

# BIOLOGY - SYSTEMS ECOLOGY (BIOS)

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**BIOS 532 - Ecosystem Ecology. 4 Credits.**

Offered autumn every other year. Prereq. CHMY 141N or the equivalent. Coreq. CHMY 143N and BCH 111. This course includes the fundamentals of an ecosystem approach to ecological research by emphasizing relationships among physical, chemical, and biotic elements of interactive systems. It will provide a fundamental basis for more advanced Systems Ecology courses (e.g., Limnology, Integrated Systems Ecology, Landscape Genetics, etc.). Level: Undergraduate-Graduate

**BIOS 534 - Integrated Systems Ecology. 3 Credits.**

Offered spring semester alternate years. Principles, theories and empirical studies that describe the complex attributes and processes of coupled natural and human systems. Landscape, climate, economic and social change dynamics and processes emphasized. Flagship course of the UM-DBS Systems Ecology Program. Students strongly advised but not required to take BIOS 532 Fundamentals of Ecosystem Ecology prior to this course. Level: Undergraduate-Graduate

**BIOS 590 - Research. 1-15 Credits.**

(R-15) Requires consent of instructor. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**BIOS 591 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**BIOS 594 - Seminar. 1-6 Credits.**

Offered intermittently. Prereq. graduate standing. Presentations by student, faculty, and associates on issues and topics in their field. Level: Undergraduate-Graduate

**BIOS 599 - Thesis. 1-15 Credits.**

(R-15) Field and laboratory research on, and writing of, a student's masters thesis. Level: Undergraduate-Graduate

**BIOS 699 - Thesis. 1-10 Credits.**

(R-10) Field and laboratory research on, and writing of, a student's masters thesis. Level: Graduate