Neurobiology-NB (NB)

Courses

NB 192 Introductory Neuroscience Seminar  Credit: 1 (0-0-1)
Course Description: Introduction to neuroscience; discussion of concentrations, career paths and research opportunities. Group activities and strategies for success.
Prerequisite: None.
Registration Information: Written consent of instructor required.
Terms Offered: Fall, Spring.
Grade Mode: S/U Sat/Unsat Only.
Special Course Fee: No.

NB 292 Research Topics in Neuroscience Credit: 1 (0-0-1)
Course Description: A discussion of current research interests of neuroscience faculty.
Prerequisite: None.
Registration Information: Neuroscience majors only. May only be taken once for credit.
Term Offered: Spring.
Grade Mode: S/U Sat/Unsat Only.
Special Course Fee: No.

NB 399 Thesis Preparation Credit: 1 (0-0-1)
Course Description: Preparation for senior thesis in Neuroscience.
Prerequisites: (CO 300 or CO 301B) and (BMS 300).
Registration Information: Junior standing in Neuroscience major.
Terms Offered: Fall, Spring.
Grade Mode: S/U Sat/Unsat Only.
Special Course Fee: No.

NB 475 Mentored Research in Neuroscience Credits: 3 (0-6-1)
Course Description: Mentored research with final written report required.
Prerequisites: CHEM 344, may be taken concurrently and LIFE 212.
Registration Information: May be taken twice for a maximum of 6 credits. Maximum of 12 credits toward degree for any combination of NB 475, NB 487, NB 495, NB 496.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Traditional.
Special Course Fee: No.

NB 487 Internship in Neuroscience Credits: Var[1-12]
Course Description: Work experience with an approved preceptor outside of CSU.
Prerequisites: CHEM 344 and LIFE 212.
Registration Information: Approval by undergraduate program director of preceptor and project. Maximum of 12 credits toward degree for any combination of NB 475, NB 487, NB 495, NB 496.
Terms Offered: Fall, Spring, Summer.
Grade Mode: S/U Sat/Unsat Only.
Special Course Fee: No.

NB 493 Senior Seminar Credit: 1 (0-0-1)
Course Description: Topics of current interest in neuroscience.
Prerequisite: None.
Registration Information: Senior standing.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

NB 495 Independent Study Credits: Var[1-4]
Course Description: Instructor mentored projects performed independently.
Prerequisite: None.
Registration Information: Written consent of Neuroscience undergraduate program director. Maximum of 12 credits toward degree for any combination of NB 475, NB 487, NB 495, NB 496.
Terms Offered: Fall, Spring, Summer.
Grade Mode: S/U Sat/Unsat Only.
Special Course Fee: No.

NB 496 Group Study in Neuroscience Credits: Var[1-4]
Course Description: Faculty-directed exploration of areas of special interest in neuroscience.
Prerequisite: None.
Registration Information: Written consent of Neuroscience undergraduate program director. Maximum of 12 credits toward degree for any combination of NB 475, NB 487, NB 495, NB 496.
Terms Offered: Fall, Spring, Summer.
Grade Mode: S/U Sat/Unsat Only.
Special Course Fee: No.

NB 499 Senior Thesis Credits: 3 (0-0-3)
Course Description: Interpreting research results (experiential or from the literature) and writing a thesis; oral presentation required; supervised by a faculty mentor.
Prerequisite: NB 399.
Registration Information: Senior standing in the Neuroscience major.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Traditional.
Special Course Fee: No.

NB 500 Readings in Cellular Neurobiology Credit: 1 (0-0-1)
Course Description: Membrane properties of nerve and muscle; molecular mechanisms of synaptic function; neuromuscular units.
Prerequisites: (BZ 100 to 481 - at least 1 course or BIO 100 to 481 - at least 1 course or LIFE 100 to 481 - at least 1 course) and (BZ 100 to 481 - at least 1 course and PH 100 to 481 - at least 1 course) and (MATH 141 or MATH 155 or MATH 160 to 161 - at least 1 course or MATH 255 or MATH 261) and (NB 501, may be taken concurrently or BMS 500, may be taken concurrently).
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

NB 501 Cellular and Molecular Neurophysiology Credits: 2 (2-0-0)
Course Description: Membrane properties of nerve and muscle; molecular mechanisms of synaptic function; neuromuscular units.
Prerequisites: (BZ 100 to 481 - at least 1 course or BIO 100 to 481 - at least 1 course or LIFE 100 to 481 - at least 1 course) and (BZ 100 to 481 - at least 1 course and PH 100 to 481) and (MATH 141 or MATH 155 or MATH 160 to 161 - at least 1 course or MATH 255 or MATH 261).
Registration Information: Credit not allowed for both NB 501 and BMS 500.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.
NB 502  Techniques in Molecular & Cellular Biology  Credits: 2 (1-3-0)
Also Offered As: CM 502.
Course Description: Current methods in molecular and cellular neurobiology.
Prerequisite: None.
Registration Information: Written consent of instructor required.
Must register for lecture and laboratory. Credit not allowed for both NB 502 and CM 502.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

