MICROBIOLOGY (MIC)

College of Biological Sciences

Undergraduate-level Microbiology (MIC) courses are being discontinued & replaced by Microbiology & Molecular Genetics (MMG) (https://catalog.ucdavis.edu/courses-subject-code/mmg/) courses.
Graduate-level Microbiology (MIC) courses are being discontinued & replaced by Microbiology (MIB) (https://catalog.ucdavis.edu/courses-subject-code/mib/) courses.
For more information, contact your advisor.

MIC 010 — Natural History of Infectious Diseases (3 units)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Topics in the natural history of infectious diseases principally affecting humans. Introduction to infectious microbial agents, ecology, epidemiology, and induction of disease. Focus on diseases of a contemporary nature.
Learning Activities: Lecture 3 hour(s).
Credit Limitation(s): Not open for credit to students who have completed MIC 101, MIC 102, or MIC 104.
Grade Mode: Letter.
General Education: Science & Engineering (SE).

MIC 091 — Introduction to Research (1 unit)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Discussion of faculty research focusing on the biochemistry, genetics, and cell biology of microorganisms, along with ways undergraduates can participate in research projects of faculty members.
Prerequisite(s): BIS 002A; or equivalent.
Learning Activities: Seminar 1 hour(s).
Enrollment Restriction(s): Restricted to lower division standing.
Repeat Credit: May be repeated 3 time(s).
Grade Mode: Pass/No Pass only.
General Education: Science & Engineering (SE).

MIC 103L — Introductory Microbiology Laboratory (2 units)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Introduction to principles and laboratory methods employed in working with microorganisms. Designed for students requiring microbiology for professional school admission. May be taught abroad.
Prerequisite(s): MIC 102 C- or better; CHE 002B.
Learning Activities: Lecture 1 hour(s), Laboratory 3 hour(s).
Credit Limitation(s): Not open to students who completed MIC 101 before spring 2016, or who have completed MIC 102L or MIC 104L.
Grade Mode: Letter.

MIC 104L — General Microbiology Laboratory (3 units)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Principles and laboratory methods employed in working with microorganisms. Designed for students continuing in microbiology, genetics, or biochemistry.
Prerequisite(s): MIC 102 C or better; (CHE 008B or CHE 118B or CHE 129A); and consent of instructor.
Learning Activities: Lecture 1 hour(s), Laboratory 6 hour(s).
Enrollment Restriction(s): Students must complete a petition for consideration of enrollment; petition available on department of Microbiology and Molecular Genetics website.
Credit Limitation(s): Only 2 units of credit for students who completed MIC 101 before spring 2016, or who have completed MIC 103L; not open to students who have completed MIC 102L.
Grade Mode: Letter.
General Education: Science & Engineering (SE); Writing Experience (WE).

MIC 105 — Microbial Diversity (3 units)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Survey of the major groups of microorganisms emphasizing diversity of energy metabolism, morphology, evolution, and natural history.
Prerequisite(s): MIC 102 or MIC 104; BIS 101; BIS 103 or BIS 105 strongly recommended.
Learning Activities: Lecture 3 hour(s).
Grade Mode: Letter.
General Education: Science & Engineering (SE).

MIC 105L — Microbial Diversity Laboratory (3 units)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Classical enrichments for the isolation of metabolically diverse microbes; modern molecular methods for the identification of isolates; cultivation independent analysis of microbial communities from local environmental samples.
Prerequisite(s): (MIC 102 or MIC 104); (MIC 102L or MIC 104L); MIC 105 (can be concurrent).
Learning Activities: Lecture 1 hour(s), Laboratory 6 hour(s).
Grade Mode: Letter.
General Education: Science & Engineering (SE); Writing Experience (WE).

MIC 191 — Introduction to Research for Advanced Undergraduates (1 unit)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Discussion of faculty research focusing on the biochemistry, genetics, and cell biology of microorganisms, along with ways undergraduates can participate in research projects of faculty members.
Prerequisite(s): BIS 002A; or equivalent.
Learning Activities: Seminar 1 hour(s).
Enrollment Restriction(s): Restricted to upper division standing.
Repeat Credit: May be repeated 3 time(s).
Grade Mode: Pass/No Pass only.
General Education: Science & Engineering (SE).

MIC 194H — Microbiology Honors Research (2 units)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Continuation of an individual microbiological research project culminating in writing of a senior thesis under a faculty director.
Prerequisite(s): Senior standing; eligibility for college honors; completion of 6 units of MIC 199; consent of section.
Learning Activities: Independent Study 6 hour(s).
Grade Mode: Pass/No Pass only.

