

IMMUNOLOGY (IMM) – EMPLOYEE-PROFESSIONAL MASTERS

- Kay L. Medina, Ph.D., *Program Director*
- Kathryn Knoop., Ph.D., *Associate Program Director, MN*
- Henrique Borges da Silva, Ph.D. *Associate Program Director, AZ*

Application

Candidates must complete an Employee Master's Degree Application form. This form is available on the MCGSBS Master's Programs intranet site. Supporting documents include transcripts from previous colleges and three letters of recommendation - one preferred from your direct supervisor/manager.

Eligibility

Applicants must have a current Mayo Clinic appointment. Although more common for allied health staff, it is open to all employees. Enrollment is restricted to permanent Mayo employees and is available at all three sites: Arizona, Florida, and Rochester. Temporary roles are not eligible if you were hired with an appointment end date, e.g. visiting clinicians and research trainees are not eligible.

Applicants must have received a bachelor's degree from an accredited college or university, must have taken appropriate undergraduate science courses to adequately prepare for the Master's program, must have a minimum undergraduate grade point average that demonstrates a record of academic excellence. The employee's supervisor must endorse in writing the application of the employee and commit to allowing time to attend scheduled coursework.

Time Requirement

Time to completion can vary by student, but all requirements for the Master's degree must be completed within five years. The five-year period begins on the start date of the term the student is appointed to. Permanent Mayo employees whose Mayo employment terminates are required to notify MCGSBS; their MCGSBS appointments will also end.

Registration Requirement

At least 75% of the coursework for the Master's degree must be completed in MCGSBS.

Minimum Credit Requirements

Students must complete a minimum of 45 credits, including MGS 6000 Responsible Conduct of Research. Six of the credits in the track must be didactic credits. The selection of the courses to be used to meet these requirements will be determined by the student and the track program director.

Transfer Credits

A total of 9 didactic credits may be transferred into the Employee Master's Program. For more details, see the Credit Transfer Policy on the MCGSBS Policies and Procedures intranet site.

Course Requirements

A total of **45 credits** with maintenance of at least a 3.0 GPA are required for graduation.

Code	Title	Hours
MGS Course		
MGS 6000	Responsible Conduct of Research	1
MGS 6400	Master's Scholarly Review Article (Final Project)	6
Track Requirements		
IMM 5100	Basic Graduate Immunology	3
IMM 6862	Current Topics in Cell Activation and Signaling	1
IMM 6863	Current Topics in Immunology ¹	1
IMM 6878	Tutorial in Innate Immunity	2
IMM 6879	Tutorial in Adaptive Immunity	2
IMM 6880	Tutorial in Tissue Immunity	2
IMM 6882	Tutorial in Bridging Innate and Adaptive Immunity	2
IMM 6884	Tutorial in Generation and Function of T Cells	2
IMM 6885	Tutorial in Generation and Function of B Cells	2
Advanced Coursework		
	Credits can be selected from any field; with no more than nine credits in seminar or journal club style courses.	21
Total Hours		45

¹ Current Topics courses may be taken more than once

Students who are not currently enrolled in a degree program (including all employee master's students) must first obtain a signature from the Immunology program director before enrolling in any IMM tutorial course.

Program milestones are included in the Academic Progress and Graduation Requirements for Masters Programs Policy. See below for Immunology-specific program highlights and instruction.

Written Examination

The Master's candidate must pass the Immunology written qualifying exam to complete the degree requirements.

Employee Master's Advisory Committee

The Advisory Committee consists of the student's faculty mentor and three additional members with graduate faculty privileges. The committee must be approved by the program director and MCGSBS. The committee will evaluate the scope and content of the Master's scholarly review article (final project), and three of the four members must vote to pass the student for successful completion of the Master's review article (final project).

Master's Project Review

Master's degree candidates must complete a written scholarly review article (final project) under the direction of a faculty mentor. The written review article should provide an independent scholarly review of an important topic in immunology or a scientific grant proposal consisting of a major hypothesis, background, preliminary data (if any), and outline of experimental strategies.

Scholarly Review Article (Final Project)

A defense meeting consisting of 4 committee members and the student must be scheduled within 30 days of completing the review article. During this meeting, the committee will provide final feedback and overall assessment of the student's performance. Any final suggested edits to the document will be made. Three of four committee members must vote to pass the student and a form signed by all committee members must be submitted to MCGSBS immediately upon completion of the defense.

Final Project Corrections

Significant deficits in the scholarly review article will require the student to revise and resubmit the document to the committee within 30 days of the presentation date.

