

# Genetics Courses (GENE)

## GENE Courses

This is a list of courses with the subject code GENE. For more information, see Genetics (Graduate College) in the catalog.

**GENE:4213 Bioinformatics 2,4 s.h.**

Overview of bioinformatics topics, including access to sequence data, pairwise and multiple sequence alignment algorithms, molecular phylogeny, microarray data analysis, protein analysis, proteomics and protein structure analysis; emphasis on each topic includes biological motivation, computational approach (practical and theoretical), and interpretation of output. Prerequisites: BMB:3120 or MICR:3170 or BIOL:2512 or BMB:3110. Recommendations: grade of B-plus or higher in BIOL:2512 or graduate standing. Same as BIOL:4213, IGPI:4213.

**GENE:6150 Genetic Analysis of Biological Systems 3 s.h.**

Genetic techniques and approaches for analysis of biological processes; comparison of strengths, weaknesses of a variety of experimental systems.

**GENE:6200 Current Topics in Genetics 1 s.h.**

Focus is on a broad topic of central importance to genetics and biology as a whole; invited speakers are distinguished researchers from institutions across the country and within the University of Iowa, their work grounded in genetics, and cover diverse topics using a wide range of genetic model systems and approaches; seminar series. Same as ACB:6200.

**GENE:6210 Seminars in Genetics 1 s.h.**

Attendance at weekly forum and presentation of research data to foster oral communication, presentation skills, and collaboration.

**GENE:6234 Basic Biostatistical Methods With Genetics Applications 1 s.h.**

Introduction to terminology, fundamental concepts, and methods of biostatistics as applied to genetic research; genetic investigation examples used to illustrate statistical approaches. Same as BIOS:6234.

**GENE:6280 Directed Study in Genetics arr.**

**GENE:7191 Human Molecular Genetics 3 s.h.**

Molecular genetic approaches to human disease; the human genome project, linkage analysis, candidate gene screening, special features of inbred populations, triplet repeat expansions, mitochondrial genetics, genetics of complex traits. Requirements: fundamental genetics and molecular biology.

**GENE:7301 Graduate Research in Genetics arr.**