BIOLOGICAL SCIENCES (BIOL)

COURSES

Botany (BOT)

314 Systematic Botany 3
Principles of plant systematics as illustrated by study of variation within and relationship between selected families and orders of vascular plants. Prereq: BIOL 151, 151L.

315, 315L Genetics, Lab 3,1
See Plant Sciences for description.

372 Structure and Diversity of Plants and Fungi 4
Comparative survey of diversity in plants (Kingdom Plantae) and fungi (Kingdom Fungi), with emphasis on reproductive and vegetative morphology. Major groups and specific examples discussed in lecture will be given detailed study in the laboratory. Prereq: BIOL 150 or 151.

380 Plant Physiology 3
Broad coverage of plant growth and metabolism including water relations, mineral nutrition, photobiology, carbon fixation, metabolic processes, stress responses, developmental biology, and growth regulation. Prereq: BIOL 150.

380L Plant Physiology Lab 1
Optional laboratory course accompanying BOT 380. Molecular, biochemical, and physiological techniques will be used to address contemporary problems in plant physiology. Coreq: BOT 380

431/631 Intermediate Genetics 3
See Plant Sciences for description.

450/650 Range Plants 3
See Range Science for description.

452/652 Plant Structure 3
Study of the development and structure of cells, tissues, and organs of vascular plants. 2 lectures, 1 laboratory. F (even years)

460/660 Plant Ecology 3
Ecological structure, processes, and patterns observed with plant communities and populations as influenced by environmental
conditions. Illustrations provided with local fieldwork. Prereq: BIOL 151, 151L. Cross-listed with RNG.

471/671 Phycology 3
Identification, systematics, evolution, ecology, life histories, physiology, cytology, and culture of algae. Prereq: BIOL 151, 151L.

472/672 Lichenology 3
Biology, ecology, and systematics of lichen fungi. Prereq: BIOL 151, 151L.

716 Agrostology 3
See Range Science for description.

717 Aquatic Vascular Plants 2
See Range Science for description.

720 Advanced Cell Biology 3
In-depth survey of cell biology, including studies of membranes, secretion cytoskeleton, cellular movement organelles, and gene regulation. Prereq: BIOC 702.

762 Environment and Adaptation 3
Environmental factors and responses evidenced with lifehistory patterns, genetic variation, population dynamics, species-interactions, and physiological processes. Prereq: BIOL 364.
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764 Ecological Processes 3
Ecosystem dynamics (short-term, successional, evolutionary), component interactions, ecological energetics, and biogeochemical transfers, with consideration of anthropogenic aspects. Historical and theoretical viewpoints included. Prereq: BIOL 364.

780 Plant Metabolism and Plant Stress Physiology 3
A detailed study of the dynamics, compartmentation, and interactions among metabolic processes in plants and the changes that occur in response to various biotic and abiotic stresses. Prereq: BOT 380 or BIOC 460.

782 Regulation of Plant Growth 4
Role of hormones, water, and mineral elements in plant growth. Ion and water absorption and translocation. Hormone dynamics. Emphasis on recent molecular studies of hormonal regulation. Prereq: BOT 380, BIOC 460.