

# Immunology

## Director

- Kevin L. Legge (Microbiology and Immunology/Pathology)

**Graduate degree:** PhD in immunology

**Faculty:** <https://immuno.grad.uiowa.edu/people/faculty>

**Website:** <https://immuno.grad.uiowa.edu/>

## Courses

## Immunology Courses

### IMMU:2040 Summer Undergraduate IDGP

#### Research

0 s.h.

### IMMU:6201 Graduate Immunology

3 s.h.

Immune cell ontogeny, activation, and function of T lymphocytes and B lymphocytes; innate immune effector mechanisms; major histocompatibility complex; antigen presentation; thymocyte positive and negative selection; signaling of T lymphocytes and B lymphocytes; emphasis on experimental methods for analysis of these processes and how they have led to current advanced concepts in immunology. Prerequisites: MICR:3147 or MICR:6247.

Requirements: for IMMU:6201—college biology, general chemistry, and introductory immunology courses; for MICR:6201—courses in college biology, genetics, general chemistry, and introductory immunology. Recommendations: for IMMU:6201—courses in biochemistry and genetics; for MICR:6201—biochemistry course. Same as MICR:6201.

### IMMU:6211 Immunology Seminar

1 s.h.

Requirements: immunology graduate standing.

### IMMU:6221 Rigor and Reproducibility in

#### Immunology

1 s.h.

Principles and concepts in rigor and reproducibility; rigorous experimental practices in immunology and study design including concepts in redundancy (e.g., replication, validation, generalization, perturbation, consistency), controls, authentication of key reagents and resources, biological variables, recognition of error, avoidance of logical traps, and intellectual honesty. Prerequisites: IMMU:6201.

### IMMU:6231 Research in Immunology

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Laboratory research. Requirements: immunology graduate standing.

### IMMU:6241 Writing a Scientific Proposal

2 s.h.

How to write a scientific proposal. Prerequisites: IMMU:6201. Requirements: enrollment in immunology graduate program.

### IMMU:6247 Graduate Immunology and Human Disease

4 s.h.

Important principles and key concepts in immunology with a focus on the involvement of the immune system in disease pathogenesis; overview of innate and adaptive immune systems and their functions at cellular and molecular levels; learning enhanced by case-based, small-group discussion and writing exercises. Same as MICR:6247.

### IMMU:7221 Advanced Topics in Immunology

3 s.h.

In-depth analysis of selected areas. Prerequisites: IMMU:6201 or MICR:6201. Same as MICR:7207.