

GENETICS (GENET)

Courses primarily for graduate students, open to qualified undergraduates:

GENET 5390: Ethics and Biological Sciences

Credits: 2. Contact Hours: Lecture 2.

Introduction to Bioethics through case studies, discussion of contemporary work on central bioethics topics, and discussion of important emerging ethical issues associated with recent research or technological development. Issues covered will vary somewhat from year to year, but will include at least some of the following: ethics and responsible research practice, animal ethics and the use of animals in teaching and research, cloning, human reproductive and stem cell research, regulation of genetically modified crops and foods, plant biotechnology, gene patents. Students will be divided into groups to develop their own case study, to be presented in class at the end of the term. Offered on a satisfactory-fail basis only. (Typically Offered: Spring)

GENET 5900: Special Topics

Credits: 1-30. Repeatable.

Prereq: Instructor Permission for Course

Contact individual faculty for special projects or topics. Graded. (Typically Offered: Fall, Spring, Summer)

GENET 5910: Workshop in Genetics

Credits: 1. Contact Hours: Lecture 1.

Repeatable.

Prereq: Instructor Permission for Course

Current topics in genetics research. Lectures by off-campus experts. Students read background literature, attend preparatory seminars, attend all lectures, meet with lecturers. (Typically Offered: Fall)

Courses for graduate students:

GENET 6900: Graduate Student Seminar in Genetics

Credits: 1. Contact Hours: Lecture 1.

Repeatable.

Research presentations by students to improve their ability to: orally present scientific work in a clear and meaningful way, critically evaluate oral presentations, and give and receive constructive criticism. Students may enroll in one seminar per school year. (Typically Offered: Fall, Spring)

GENET 6910: Faculty Seminar in Genetics

Credits: 1. Contact Hours: Lecture 1.

Repeatable.

Faculty research seminars that introduce students to the variety of genetics research projects on campus and provide an opportunity for students to become engaged in the scientific presentation to the point where they can think critically and ask meaningful questions. (Typically Offered: Fall)

GENET 6920: Conceptual Foundations of Genetics

Credits: 1. Contact Hours: Lecture 1.

Landmark papers in the development of genetics concepts. Papers are presented and discussions led by students, guided and mentored by the instructors. Instructors provide a broad overview and history of the development of fundamental concepts in genetics. (Typically Offered: Fall)

GENET 6930: Entrepreneurship for Graduate Students in Science and Engineering

(Cross-listed with AGRON 6930/ BCB 6930/ ENGR 6930/ EE 6930/ ME 6930).

Credits: 1. Contact Hours: Lecture 3.

Repeatable, maximum of 2 credits.

Understanding key topics of starting a technology based company, from development of technology-led idea to early-stage entrepreneurial business. Concepts discussed include: entrepreneurship basics, starting a business, funding your business, protecting your technology/ business IP. Subject matter experts and successful, technology-based entrepreneurs will provide real world examples from their experience with entrepreneurship. Learn about the world class entrepreneurship ecosystem at ISU and Central Iowa. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

GENET 6970: Graduate Research Rotation

Credits: 1-30. Repeatable.

Prereq: Instructor Permission for Course

Graduate research projects performed under the supervision of selected faculty members in the graduate Genetics major. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring, Summer)

GENET 6990: Research

Credits: 1-30. Repeatable.

Prereq: Instructor Permission for Course

Research. (Typically Offered: Fall, Spring, Summer)