

IMMUNOLOGY (IMMU)

IMMU 6110 - Introduction to Bioinformatics (3 Credits)

An intensive course aimed to introduce basic theory and concepts of commonly used bioinformatics workflows encountered in immunology and microbiology NGS data sets. This course is also designed as a workshop; all workflows will be directly applied to pre-existing datasets. Pre-requisite: At least one semester of any R programming.

Grading Basis: Letter Grade

Restricted to IMMU, MICB, MICR, BSBT students

Typically Offered: Spring.

IMMU 6210 - Intensive Advanced Immunology (3 Credits)

During this intensive-style class, students will attend daily lectures and laboratories in Week 1, then complete a 2-week project with final presentations in Week 3. In Week 1, Students will be fully immersed from 8 am to 6 pm with reading/prep in the evenings. Pre-requisite: AGRAD

Grading Basis: Letter Grade

Typically Offered: Spring.

IMMU 7000 - Research in Progress (1 Credit)

Research in Progress weekly seminar talks for Immunology and Microbiology Graduate Students.

Grading Basis: Pass/Fail

Repeatable. Max Credits: 10.

Typically Offered: Fall, Spring.

IMMU 7530 - Introduction to Immunology (2 Credits)

This course is an introductory immunology course designed to provide students with an introduction to the field of immunology. This class is intended to introduce students who already have some background in general biology and cell biology to the study of the immune system.

Grading Basis: Letter Grade

Typically Offered: Fall, Spring.

IMMU 7602 - Special Topics in Cancer Immunology (1 Credit)

This interactive course aims to introduce important concepts, models and approaches in cancer immunology. The focuses are mechanisms relevant to the immune response in the context of cancer development and immunotherapy. Students are assessed via presentations, participation, and a paper.

Grading Basis: Letter Grade

A-GRAD Restricted to graduate students only.

Typically Offered: Spring.

IMMU 7603 - Special Topics-Immunologic Basis of Human Disease (1 Credit)

Perform translational studies, as they either test hypotheses established in mouse models or lead to new testable hypotheses that will advance understanding of pathogenesis of human disease. Greater understanding of disease pathogenesis will allow for development of new treatment options. Prereq: IMMU 7662.

Grading Basis: Letter Grade

Repeatable. Max Credits: 1.

A-GRAD Restricted to graduate students only.

Typically Offered: Spring.

IMMU 7604 - Special Topics in Signal Transduction in the Immune System (1 Credit)

In-depth course, designed primarily for immunology graduate students in their second year, who have completed IMMU 7602. The course covers selected topics (8 in all) encompassing a wide range of topics in signal transduction through receptors important in the immune system. Prereq: IMMU 7662.

Grading Basis: Letter Grade

A-GRAD Restricted to graduate students only.

Typically Offered: Fall.

IMMU 7605 - Workshop in Scientific Writing (1 Credit)

This workshop will consist of one session weekly for students to be critiqued on writing assignments designed to provide basic training in writing grant proposals and manuscripts.

Grading Basis: Letter Grade

Typically Offered: Spring.

IMMU 7607 - Science as a Profession (1 Credit)

This course discusses ethical issues, conflicts of interest, and regulations for working with humans or animals. It also includes instruction on writing papers and grants, giving effective presentations and advice on finding jobs in academia and industry.

Grading Basis: Letter Grade

A-GRAD Restricted to graduate students only.

Typically Offered: Fall.

IMMU 7608 - Immunology of Infection (1 Credit)

Students will discuss and present selections from the current literature on topics related to the interaction of the immune system with microbial causes of infectious diseases.

Grading Basis: Letter Grade

Typically Offered: Spring.

IMMU 7609 - Immunology of Autoimmune Diseases (1 Credit)

Following a brief introduction on autoimmune diseases by the instructor, the students will discuss and present assigned papers from the current literature on topics related to immune mechanisms and cell types leading to various autoimmune diseases.

Grading Basis: Letter Grade

Typically Offered: Spring.

IMMU 7611 - Omics Data Analysis (3 Credits)

The objective of this course will equip graduate students from immunology and microbiology program with the skills sets for understanding the basic terminology of data sciences and applying data sciences and computational approaches in their immunological and microbiological studies, utilizing R and FIJI Macro programming skills.

Prereq: An introductory background in statistics is recommended. One seminar in R programming or equivalent experience is required. The pass on the course Introduction to Bioinformatics is recommended.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

IMMU 7650 - Research in Immunology (1-5 Credits)

Research work in immunology. Prereq: Consent of Instructor.

Grading Basis: Letter Grade with IP

Repeatable. Max Credits: 99.

A-GRAD Restricted to graduate students only.

Typically Offered: Fall, Spring, Summer.

IMMU 7662 - Immunology (6 Credits)

This course covers the basic principles of the immune system. Included are discussions on (I) the innate and adaptive immune responses, (II) the molecular and cellular basis of immune specificity and (III) aspects of clinical immunology.

Grading Basis: Letter Grade

A-GRAD Restricted to graduate students only.

Typically Offered: Spring.

IMMU 8990 - Doctoral Thesis (1-10 Credits)

Doctoral thesis work in immunology. Prereq: Consent of Instructor.

Grading Basis: Letter Grade with IP

Repeatable. Max Credits: 10.

A-GRAD Restricted to graduate students only.

Additional Information: Report as Full Time.

Typically Offered: Fall, Spring, Summer.