IMMUNOLOGY (IMM)

IMM 5100 Basic Graduate Immunology (3 Credits)
H. Borges da Silva (Fall) – Structure, genetics, and function of immunoglobulins; biosynthesis of antibody; cellular regulation of immune response; tumor and transplantation immunology; immune response to infectious agents; autoimmunity and immune deficiencies. Course previously listed as CORE 6200.
Grading: Standard Letter, Test-Out/Waivers

IMM 5200 Introduction to Flow Cytometry (1 Credit)
V. Shapiro (Summer) – This course will teach the basics of flow cytometry, including how a cytometer functions, designing a panel compensation, statistics, analysis, and interpretation. New technology including new fluorochromes and mass cytometry (CyTOF) are also discussed. No prerequisites are required. The course consists of 10 hours of lecture from RST videoconferenced to AZ and FL, plus 4 hours of hands-in/demonstration plus a virtual demonstration/analysis.
Grading: Sat / Unsat

IMM 6863 Current Topics in Immunology (1 Credit)
D. Billadeau (993: Fall, Winter, Spring, Summer) - Current literature on important areas of immunology. Critical review of methods, results, and findings. The course is offered in all four quarters. Register in fall term (1 cr./yr.). IMM degree candidates are given preference for this course.
Grading: Sat / Unsat

IMM 6865 Regenerative T Cell Immunotherapy and Cellular Engineering (3 Credits)
S. Kenderian (Spring) – This course is a week-long instructional class involving internal and external guest speakers from multiple different fields in cancer immunotherapy. It covers commonly used and studied cancer immunotherapy tools, including cell therapy, nucleic acid-based cancer vaccines, therapeutic monoclonal antibodies, etc.. Students will be exposed to the latest ongoing research in cancer immunotherapy and will have opportunities to discuss unsolved challenges and potential solutions in the fields with the invited scientists. Students will be designing and presenting their own final projects as small groups and will be graded by course director and teaching assistant. By the end of the course, students are expected to understand common platforms of cancer immunotherapies and corresponding advantages and disadvantages. We are inviting more external speakers and expanding the topics.
Grading: Sat / Unsat

IMM 6867 Colloquium in Research (1 Credit)
K. Knoop (Winter) – This course offers instruction on how to present and discuss research in the broad area of clinical and translational immunology. Participants will prepare both hour-long journal club-style presentations and brief conference-style research presentations. Topics will include bacterial infections, microbial influences on immunity, mucosal immunology, and mechanisms and treatment of immune-mediated diseases affecting barrier surfaces.
Prerequisites: (IMM 5100 (may be taken concurrently), or CORE 6200)
Grading: Standard Letter

IMM 6878 Tutorial in Innate Immunity (2 Credits)
S. Oh, A. Ting (Odd: Winter) – Course is designed to provide an in-depth understanding of the role of innate immunity in health and disease. The final grade will be based on class participation and the grade achieved on the comprehensive final exam.
Prerequisites: (IMM 5100, or CORE 6200, or FNDN 7151)
Grading: Standard Letter

IMM 6879 Tutorial in Adaptive Immunity (2 Credits)
K. Hirohito, L. Rogers (Even: Spring) – This course is designed to provide an in-depth understanding of the role of adaptive immunity in health and disease. The final grade will be based on class participation and the grade achieved on the comprehensive final exam.
Prerequisites: (IMM 5100, or FNDN 7151)
Grading: Standard Letter

IMM 6880 Tutorial in Tissue Immunity (2 Credits)
A. Johnson, K. Knoop (Odd: Spring) – Course is designed to provide an in-depth understanding of the how the the immune system communicates and works in the body tissues in health and disease.
Prerequisites: (IMM 5100, or FNDN 7151)
Grading: Standard Letter

IMM 6882 Tutorial in Bridging Innate and Adaptive Immunity (2 Credits)
M. Curtis, W.K. Ip (Odd: Winter) – Course is designed to provide an in-depth understanding of the how the innate and adaptive components of the immune system communicate in health and disease. The final grade will be based on class participation and the grade achieved on the comprehensive final exam.
Prerequisites: (IMM 5100, or FNDN 7151)
Grading: Standard Letter

IMM 6884 Tutorial in Generation and Function of T Cells (2 Credits)
V. Shapiro, F. Gounari (Even: Winter) – The course is designed to provide an in-depth understanding of the generation and function of T lymphocytes in health and disease. The final grade will be based on class participation and the grade achieved on the comprehensive final exam.
Prerequisites: IMM 5100, or FNDN 7151, or CORE 6200
Grading: Standard Letter

IMM 6885 Tutorial in Generation and Function of B Cells (2 Credits)
K. Medina, A. Novak (Even: Winter) – This course is designed to provide an in depth understanding of the generation and function of B lymphocytes in health and disease. The final grade will be based on class participation and the grade achieved on the comprehensive final exam. The prerequisites are successful completion of Immunology IMM 5100 or Mayo Medical School, Block V, Normal Function, Immunology course. Offered in first half of winter quarter during even years only.
Prerequisites: (IMM 5100, or CORE 6200, or FNDN 7151)
Grading: Standard Letter