IM - IMMUNOLOGY AND MICROBIOLOGY

IM 7010 Fundamentals of Immunology Cr. 2
Cellular-molecular and systemic functions, and diseases of the immune system. Offered Winter.
Restriction(s): Enrollment is limited to Graduate level students.
Equivalent: IBS 7090

IM 7020 Fundamentals of Microbiology Cr. 2
Molecular Mechanisms of Bacterial Pathogenesis uses bacterial pathogens as paradigms to illustrate the disease process. Molecular mechanisms of bacterial colonization, evasion of the host immune response, inflammation, invasion and tissue damage by exotoxin secretion are key learning objectives. Host and pathogen interaction and the role of the microbiome in human health are taught. Antimicrobial resistance is covered at the level of development and transmission. Offered Winter.
Restriction(s): Enrollment is limited to Graduate level students.

IM 7030 Molecular Biology of Viruses Cr. 2
Basic principles of virology including virus host interactions and the molecular biology of virus multiplication and genetics. Offered Winter.
Prerequisite: BMB 7010 with a minimum grade of B or MGG 7010 with a minimum grade of B
Restriction(s): Enrollment is limited to Graduate level students.

IM 7040 Fundamentals of Research Cr. 2
Lecture/discussion of practical aspects of professional scientific research. Offered Fall.
Restriction(s): Enrollment is limited to Graduate or Medical level students; enrollment limited to students in the School of Medicine.

IM 7060 Laboratory Rotation Cr. 1-4
Students complete 3-4 week rotations in three different research laboratories prior to choosing a thesis research lab. Offered Fall, Winter.
Restriction(s): Enrollment is limited to Graduate level students; enrollment is limited to students in the Department of Biochem,Microbio & Immunology.
Repeatable for 4 Credits

IM 7140 Critical Thinking in Science Cr. 1
The objective of the course is to provide students with opportunities to practice explicit application of critical thinking skills for the analysis of scientific literature through the deliberate practice of reading, writing, and small group discussion. Strong inference and the principles of logic will be used to illustrate how doubt-driven motivation can be applied to a research project without a priori thinking that can result in confirmation bias. Offered Fall.
Restriction(s): Enrollment is limited to Graduate level students.

IM 7450 Current Trends in Immunology Cr. 2
Lectures and discussions on current literature and research problems. Offered Intermittently.
Restriction(s): Enrollment is limited to Graduate level students.

IM 7520 Molecular Mechanisms of Bacterial Pathogenesis Cr. 2
Molecular Mechanisms of Bacterial Pathogenesis uses bacterial pathogens as paradigms to illustrate the disease process. Molecular mechanisms of bacterial colonization, evasion of the host immune response, inflammation, invasion and tissue damage by exotoxin secretion are key learning objectives. Host and pathogen interaction and the role of the microbiome in human health are taught. Antimicrobial resistance is covered at the level of development and transmission. Offered Winter.
Restriction(s): Enrollment is limited to students with a major in Immunology and Microbiology; enrollment is limited to Graduate level students.

IM 7530 Advanced Microbiology Research Cr. 1-4
Independent study between a BMI student and an advisor. Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students; enrollment is limited to students in the Department of Biochem,Microbio & Immunology.
Repeatable for 4 Credits

IM 7650 Current Trends in Host-Microbiome Interactions Cr. 2
We are each populated by diverse microbial communities that affect our physiological and immunological profiles and ultimately our likelihood of experiencing health or disease. This course will explore the literature related to all aspects of host-microbiome interactions, and will do so from mechanistic, ontogenetic, functional, and phylogentic perspectives. Offered Intermittently.
Restriction(s): Enrollment is limited to Graduate level students.

IM 7890 Seminar Cr. 1
Weekly BMI seminar series. Offered Fall, Winter.
Restriction(s): Enrollment is limited to students with a major in Immunology and Microbiology; enrollment is limited to Graduate level students.

IM 7996 Research Cr. 1-9
Lab research. Offered Every Term.
Restriction(s): Enrollment is limited to students with a major in Immunology and Microbiology; enrollment is limited to Graduate level students.
Repeatable for 30 Credits

IM 8999 Master's Thesis Research and Direction Cr. 1-8
Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Candidate Masters; enrollment is limited to Graduate level students.
Repeatable for 8 Credits

IM 9990 Pre-Doctoral Candidacy Research Cr. 1-8
Research in preparation for doctoral dissertation. Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students.
Repeatable for 12 Credits

IM 9991 Doctoral Candidate Status I: Dissertation Research and Direction Cr. 3-9
Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students.
Repeatable for 9 Credits

IM 9992 Doctoral Candidate Status II: Dissertation Research and Direction Cr. 1-18
Offered Every Term.
Prerequisite: IM 9991 with a minimum grade of S
Restriction(s): Enrollment is limited to Graduate level students.
Repeatable for 18 Credits

IM 9993 Doctoral Candidate Status III: Dissertation Research and Direction Cr. 7.5
Offered Every Term.
Prerequisite: IM 9992 with a minimum grade of S
Restriction(s): Enrollment is limited to Graduate level students.

IM 9994 Doctoral Candidate Status IV: Dissertation Research and Direction Cr. 7.5
Offered Every Term.
Prerequisite: IM 9993 with a minimum grade of S
Restriction(s): Enrollment is limited to Graduate level students.

IM 9995 Candidate Maintenance Status: Doctoral Dissertation Research and Direction Cr. 0
Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students.
Repeatable for 0 Credits