

# **Graduate Student Guidelines**

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# Immunology Graduate Program STUDENT GUIDELINES THE UNIVERSITY OF IOWA

In addition to the <u>Graduate College Manual of Rules and Regulations</u>, this handbook is for use by the Immunology Graduate Students to clarify Immunology Program-specific policies. The document lists the program leadership, course requirements, laboratory rotation policies, Immunology seminar, Comprehensive Exam format and schedule, and Dissertation Committee guidelines.

# I. Program Academic Objectives

- a. To educate and train students toward independent careers as investigators and educators in cutting-edge research, teaching, and service in basic and applied Immunology
- b. To develop the student's ability to think critically and evaluate data and scientific literature, to problem solve, to expand their technical skills, and to design rigorous and reproducible experiments that increase both their knowledge base and allow them to address scientific questions in immunology
- c. To develop the student's ability to communicate their scientific findings and knowledge via both written and oral methods to a variety of audiences

# II. PROGRAM LEADERSHIP:

PROGRAM LEADERSHIP: Program Director: Dr. Kevin Legge	108C MRC	335-6744
Executive Committee Members: Dr. Vladimir Badovinac Dr. Josalyn Cho Dr. Priya Issuree Dr. Ali Jabbari Dr. Kevin Legge Dr. Wendy Maury	1023 ML 529 EMRB 503 EMRB 2110A ML 108C MRC 4-370 BSB	384-2930 335-4594 335-3668 335-1201 335-6744 335-8021
Graduate Studies Committee Chair: Dr. Jon Houtman	2210 MERF	335-7780
Admissions Committee Co-Chairs: Dr. Ashutosh Mangalam Dr. Jennifer Bermick	1080A ML 505 EMRB	335-8558 335-4258
Comprehensive Exam Committee Co Dr. Noah Butler Dr. Thorsten Maretzky	<b>-Chairs:</b> 3-740G BSB 527 MERB	335-7789 335-4218
Curriculum Committee Chair: Dr. Bing Li	340H EMRB	335-7578
Seminar Committee Chair: Dr. Priya Issuree	503 EMRB	335-3668
<b>Program Administrator:</b> Rob DuBay	354 MRC	335-7748
<b>Program Associate:</b> Sydney Schmeltz	357 MRC	335-0755

# III. When to contact the Program Office

## a. Educational Milestones

Students must contact the Program Office at each of these milestones:

- i. Anytime your name, address, phone number or office/lab contact information changes.
- ii. When you make a rotation mentor choice.
- iii. When you choose your mentor.
- iv. Anytime your funding source changes (receive fellowship, grant, etc.).
- v. When you choose your committees.
- vi. When you have changes in your committee membership.
- vii. Immediately upon scheduling a Thesis Committee meeting. We need to track these, and Sydney will reserve a room.
- viii. As soon as you know what term you will defend.
- ix. Alumni whenever you have a change of positions, institution, name, or other contact information.

## b. Noteworthy Accomplishments

- i. You receive fellowships, grants, or other monetary awards
- ii. You publish papers or chapters.
  - Alumni especially when you have a publication related to the T32.
- iii. You receive any honors or awards.
- iv. You receive any positive media attention
- v. Any other items for the website or social media.

## c. Primary Contacts

First Contact	Question or request
Rob	Registration changes (adds, drops, and change of hours forms)
Sydney	Website updates and corrections
Sydney	Rotation evaluations
Sydney	Room reservations
Sydney	Travel arrangements and reimbursements
Sydney	Meeting arrangements
Sydney	Invoice payments (e.g. restaurant or supply bills)
Sydney	Reports for Committee meetings
Sydney	Reports for Comprehensive Committee meetings
Sydney	Completed Individual Development Plans
Sydney	Poster printing
Sydney	Course evaluations
Rob	Budget questions
Rob or Dr. Legge	Policy questions
Rob	Stipend questions
Rob	U-Bill questions
Rob	Grant and fellowship questions
Rob, Sydney, or Dr. Legge	Complaints/concerns/problems
Submitted through Immunology Student Milestone Workflow Form	Research rotations approval

Submitted through Immunology Student Milestone Workflow Form	Lab affiliation requests
Submitted through Immunology Student Milestone Workflow Form	Committee approval requests
Rob	Comprehensive exam process
Rob	Final exam process
Both Rob and Sydney	At educational milestones listed above

