

MICROBIOLOGY (MBIO)

MBIO 7010 Graduate Seminar in Microbiology 1 3 cr

Seminars covering areas of interest to the faculty and students in the graduate Microbiology program, and current developments in the broad field of microbiology (including microbial physiology, environmental microbiology, virology, pathogenicity, genetics, molecular biology, biochemistry, biotechnology, and cell culture). Open to all qualified students by permission of the Microbiology department head.

MBIO 7020 Graduate Seminar in Microbiology 2 3 cr

Seminars covering areas of interest to the faculty and students in the graduate Microbiology program, and current developments in the broad field of microbiology (including microbial physiology, environmental microbiology, virology, pathogenicity, genetics, molecular biology, biochemistry, biotechnology, and cell culture). Open to all qualified students by permission of the Microbiology department head.

MBIO 7030 Graduate Seminar in Microbiology 3 3 cr

Seminars covering areas of interest to the faculty and students in the graduate Microbiology program, and current developments in the broad field of microbiology (including microbial physiology, environmental microbiology, virology, pathogenicity, genetics, molecular biology, biochemistry, biotechnology, and cell culture). Open to all qualified students by permission of the Microbiology department head.

MBIO 7040 Graduate Microbiology 3 cr

Topics and current developments in the field of microbiology will be covered. A combined discussion, seminar and written exam format may be used. Inquire at the department for availability.

MBIO 7050 Environmental Microbiology 3 cr

Topics and current developments in the field of environmental microbiology will be covered. A combined lecture, discussion, assignment and seminar format may be used. Inquire at the department for availability.

MBIO 7060 Microbial Interactions 3 cr

Topics and current developments in the field of microbial interactions will be covered. A combined discussion, seminar and written exam format may be used. Inquire at the department for availability.

MBIO 7070 Bioprocessing 3 cr

This course allows students with a background in either biological sciences or engineering to gain an understanding of biochemical engineering processes used to enable important chemical conversions by biological systems. Topics include bioprocessing for production of biofuels, bioplastics, and biopharmaceuticals, upstream processing technologies, fermentation and bioreactor systems, and downstream processing for product recovery. These will be related to present or potential industrial applications. This course is also offered in the Department of Biosystems Engineering as BIOE 7180. MBIO 7070 cannot be held with BIOE 7180.

MBIO 7100 Advanced Concepts in Molecular Biology 3 cr

Recent advances in the molecular basis and control of gene activity; information transfer and molecular evolution. Inquire at the department for availability

MBIO 7160 Special Problems in Microbiology 3 cr

An assignment and conference course to be taken only through consultation with the head of the department. The topics will vary, depending upon student needs and interests, and will include specialized topics not available in regular course offerings.

MBIO 7200 Macromolecular Structure Analysis 3 cr

This course introduces the principles of X-ray crystallography as applied to the study of protein and nucleic acid structure. Protein crystallization and practical aspects of X-ray diffraction, structure determination and analysis are covered. This course is suitable for students with a background in microbiology, biochemistry or chemistry. Inquire at the department for availability.