Biology (BIOL)

BIOL 190. Special Topics. 1-12 Credits.

BIOL 192. Independent Study. 12 Credits.

BIOL 199. Independent Study. 1-12 Credits.

BIOL 290. Special Topics. 1-12 Credits.

BIOL 292. Independent Study. 1-12 Credits.

BIOL 391. Spec Topic. 1-12 Credits.

BIOL 399. Independent Study. 1-12 Credits.

BIOL 425. Methods of Tchng Sec Science. 3 Credits.
This course is a study of the practical and hands-on approaches that illustrate the techniques and materials for teaching at the secondary level in physical and biological sciences. Prerequisites include: Level I Admission to Teacher Education, EDU 380 and EDU 383. Co-requisite: EDU 395 Field Experience: Grades 9-12. If this class is taken at the 500 level, it is a graduate course and expectations for student performance are at an advanced level. Evaluation of course requirements is more rigorous than at the lower division section of this course.

BIOL 490. Special Topics. 12 Credits.

BIOL 492. Independent Study. 1-12 Credits.

BIOL 506. Molecular Biology Techniques. 3 Credits.
Introduction to such techniques of molecular biology as electrophoresis and chromatography as these methodologies are employed in the fields of cytology, molecular genetics, and physiology. Graduate credit requirements are described in the course syllabus. This course does meet the laboratory science requirement.

BIOL 507. Freshwater Biology. 3 Credits.
This course will demonstrate and provide an opportunity for students to develop skills in selected techniques used in the examination, identification and classification of a wide variety of the freshwater organisms that live in Montana's aquatic systems. Extensive laboratory work and field trips are required. Graduate credit requirements are described in the course syllabus. Prerequisite: BIOB 160 or BIOB 101 & 102 or approval of instructor. This course does meet the laboratory science requirement.

BIOL 508. Flwrng Plnts of the Plns & Mtn. 3 Credits.
Study of flowering plants found in prairie, foothill, mountain, reparian, and aquatic habitats. Methods of collection, general identification, and preservation of a series of plant specimens, including development of a herbarium, are included. Graduate credit requirements are described in the syllabus. This course does meet the laboratory science requirement.

BIOL 515. Ecological Methods. 3 Credits.
Study of methodologies used by ecologists to examine the environment. Laboratory and field procedures are stressed, together with review of associated ecological concepts. Graduate credit requirements are described in the syllabus. Prerequisite: Basic ecology course. This course does meet the laboratory science requirement.

BIOL 525. Methods of Teaching Science. 3 Credits.

BIOL 560. Advanced Microbiology. 3 Credits.

BIOL 568. Molecular Biology and Genetics. 4 Credits.
Structure and function of cells emphasizing molecular aspects at cellular, organelle, and physiological levels. Molecular composition of cell organelles, structure of eukaryotic genomes including chromosomes, recombination, gene structure and transcription, gene control during development, hormonal influence on gene expression, chemical synthesis, and factors influencing inheritance patterns. Emphasis is on animal cells. Includes lecture and laboratory hours. Graduate credit requirements are described in the syllabus. Prerequisite: BIOB 160 or equivalent; one semester college chemistry. This course does meet the laboratory science requirement.

BIOL 590. Special Topics. 12 Credits.

BIOL 599. Independent Study. 1-12 Credits.

BIOL 635. Advanced Zoology. 3 Credits.
Characteristics, classification, identification, life history, and ecological distribution of North American mammals and freshwater fish. Laboratory hours are devoted largely to the recognition and identification of representative species. Prerequisite: Vertebrate Zoology course or equivalent. This course does meet the laboratory science requirement.

BIOL 690. Special Topics. 1-12 Credits.

BIOL 699. Independent Study. 1-12 Credits.