This is a suggested sequence based on a summer term start. Individual course plans may vary depending on true start date, program, employment/ personal commitments, and research interests. Be sure to confirm you have met your requirements using your degree planning tool. Course offerings may vary slightly. Current course offerings are posted in the course catalog.

Code	Title	Hours
------	-------	-------

First Year - Summer Term

MGS 6000	Responsible Conduct of Research	1
IMM 5200	Introduction to Flow Cytometry	1

Code	Title	Hours
------	-------	-------

First Year - Fall Term

IMM 5100	Basic Graduate Immunology	3
----------	---------------------------	---

Code	Title	Hours
------	-------	-------

First Year - Winter Term

IMM 6885	Tutorial in Generation and Function of B Cells (Even years)	2
IMM 6884	Tutorial in Generation and Function of T Cells (Even year)	2
IMM 6882	Tutorial in Bridging Innate and Adaptive Immunity (Odd year)	2
IMM 6878	Tutorial in Innate Immunity (Odd year)	2
IMM 6867	Current Topics in Barrier Immunology	1

Code	Title	Hours
------	-------	-------

First Year - Spring Term

IMM 6879	Tutorial in Adaptive Immunity (Even year)	2
IMM 6880	Tutorial in Tissue Immunity (Odd year)	2
IMM 6863	Current Topics in Immunology	1

Code	Title	Hours
------	-------	-------

Second Year - Summer Term

IMM 6882	Tutorial in Bridging Innate and Adaptive Immunity	2
----------	---	---

Code	Title	Hours
------	-------	-------

Second Year - Fall Term

IMM 6863	Current Topics in Immunology	1
----------	------------------------------	---

Code	Title	Hours
------	-------	-------

Second Year - Winter Year

IMM 6885	Tutorial in Generation and Function of B Cells (Even year)	2
----------	--	---

IMM 6884	Tutorial in Generation and Function of T Cells (Even year)	2
IMM 6878	Tutorial in Innate Immunity (Odd year)	2
IMM 6882	Tutorial in Bridging Innate and Adaptive Immunity (Odd year)	2
IMM 6867	Current Topics in Barrier Immunology	1

Code	Title	Hours
------	-------	-------

Second Year - Spring Term

IMM 6879	Tutorial in Adaptive Immunity (Even year)	2
IMM 6880	Tutorial in Tissue Immunity (Odd year)	2
IMM 6863	Current Topics in Immunology	1

Code	Title	Hours
------	-------	-------

Third Year - Summer Term

IMM 6862	Current Topics in Cell Activation and Signaling	1
----------	---	---

Code	Title	Hours
------	-------	-------

Third Year - Fall Term

IMM 6863	Current Topics in Immunology	1
----------	------------------------------	---

Code	Title	Hours
------	-------	-------

Third Year - Winter Term

IMM 6862	Current Topics in Cell Activation and Signaling	1
----------	---	---

Code	Title	Hours
------	-------	-------

Third Year - Spring Term

IMM 6863	Current Topics in Immunology	1
IMM 6865	Regenerative T Cell Immunotherapy and Cellular Engineering	3

Code	Title	Hours
------	-------	-------

Fourth Year - Summer Term

IMM 6862	Current Topics in Cell Activation and Signaling	1
----------	---	---

Code	Title	Hours
------	-------	-------

Fourth Year - Fall Term

IMM 6863	Current Topics in Immunology	1
----------	------------------------------	---

Code	Title	Hours
------	-------	-------

Fourth Year - Winter Term

IMM 6862	Current Topics in Cell Activation and Signaling	1
----------	---	---

Code	Title	Hours
------	-------	-------

Fourth Year - Spring Term

IMM 6863	Current Topics in Immunology	1
IMM 6865	Regenerative T Cell Immunotherapy and Cellular Engineering	3

Code	Title	Hours
------	-------	-------

Fifth Year - Summer Term

IMM 6862	Current Topics in Cell Activation and Signaling	1
----------	---	---

Code	Title	Hours
------	-------	-------

Fifth Year - Fall Term

IMM 6863	Current Topics in Immunology	1
----------	------------------------------	---

Code	Title	Hours
Fifth Year - Winter Term		
IMM 6862	Current Topics in Cell Activation and Signaling	1

Code	Title	Hours
Fifth Year - Spring Term		
IMM 6863	Current Topics in Immunology	1
IMM 6865	Regenerative T Cell Immunotherapy and Cellular Engineering	3