# IV. Calendar

#### Academic Calendar:

### Fall semester 2025:

First day of classes

Degree Application deadline

Request for Final Exam deadline

Final Exam Report deadline

December 2

Dissertation Deposit Deadline

Last day of classes

Close of Finals week

August 25

October 3

December 14

December 2

December 9

December 12

December 19

## Spring semester 2026:

First day of classes	January 20
Degree Application deadline	February 27
Request for Final Exam deadline	March 11
Final Exam Report deadline	April 21
Dissertation Deposit Deadline	April 28
Last day of classes	May 8
Close of Finals week	May 15

#### Summer semester 2026:

Degree Application deadline	June 12
Request for Final Exam deadline	June 16
Final Exam Report deadline	July 21
Dissertation Deposit Deadline	July 28

#### **Rotation Schedule**

Fall Rotation	August 25 – November 14
Winter Rotation	November 17 – Feb 13, 2026
Spring Rotation	February 16 – May 8

Please see <u>Graduate College Deadlines</u> for additional and updated info on deadlines: https://grad.uiowa.edu/academics/deadlines

Ul Academic Calendar: https://registrar.uiowa.edu/academic-calendar

#### V. GUIDANCE:

The Graduate Studies Committee is charged with overseeing the progress of all graduate students at all stages of their training. Incoming first year students are assigned a primary advisor from the Graduate Studies Committee who will advise the student on courses, lab rotations, and all other aspects of their education. Soon after arriving on campus, the students will meet with either the Chair of the Graduate Studies Committee or their assigned advisor to discuss their specific interests, course work, and laboratories for rotations. In addition, the Graduate Studies Committee and Program Director may occasionally meet with students to discuss their academic progress. When a student completes their rotations and enters a laboratory to perform dissertation work, the faculty member in charge of the laboratory will assume the role of advisor. The Graduate Studies Committee will however, continue to oversee the students' academic and research progress. The Graduate Studies Committee is also available to the student for advice should problems or questions arise.

#### **VI. FORMAL COURSE WORK:**

Immunology graduate courses are offered not only to teach students the current concepts and paradigms within the field, but to emphasize the scientific approaches and methods used to attain this understanding.

NOTE: It is expected that the great majority of graduate students will follow the prescribed curriculum. However, it is recognized that circumstances may arise that require a student's course of study to be altered. Therefore, a student may ask the Executive, Graduate Studies, and Curriculum Committees, starting with the Curriculum Committee, for permission to amend the curriculum requirements.

## **Core Immunology Courses:**

(Require a grade of B- or better; S for IMMU:6211 and IMMU:6231)

IMMU:6201 Graduate Immunology

IMMU:6211 Immunology Graduate Student Seminar

IMMU:6221 Rigor and Reproducibility in Immunology

IMMU:6231 Research in Immunology

IMMU:6241 Writing a Scientific Proposal

IMMU:6247 Graduate Immunology and Human Disease

IMMU:7221 Advanced Topics in Immunology

## Required Courses

IMMU:6201 Graduate Immunology

IMMU:6211 Immunology Graduate Student Seminar

IMMU:6221 Rigor and Reproducibility in Immunology

IMMU:6231 Research in Immunology

IMMU:6241 Writing a Scientific Proposal

IMMU:6247 Graduate Immunology and Human Disease

IMMU:7221 Advanced Topics in Immunology

BMED:5207 Principles of Molecular and Cellular Biology

BMED:7270 Scholarly Integrity/Responsible Conduct of Research 1

BMED:7271 Scholarly Integrity/Responsible Conduct of Research 2

PCOL:5204 Basic Biostatistics and Experimental Design

## A. Example schedule:

#### Fall year one

- i. IMMU:6247 Graduate Immunology and Human Disease (4 sh)
  This course provides an overview of the important principles an
  - This course provides an overview of the important principles and key concepts in immunology including the induction of the innate and adaptive immune systems, the molecular events that control immune cell activation and the function of the immune system in infection and pathophysiological events. In addition to lectures, graduate students participate in a small group discussion section that focuses upon clinical and technique-focused studies related to course content as well as good experimental practices and study design (including but not limited to redundancy, biological variables, controls, recognition of error, etc.). Furthermore, the graduate discussion section entails a writing component, consisting of a mini-review on one of the topics discussed. Offered fall semester only. Required for all first-year students.
- ii. PCOL:5204 Basic Biostatistics and Experimental Design (1 sh)
  This course is designed to provide a brief overview of the theory of experimental design and data analysis in the biological sciences for graduate-level students. Upon completion of this course, students will feel comfortable identifying the types of analyses that are available for common types of data generated in the biomedical sciences, and will be empowered to critically review the statistical methods used in published studies.
- iii. BMED:5207 Principles of Molecular and Cellular Biology (3 sh)
  The goals of this course are to familiarize new graduate students with important principles and key concepts in contemporary molecular and cellular biology; to help students develop the skills required to critically evaluate current research publications; and to familiarize students with the experimental techniques utilized to test specific hypotheses. These goals will be achieved through formal lectures on specific topics and discussions focused on evaluation of published research papers (recent or classical). Students are encouraged to ask questions for clarification and to seek out individual faculty members for additional assistance when needed.
- iv. **IMMU:6211 Immunology Graduate Student Seminar** (1 sh)
  All Immunology Program graduate students will attend and will present their research data. Attendance and participation are <u>required</u>. This exercise is designed to foster oral communication skills and collaboration among graduate students. Discussion is highly encouraged, and the students are evaluated by other graduate students and multiple faculty members, who provide feedback of the talks

