a presentation on a topic chosen in conjunction with one of the faculty members. Assessment is based on presentation quality and active participation throughout the semester.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 60791 SEMINAR IN NEUROBIOLOGY 1 Credit Hour

(Slashed with BMS 70791) (Repeatable for credit) Credits may be applied toward degree if department approves.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 60795 SPECIAL TOPICS IN NEUROBIOLOGY 1-5 Credit Hours

(Slashed with BMS 70795)(Repeatable for credit) Study of problems of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 61000 RESPONSIBLE CONDUCT OF RESEARCH 1 Credit Hour

(Slashed with BMS 71000) Introduction to professional and ethical conduct of research. Topics include codes and laws governing research, identification of scientific misconduct, plagiarism, authorship and intellectual properties, ethical animal and human research.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

BMS 61001 INTRODUCTION TO BIOMEDICAL SCIENCES 1 Credit Hour

(Slashed with BMS 71001) Seminar for all students in Biomedical Sciences. Repeat registration permitted.

Prerequisite: Biomedical Sciences major; and graduate standing.

Schedule Type: Seminar

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 70120 LABORATORY TECHNIQUES IN BIOMEDICAL SCIENCES 2 Credit Hours

(Slashed with BMS 60120) (Repeatable once for credit) Minimum of two laboratory rotations per semester by arrangement with individual faculty members. May be repeated once.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Research

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 70196 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Slashed with BMS 60196) (Repeatable for credit) Directed investigation under supervision of faculty member in biomedical sciences and with prior approval.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

BMS 70251 THEORY AND PRACTICE OF CLONING AND GENETIC ENGINEERING 2 Credit Hours

(Slashed with BMS 60251) Recent advances in the development and understanding of genetic engineering, genomic DNA organization and gene therapy will be discussed.

Prerequisite: BSCI 50158; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

BMS 70291 SEMINAR IN CELLULAR AND MOLECULAR BIOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 60291) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 70295 SPECIAL TOPICS IN CELLULAR AND MOLECULAR BIOLOGY 1-5 Credit Hours

(Slashed with BMS 60295)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 70440 CELLULAR AND MOLECULAR SIGNALING 3 Credit Hours

(Slashed with BMS 60440) The relevant and current topics associated with cellular signaling are covered. Topics include receptor pharmacology, classes and regulation, transcription factors, cell cycle signaling and cell-cell communication.

Prerequisite: BSCI 40143 or BSCI 50143 or BSCI 70143; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 70462 NEUROBIOLOGY: SYSTEMS AND BEHAVIOR 4 Credit Hours

(Slashed with BMS 60462) (Cross-listed with BSCI 60462 and BSCI 80462) Provides broad coverage of the parts of the central nervous systems and how they integrate sensory information, drive motor function and regulate behavior.

Prerequisite: BMS 60729 or BMS 70729; and doctoral standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 70465 MEDICAL NEUROSCIENCE 6 Credit Hours

(Slashed with BMS 60465) Detailed examination of human neuroanatomy and nervous system function.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Combined Lecture and Lab

Contact Hours: 5 lecture, 3 lab

Grade Mode: Standard Letter

BMS 70491 SEMINAR IN MEDICAL PHYSIOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 60491) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 70495 SPECIAL TOPICS IN PHYSIOLOGY 1-5 Credit Hours

(Slashed with BMS 60495)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 70502 MOLECULAR PHARMACOLOGY 4 Credit Hours

(Slashed with BMS 60502) General principles of pharmacology including metabolism, action, interactions, side effects, toxicity and therapeutic use of select drug topics. Focus is placed on the molecular and cellular targets of drug action.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 70591 SEMINAR IN PHARMACOLOGY 1 Credit Hour

(Slashed with BMS 60591) (Repeatable for credit) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 70595 SPECIAL TOPICS IN PHARMACOLOGY 1-5 Credit Hours

(Slashed with BMS 60595)(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 70596 INDIVIDUAL INVESTIGATION IN PHARMACOLOGY 1-3 Credit Hours

(Slashed with BMS 60596) (Repeatable for credit) Experience with various laboratory techniques and procedures used in pharmacological research with application to experimental designs.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

BMS 70703 NEURAL MECHANISMS OF LEARNING AND MEMORY 3 Credit Hours

(Slashed with BMS 50703) Course examines the neural and molecular mechanisms underlying learning and memory formation. Covers cellular mechanisms of learning, including long-term potentiation and basic electrophysiology in invertebrate and mammalian preps. Transcriptional and post-translational modifications required for learning and memory formation, genomic signaling and protein synthesis. Also covers structural changes of neurons associated with memory formation, and the different behavioral methods for studying memory.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 70729 CELLULAR AND MOLECULAR NEUROSCIENCE 4 Credit Hours

(Slashed with BMS 60729) The relation of aspects of the neurosciences to the fundamental properties of nervous tissue, establishing a firm base in experimental neurobiology.