MIC 200B — Advanced Bacteriology (3 units)

Course Description: Intended for first-year graduate students in Microbiology and closely-related fields. Advanced topics in phylogeny, physiology and diversity of bacteria.
Prerequisite(s): MIB 200A.
Learning Activities: Lecture 3 hour(s).
Grade Mode: Letter.

MIC 215 — Recombinant DNA (3 units)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Application of recombinant DNA technology to modern problems in biology, biochemistry, and genetics, emphasizing molecular cloning strategies, choice of vectors, preparation of insert DNA, and selection procedures.
Prerequisite(s): (BIS 101 or BIS 101V); BIS 102; BIS 103; or the equivalent.
Learning Activities: Lecture 3 hour(s).
Grade Mode: Letter.

MIC 263 — Principles of Protein-Nucleic Acid Interactions (3 units)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Physical basis of protein-nucleic acid interaction. Topics include nucleic acid recognition by proteins, thermodynamics of protein-nucleic acid stability, and kinetics of binding process for both non-specific and sequence-specific nucleic acid binding proteins. Emphasis on systems that represent paradigms in protein-nucleic acid interactions.
Prerequisite(s): Advanced graduate standing and completion of one year of basic graduate course work in biochemistry, biophysics, chemistry, genetics, microbiology, or molecular biology.
Learning Activities: Lecture 3 hour(s).
Grade Mode: Letter.

MIC 274 — Seminar in Genetic Recombination (1 unit)

Course Description: Biochemical and genetic aspects of genetic recombination in prokaryotes and eukaryotes. Mechanisms of recombination and biochemical and genetic characteristics of recombination proteins. Proteins include DNA strand exchange, DNA helicases, and Holliday junction resolving proteins.
Prerequisite(s): Consent of instructor; graduate standing.
Learning Activities: Seminar 1 hour(s).
Repeat Credit: May be repeated.
Grade Mode: Satisfactory/Unsatisfactory only.

MIC 275 — Seminar in DNA Repair & Recombination (1 unit)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Review and discussion of current research and literature in DNA repair and recombination with presentations by individual students and invited speakers.
Prerequisite(s): Consent of instructor; graduate standing in Microbiology or closely-related field.
Learning Activities: Seminar 1 hour(s).
Repeat Credit: May be repeated.
Grade Mode: Satisfactory/Unsatisfactory only.

MIC 276 — Advanced Concepts in DNA Metabolism (3 units)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: DNA damage checkpoints, homologous recombination, and meiotic recombination. An advanced treatment of the clinical and current literature to discuss emerging principles and current models in these research areas.
Prerequisite(s): MCB 221C or GGG 201C or equivalent course recommended.
Learning Activities: Lecture 3 hour(s).
Grade Mode: Letter.

MIC 290C — Advanced Research Conference (1 unit)

Course Description: Presentation and critical discussion of staff research activities. Designed for advanced graduate students.
Prerequisite(s): Graduate standing and/or consent of instructor.
Learning Activities: Discussion 1 hour(s), Conference 1 hour(s).
Repeat Credit: May be repeated.
Grade Mode: Satisfactory/Unsatisfactory only.

MIC 291 — Selected Topics in Microbiology (1 unit)

Starting Fall Quarter 2026, this course is no longer offered.
Course Description: Current progress in microbiology and cellular and molecular biology.
Prerequisite(s): Consent of instructor; graduate standing.
Learning Activities: Seminar 1 hour(s).
Repeat Credit: May be repeated.
Grade Mode: Satisfactory/Unsatisfactory only.

MIC 292 — Seminar in Bacterial Physiology & Genetics (1 unit)

Course Description: Review and discussion of current research and literature in bacterial physiology and genetics, with presentations by individual students.
Prerequisite(s): Consent of instructor; graduate standing in Microbiology or closely-related field.
Learning Activities: Seminar 1 hour(s).
Grade Mode: Satisfactory/Unsatisfactory only.

MIC 298 — Group Study (1-5 units)

Course Description: Group study.
Prerequisite(s): Consent of instructor.
Learning Activities: Variable.
Grade Mode: Satisfactory/Unsatisfactory only.

MIC 299 — Research (1-12 units)

Course Description: Research.
Learning Activities: Variable.
Grade Mode: Satisfactory/Unsatisfactory only.

MIC 396 — Teaching Assistant Training Practicum (1-4 units)

Course Description: Teaching assistant training.
Prerequisite(s): Graduate standing.
Learning Activities: Variable.
Repeat Credit: May be repeated.
Grade Mode: Pass/No Pass only.