structure, clarity, style, etc. and provide helpful hints to the speaker by

completing evaluation forms and through an open discussion right after the talk. The major goals of this course are to foster oral communication skills and facilitate collaboration among graduate students and faculty members.

## v. Weekly Immunology Seminar.

The Immunology weekly seminar series provides not only exposure to the research of many distinguished scientists from around the world, but also unique career development activities. This seminar series invites distinguished guest speakers in Immunology and students have the opportunity to interact with these speakers in both formal and informal settings. Attendance and participation are <u>required</u> for all Immunology Program graduate students.

#### Spring year one

## i. IMMU:6201 Graduate Immunology (3 sh)

This course emphasizes the purpose and design of experiments, and how their interpretation has led to current concepts in immunology. Primary goals of this course are to teach advanced concepts in immunology as well as hypothesis development, good experimental and study design (including but not limited to redundancy, biological variables, controls, recognition of error, etc.), and critical analysis of data, through strong emphasis on reading and discussion of primary scientific literature. Sessions take the form of background presentation by the lecturer followed by analysis of primary research papers. Participation by students in the form of discussion and responding to questions is a key goal. Required of all first-year Immunology program graduate students.

## ii. IMMU:6211 Immunology Graduate Student Seminar (1 sh)

All Immunology Program graduate students will attend and will present their research data. Attendance and participation are <u>required</u>. This exercise is designed to foster oral communication skills and collaboration among graduate students. Discussion is highly encouraged, and the students are evaluated by other graduate students and multiple faculty members, who provide feedback of the talks structure, clarity, style, etc. and provide helpful hints to the speaker by completing evaluation forms and through an open discussion right after the talk. The major goals of this course are to foster oral communication skills and facilitate collaboration among graduate students and faculty members.

## iii. Weekly Immunology Seminar.

The Immunology weekly seminar series provides not only exposure to the research of many distinguished scientists from around the world, but also unique career development activities. This seminar series invites distinguished guest speakers in Immunology and students have the opportunity to interact with these speakers in both formal and informal settings. Attendance and participation are <u>required</u> for all students.

#### Fall year two

## i. IMMU:7221 Advanced Topics in Immunology (3 sh)

Graduate Immunology is a prerequisite for this course, although MSTP students, who have taken MOHD II and MOHD IV, may elect to take Advanced Topics for credit in either year 1 or year 2. This course is split into three sections with each section proctored by a different faculty member. Primary goals of this course are to cover distinct contemporary topics in immunology in great detail as well as reinforce the concepts of rigor and reproducibility covered in our other course work. The goal is for each instructor is to present the seminal papers in one area of immunologic expertise. This is done through the use of primary research papers and student presentations. Second year students are required to

take this course for credit. Subsequently, students are required to attend an additional two sections as exemplars for younger students, and to enhance their knowledge of a wider variety of immunologic topics. These two sections need not be taken during the same semester, but can be spread out during the ensuing years. This will enable students to choose two areas which are of particular interest to them. While participating in these additional modules, advanced students will be asked to lead discussions, and demonstrate proper presentation and critique of papers.

## ii. IMMU:6221 Rigor and Reproducibility in Immunology (1 sh)

Graduate Immunology is a Prerequisite for this course. The goals of this interactive course are to provide formal training in rigorous experimental practices and study design including concepts in redundancy (replication, validation, generalization, perturbation, and consistency), controls, authentication of key reagents and resources, biological variables, recognition of error, avoidance of logical traps, and intellectual honesty. In addition, this class will reinforce concepts in good experimental design and interpretation of common Immunology techniques, which are stressed as part of the 'Immunology and Human Disease' and 'Graduate Immunology' courses taken in the Fall/Spring of Year 1. These small group sessions will be led by program and other faculty who are content experts in the topic/technique that is the focus of that session.