Prerequisite: Doctoral standing; and special approval of instructor.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

BMS 70751 CURRENT RESEARCH IN AUDITORY NEUROBIOLOGY 1 Credit Hour

(Slashed with BMS 60751) (Repeatable for a maximum of four credit hours) Presentation-based by faculty in the Auditory Neuroscience Group. Topics will vary each semester. Each class presentation will highlight recent advances in auditory neurobiology, cover relevant background, and involve discussion of methodology, experimental design, and interpretive issues related to the research. Students will prepare a presentation on a topic chosen in conjunction with one of the faculty members. Assessment is based on presentation quality and active participation throughout the semester.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 70791 SEMINAR IN NEUROBIOLOGY 1 Credit Hour

(Repeatable for credit) (Slashed with BMS 60791) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 70795 SPECIAL TOPICS IN NEUROBIOLOGY 1-5 Credit Hours
(Slashed with BMS 60795)(Repeatable for credit) Study of problems of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 71000 RESPONSIBLE CONDUCT OF RESEARCH 1 Credit Hour
(Slashed with BMS 61000) Introduction to professional and ethical conduct of research. Topics include codes and laws governing research, identification of scientific misconduct, plagiarism, authorship and intellectual properties, ethical animal and human research.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

BMS 71001 INTRODUCTION TO BIOMEDICAL SCIENCES 1 Credit Hour

(Slashed with BMS 61001) Introductory seminar for new students in Biomedical Sciences graduate programs. This seminar will expose students to the different faculty research programs available in the program.

Prerequisite: Doctoral standing in Biomedical Sciences.

Schedule Type: Seminar

Contact Hours: 1 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 78630 PRINCIPLES OF BIOLOGICAL ANTHROPOLOGY 3 Credit Hours

(Slashed with ANTH 68630) Graduate-level introduction to the field of biological anthropology. Topics include genetics, human variation, fossil and modern primates and early man.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 78637 BIOANTHROPOLOGICAL DATA ANALYSIS I 5 Credit Hours

(Cross-listed with ANTH 68637) Examination of methods of univariate and bivariate experimental design. This survey emphasizes tests of hypothesis and estimation techniques with both classical and nonparametric procedures.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 5 lecture

Grade Mode: Standard Letter

BMS 78638 BIOANTHROPOLOGICAL DATA ANALYSIS II 3 Credit Hours

(Cross-listed with ANTH 68638) This survey of multivariate analysis in anthropology includes one-sample data exploration, multiple sample problems and regression methods. It also includes computer applications.

Prerequisite: BMS 78637; and Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 78691 SEMINAR IN BIOLOGICAL ANTHROPOLOGY 1 Credit Hour

(Repeatable for credit) Credits may be applied toward degree if department approves.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Seminar

Contact Hours: 1 other

Grade Mode: Satisfactory/Unsatisfactory

BMS 78692 FIELD WORK IN PALEOANTHROPOLOGY 1-5 Credit Hours

(Repeatable for credit) Excavation and/or field survey of miocene and/or plio-pleistocene hominid localities.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Field Experience

Contact Hours: 1-5 other

Grade Mode: Standard Letter

BMS 78695 SPECIAL TOPICS IN BIOLOGICAL ANTHROPOLOGY 1-5 Credit Hours

(Repeatable for credit) Study of subject or problem of current importance. Content dependent upon student requirements and recent developments in the field. Sections may be standard letter or satisfactory/unsatisfactory (S/U) graded.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Lecture

Contact Hours: 1-5 lecture

Grade Mode: Standard Letter-S/U

BMS 80110 CAREER AND PROFESSIONAL SKILLS FOR LIFE SCIENTISTS 2 Credit Hours

(Cross-listed with BSCI 80110)(Slashed with BMS 60110 and BSCI 60110) This course helps prepare graduate students for advanced careers in science. Students learn about a variety of possible careers, prepare application materials and develop their professional oral and writing skills.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Satisfactory/Unsatisfactory

BMS 80198 RESEARCH 1-15 Credit Hours

(Repeatable for credit) Research for doctoral students who have not yet passed candidacy examination.

Prerequisite: Doctoral standing; and special approval of adviser.

Schedule Type: Research

Contact Hours: 1-15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BMS 80199 DISSERTATION I 15 Credit Hours

(Repeatable for credit) Doctoral dissertation, for which registration in at least two semesters is required, first of which will be semester in which dissertation work is begun and continuing until the completion of 30 hours. Students must successfully complete the doctoral exam before taking this course.

Prerequisite: Doctoral standing; and special approval.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP

BMS 80200 FOUNDATIONS OF NEUROSCIENCE 3 Credit Hours

(Slashed with BMS 60200) (Cross-listed with BSCI 60200 and BSCI 80200) This is a graduate-level introductory neuroscience course that will survey aspects of molecular and cellular neuroscience, the biophysics of the nervous system, basic neuroanatomy, and the homeostatic regulation of the periphery. After completion of this course students should have an understanding of how cells of the nervous system work, how these cells interact with homeostatic systems important to the regulation of peripheral physiology and behavior, and the basic neuroanatomy of these regulatory systems, including major neurotransmitter and neuroendocrine systems. Upon completion of this course, students should be prepared for advanced neuroscience coursework.

Prerequisite: Doctoral standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

BMS 80299 DISSERTATION II 15 Credit Hours

(Repeatable for credit) Continuing registration of doctoral students who have completed the initial 30 hours of dissertation and continuing until all degree requirements are met.

Prerequisite: 30 hours of BMS 80199; and Doctoral standing.

Schedule Type: Dissertation

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory-IP