Recommended Curriculum

Students need to register for a total of 10 Immunology credit hours. While this is the minimum number of credit hours required for students to receive an Immunology transcript designation, there is no restriction on a student registering for any number of course credits.

Required Courses
In addition to the IBGP core curriculum, for a student to receive the transcript designation Immunology, they must complete the following course:

**MVIMG 7010 Molecular and Cellular Immunology (3 credits).** Cellular and molecular mechanisms of immune response, cell recognition and communication, molecular biology of cell recognition structures, cytokines, and effector mechanisms.

Students must also register for credit in one elective from the following list:

**MVIMG 8845 History of Immunology (3 credits).** Understand immunology and pertinent research, students must understand its history so to appreciate where the field of immunology started, the progress and discoveries made. MVIMG 7010 is recommended but not required.

**MVIMG 8010 Selected Topics in Advanced Immunology (3 credits).** Students will gain significant insight into immunological concepts of infectious diseases, transplant, cancer, mucosal immunity, allergy and autoimmunity. Two or three topics discussed in depth, topics alternate yearly. Prereq: 7010.

**MVIMG/PATH 7847 Cellular Mechanisms and Pathogenesis of Inflammation (2 credits).** Inflammatory processes in the human host due to interaction with viruses, bacteria, parasites, foreign antigens, or physical trauma and new immunological therapeutic strategies being developed. Prereq: MVImg 701 or Microbiol 701, or permission of instructor.

Seminars and Journal Club
Students must register for at least one Immunology Seminar and one Immunology Journal Club for a total of 4 credit hours. The courses from which to choose are:

Seminars

**PATHOL 8850 Seminars in Pathology. (1 credit)**

**MVIMG 7931 Research in Molecular Virology, Immunology and Medical Genetics (1 credit).** Student Seminar in Molecular Virology, Immunology and Medical Genetics. Student and post-doctoral presentations of research.
MVIMG 8500 Advanced seminar topics related to molecular virology, immunology, pathogenesis or genetics. (1 credit).

IBGP 7991 Cancer Immunology: Research Seminar (1 credit). Students attend research presentations on cancer immunology given by faculty, students and postdoctoral fellows. Prereq: Grad standing, or permission of instructor. Repeatable to a maximum of 6 cr hrs.

IBGP 7980 Seminar in Pediatric Research (1 credit). Faculty and outside speakers will give presentations on research in biological mechanisms of pediatric disease. Prereq: Enrollment in IBGP, or permission of instructor. Repeatable to a maximum of 8 cr hrs.

Journal Clubs

IBGP 7890 Immunological Research of Pediatric Diseases (1 credit). Trainees will prepare and give presentations on current research on immunological mechanisms of pediatric diseases. Prereq: Enrollment in IBGP, and permission of instructor. Repeatable to a maximum of 2 cr hrs.

IBGP 7900 Cancer Immunology: Critical Journal Readings (1 credit). Faculty, students and postdoctoral fellows will give critical interpretations of research and journal readings on cancer immunology.

MVIMG 8142 Current Topics in Immunology Journal Club (1 credit). Journal club format course discussing immunology from a historical perspective, identifying critical discoveries that provide an understanding of how the immune system functions and how these findings influence our research methods and concepts today.

INTMED 8891.01 Seminar Allergy/Immunology (1 credit). Discussion of pertinent literature and research projects in various subspecialty areas with emphasis on basic science concepts. Au Sem. Repeatable.

Presentations
Students must present the findings of their original research during their last year in one of the following courses designed for student presentations (registration is not required):

IBGP 7950 Host-Pathogen Interactions: Research Seminar. Faculty, students and outside speakers will give research presentations on microbial-host interactions.

IBGP 797.02 Senior Seminar

IBGP 7992 Cancer Immunology: Research Seminar Presentation. Faculty, students and postdoctoral fellows will give research presentations on cancer immunology.

MVIMG 793.01 Research in Molecular Virology, Immunology and Medical Genetics

Dissertation Research
After selection of an advisor, students must register each quarter for dissertation research by registering for IBGP 8999.