## iii. IMMU:6241 Writing a Scientific Proposal (2 sh)

The goal of this course is to teach the skills of scientific writing, using the highly relevant vehicle of scientific proposal preparation. This skill is crucial in many future scientific careers, not restricted to academic research. Students will practice skills of hypothesis and rationale formulation, experimental design, and the ability to present ideas clearly and convincingly in a concise format. During the course, each student will prepare a proposal that can subsequently be submitted to external funding agencies.

#### iv. IMMU:6211 Immunology Graduate Student Seminar (1 sh)

All Immunology Program graduate students will attend and will present their research data. Attendance and participation are <u>required</u>. This exercise is designed to foster oral communication skills and collaboration among graduate students. Discussion is highly encouraged, and the students are evaluated by other graduate students and multiple faculty members, who provide feedback of the talks structure, clarity, style, etc. and provide helpful hints to the speaker by completing evaluation forms and through an open discussion right after the talk. The major goals of this course are to foster oral communication skills and facilitate collaboration among graduate students and faculty members.

## v. Weekly Immunology Seminar.

The Immunology weekly seminar series provides not only exposure to the research of many distinguished scientists from around the world, but also unique career development activities. This seminar series invites distinguished guest speakers in Immunology and students have the opportunity to interact with these speakers in both formal and informal settings. Attendance and participation are <u>required</u> for all students.

## Fall & Spring each year

- i. IMMU:6211 Immunology Graduate Student Seminar (1 sh awarded during the fall semester and the spring semester each year)

  During both the Fall and Spring semesters every year, all graduate students will attend, and will present their research data under the supervision of the Immunology Program faculty. Attendance and participation are required. This exercise is designed to foster oral communication skills and collaboration among graduate students. Faculty and student evaluators will provide student presenters with useful written and oral feedback on their presentations.
- ii. **Weekly Immunology Seminar.** In both the Fall and Spring semesters the Immunology weekly seminar series provides not only exposure to the research of many distinguished scientists from around the world, but also unique career development activities. This seminar series invites distinguished guest speakers in Immunology and students have the opportunity to interact with these speakers in both formal and informal settings. Attendance and participation are <u>required</u> for all students.

## Years 1-2. (1sh total)

- i. BMED:7270 Scholarly Integrity/Responsible Conduct of Research 1
- ii. BMED:7271 Scholarly Integrity/Responsible Conduct of Research 2 Courses entitled Scholarly Integrity/Responsible Conduct of Research 1 and 2 are required for all graduate students in Immunology. These courses BMED:7270/7271 are taken in the 2<sup>nd</sup> year and are designed to expand on and advance training in the principles of scholarly integrity and responsible conduct of research (SI/RCR). Individuals typically start the series in the Fall semester of the 2nd year, however in some cases may start the series in the Spring of year 2. Once started students must complete the series in the following semester (e.g., Fall > Spring; or Spring > Fall series). This course emphasizes small group discussions and fosters ongoing conversations that explore important aspects of the ethical and responsible conduct of scholarly research. Case studies are assigned that cover all core competency areas emphasized by NIH - data acquisition, management, sharing and ownership; conflict of interest and commitment; human subjects; animal welfare; research misconduct; publication practices and responsible authorship; mentor/trainee responsibilities; peer review; collaborative science: financial management; research safety; responsibility to society.

As a prerequisite, all individuals taking these courses must have completed the Biomedical Responsible Conduct of Research SI/RCR training modules through CITI online, web-based training upon entering their first year with a score of at least 80% in each module.

Note: NIH requires that trainees take the Scholarly Integrity/Responsible Conduct of Research at each stage of their career. This means they must take it as a beginning graduate student, take it a second time as a beginning post-doctoral fellow, and potentially a third time if they obtain an NIH K-award for transition to faculty. There also is an "expiration date" of 4 years on RCR training at any stage, after which a refresher course is required. Thus, if someone stays in graduate school (or post-doc) for 5 or 6 years, they are required to take the refresher course. Since Scholarly Integrity/Responsible Conduct of Research courses are taken and finished during year 2 of a student's studies, in the rare occasion a student is still in the Program, this would be done in the fall of year 6.

The web-based CITI training must also be renewed every four years; therefore students will retake the training in the Summer/Fall of year 5.

#### **B. Elective Courses:**

Students will take **3 sh of elective credits**. The following courses are suggested. Additional Electives can be added to the approved Immunology electives via approval from the Executive, Graduate Studies and Curriculum Committees. These are either a 3 sh course or a 5-week 1-credit module on various areas of cellular and molecular biology, taught for graduate-level students. Students have the option to take additional approved electives, on a case-by-case basis, in consultation with the student's advisor and the Curriculum Committee. Course of study will be approved and supervised by the Graduate Studies Committee until a dissertation advisor and dissertation committee has been chosen.

