BCB 214 — Molecular Biology (3 units)
Course Description: Investigation of the basic cellular processes in prokaryotes and eukaryotes that govern the central dogma of molecular biology (DNA-RNA-protein).
Prerequisite(s): BCB 211; or the equivalent, or consent of instructor.
Learning Activities: Lecture 3 hour(s).
Enrollment Restriction(s): Pass One restricted to graduate students.
Credit Limitation(s): No credit for students that have taken BCB 221C.
Grade Mode: Letter.

BCB 215 — Graduate Reading Course (2 units)
Course Description: Development of critical reading skills through study of major paradigm advances in specialized fields of biochemistry, molecular, cell, and developmental biology. Emphasis on active learning and student participation. Guided analysis of literature and major advances in field of study.
Prerequisite(s): Graduate standing or consent of instructor.
Learning Activities: Discussion 10 hour(s).
Enrollment Restriction(s): Restricted to graduate students.
Repeat Credit: May be repeated 2 time(s) when topic differs.
Grade Mode: Letter.

BCB 220L — Advanced Biochemistry Laboratory Rotations (5 units)
Course Description: Two five-week assignments in BMCDB research laboratories. Individual research problems with emphasis on methodological/procedural experience, experimental design, proposal writing and oral communication of results.
Prerequisite(s): BCB 210; BCB 211 (can be concurrent); BCB 120L or the equivalent.
Learning Activities: Laboratory 15 hour(s).
Enrollment Restriction(s): Open to graduate students.
Repeat Credit: May be repeated 2 time(s).
Grade Mode: Letter.

BCB 225 — Molecular Mechanisms in Pattern Formation & Development (3 units)
Course Description: Genetic and molecular analysis of mechanisms that control animal development after fertilization. Establishment of embryonic axes, cell fate and embryonic pattern; induction, apoptosis, tissue patterning. Critical reading of current literature in C.elegans, Drosophila, and mouse genetic model systems.
Prerequisite(s): Graduate standing or consent of instructor; introductory background in developmental biology and/or genetics recommended.
Learning Activities: Lecture 3 hour(s).
Grade Mode: Letter.
BCB 256 — Cell & Molecular Biology of Cancer (3 units)
Course Description: Analysis of the pathologic alterations of cancer cells and therapeutic opportunities; with emphasis on animal models, tumor immunotherapy, stress response, metabolism, epigenetics, microRNAs and non-coding RNAs, and microbiota and inflammation.
Prerequisite(s): BCB 210; BCB 212; BCB 213; BCB 214.
Learning Activities: Lecture 1.50 hour(s), Seminar 1.50 hour(s).
Grade Mode: Letter.

BCB 257 — Cell Proliferation & Cancer Genes (3 units)
Course Description: Genetic and molecular alterations underlying the conversion of normal cells to cancers, emphasizing regulatory mechanisms and pathways. Critical reading of the current literature and development of experimental approaches.
Prerequisite(s): BCB 221C BCB 221D or equivalent courses.
Learning Activities: Lecture 1.50 hour(s), Seminar 1.50 hour(s).
Grade Mode: Letter.

BCB 290 — Seminar (1 unit)
Course Description: Presentation and discussion of faculty and graduate-student research.
Prerequisite(s): Consent of instructor and/or graduate standing.
Learning Activities: Seminar 1 hour(s).
Grade Mode: Satisfactory/Unsatisfactory only.

BCB 298 — Group Study (1-5 units)
Course Description: Group study.
Prerequisite(s): Consent of instructor.
Learning Activities: Variable 1-5 hour(s).
Grade Mode: Satisfactory/Unsatisfactory only.

BCB 299 — Research (1-12 units)
Course Description: Research.
Prerequisite(s): Consent of instructor.
Learning Activities: Variable.
Grade Mode: Satisfactory/Unsatisfactory only.

BCB 396 — Methods of Teaching (1 unit)
Course Description: Teaching assistant training practicum.
Prerequisite(s): Consent of instructor, graduate standing.
Learning Activities: Discussion 1 hour(s).
Grade Mode: Satisfactory/Unsatisfactory only.