NB 503 Developmental Neurobiology  Credits: 3 (3-0-0)
Also Offered As: BMS 503.
Course Description: Molecular mechanisms involved in development of nervous system including differentiation, growth, pathfinding, and synaptogenesis.
Prerequisites: (BIO 100 to 481 - at least 1 course or BZ 100 to 481 - at least 1 course or LIF 100 to 481 - at least 1 course) and (BC 100 to 481 - at least 1 course or PH 100 to 481 - at least 1 course) and (MATH 141 or MATH 155 or MATH 160 to 161 - at least 1 course or MATH 255 or MATH 261).
Registration Information: Credit not allowed for both NB 503 and BMS 503.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

NB 505 Neuronal Circuits, Systems and Behavior  Credits: 3 (3-0-0)
Also Offered As: BMS 505.
Course Description: Anatomical and physiological organization of the nervous system.
Prerequisite: BMS 325 or BMS 500 or NB 501.
Registration Information: Credit not allowed for both NB 505 and BMS 505.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

NB 586 Practicum-Techniques in Neuroscience II  Credit: 1 (0-2-0)
Course Description: Current research projects in the laboratories of neuroscience faculty.
Prerequisites: NB 501 and NB 502.
Term Offered: Spring.
Grade Mode: Instructor Option.
Special Course Fee: No.

NB 600 Advanced Psychology-Sensation and Perception  Credits: 3 (3-0-0)
Also Offered As: PSY 600D.
Course Description: Neural mechanisms of human perception; color and depth perception, pitch, loudness, and the effects of aging.
Prerequisites: PSY 456 and PSY 100 to 799 - at least 15 credits.
Registration Information: Credit not allowed for both NB 600 and PSY 600D.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

NB 650 Computer Analysis of Neuronal Proteins  Credit: 1 (1-0-0)
Course Description: Theory and practice of using computers to study proteins.
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Term Offered: Spring (odd years).
Grade Mode: Traditional.
Special Course Fee: No.

NB 750 Physiology of Ion Channels  Credits: 2 (2-0-0)
Course Description: Physiological and structural analysis of membrane ion channels.
Prerequisite: BMS 500.
Restriction: Must be a: Graduate, Professional.
Registration Information: Written consent of instructor required.
Term Offered: Spring (odd years).
Grade Mode: Traditional.
Special Course Fee: No.

NB 771 Writing, Submitting, and Reviewing Grants  Credit: 1 (1-0-0)
Course Description: Preparation of NRSA fellowship proposals; proposal review; possible submission to NIH for funding.
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

NB 793 Neuroscience Seminar  Credit: 1 (0-0-1)
Course Description: 
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Instructor Option.
Special Course Fee: No.

NB 795 Independent Study  Credits: Var[1-18]
Course Description: 
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Instructor Option.
Special Course Fee: No.

NB 796A Group Study: Ion Channels  Credits: Var[1-18]
Course Description: 
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Instructor Option.
Special Course Fee: No.

NB 796B Group Study: Neuronal Growth and Regeneration  Credits: Var[1-18]
Course Description: 
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Instructor Option.
Special Course Fee: No.
NB 796C  Group Study: Topics in Neuroscience  Credits: Var[1-4]
**Course Description:** Faculty-directed exploration of areas of special interest in neuroscience.
**Prerequisite:** None.
**Restriction:** Must be a: Graduate, Professional.
**Registration Information:** Written consent of instructor. May not be taken concurrently with BMS 796A.
**Terms Offered:** Fall, Spring.
**Grade Mode:** Instructor Option.
**Special Course Fee:** No.

NB 796D  Group Study: Seizures and Epilepsy  Credits: Var[1-18]
**Course Description:**
**Prerequisite:** None.
**Restriction:** Must be a: Graduate, Professional.
**Terms Offered:** Fall, Spring.
**Grade Mode:** Instructor Option.
**Special Course Fee:** No.

NB 796E  Group Study: Neuroendocrine Mechanisms  Credits: Var[1-18]
**Course Description:**
**Prerequisite:** None.
**Restriction:** Must be a: Graduate, Professional.
**Terms Offered:** Fall, Spring.
**Grade Mode:** Instructor Option.
**Special Course Fee:** No.