BIOC:7251 Introduction to Protein Structures (1 sh)

BIOC:7252 Enzymes, Carbohydrates, Nucleic Acids, & Bioenergetics (1 sh)

BIOC:7253 Metabolism I (1 sh)

BIOC:7254 Cellular Biochemistry (1 sh)

BIOC:7255 Metabolism II (1 sh)

BIOC:7256 Molecular Biology (1sh)

BIOS:4120 Introduction to Biostatistics (3 sh)

EPID: 6550 Epidemiology of Infectious Diseases (3 sh)

FRRB:7001 Molecular & Cellular Biology of Cancer (3 sh)

MICR:6240 Graduate Eukaryotic Pathogens and Human Disease (2 sh)

MICR:6259 Graduate Bacteria and Human Disease (3 sh)

MICR:6267 Graduate Viruses and Human Disease (4 sh)

MICR:6268 Biology & Pathogenesis of Viruses (2 sh)

MICR:6270 Graduate Microbial Genetics (3 sh)

MMED:6220 Mechanisms of Cellular Organization (3 sh)

MMED:6225 Growth Factor Receptor Signaling (1 sh)

MMED:6226 Cell Cycle Control (1 sh)

MMED:6227 Cell Fate Decisions (1 sh)

PATH:5270 Pathogenesis of Major Human Diseases (3 sh)

PCOL6207 Ion Channel Pharmacology (1 sh)

PCOL:6210 Receptors and Cell Signaling (3 sh)

PCOL:6211 Steroid & G Protein-coupled Receptors 1(sh)

## C. MSTP Student Curriculum

MSTP students affiliating with the Immunology program enter the program with three years of medical school course work completed. As a result, their curriculum is adjusted. The Graduate College also allows 31 sh of course work to be applied to the required 72 sh to earn a PhD degree. In addition to the required courses listed below, it is recommended MSTP students who are not comfortable with Immunology research take IMMU:6247 Graduate Immunology and Human Disease prior to IMMU:6201 Graduate Immunology.

## **Core Immunology Courses:**

## (Require a grade of B- or better; S for IMMU:6211 and IMMU:6231)

IMMU:6201 Graduate Immunology

IMMU:6211 Immunology Graduate Student Seminar

IMMU:6221 Rigor and Reproducibility in Immunology

IMMU:6231 Research in Immunology

IMMU:6241 Writing a Scientific Proposal

IMMU:6247 Graduate Immunology and Human Disease

IMMU:7221 Advanced Topics in Immunology

## **MSTP Required Courses:**

IMMU: 6201 Graduate Immunology

IMMU: 6211 Immunology Graduate Student Seminar

IMMU: 6221 Rigor and Reproducibility in Immunology

IMMU: 6241 Writing a Scientific Proposal

IMMU: 7221 Advanced Topics in Immunology

BMED: 7270 Scholarly Integrity/Responsible Conduct of Research 1

BMED: 7271 Scholarly Integrity/Responsible Conduct of Research 2

PCOL: 5204 Basic Biostatistics and Experimental Design

MSTP students may elect to take IMMU:6221 Rigor and Reproducibility in Immunology and IMMU:6241 Writing a Scientific Proposal in year 1 or 2.

MSTP students may elect to take MSTP:7270 Principles of Scholarly Integrity instead of the BMED 7270 and 7271 courses.

MSTP students are not exempt from taking the 1 module of Biostatistics.

MSTP students do not have an elective credit requirement but may take with, Advisor approval, any of the elective courses listed in (b).

# MSTP Example Schedule (spread over 2 years; see not above for alternative option to take IMMU:6221 and IMMU:6241 in year 1)

## Fall year one (see above for larger course descriptions)

- i. PCOL:5204 Basic Biostatistics and Experimental Design (1 sh)
- ii. **IMMU:6211 Immunology Graduate Student Seminar** (1 sh)
  All Immunology Program graduate students will attend and will present their research data. Attendance and participation are required.
- iii. IMMU:6231 Research in Immunology
- iv. Weekly Immunology Seminar. Attendance and participation are required for all students.
- v. BMED:7270 Scholarly Integrity/Responsible Conduct of Research 1 or MSTP:7270 Principles of Scholarly Integrity

#### Spring year one

- i. **IMMU:6201 Graduate Immunology** (3 sh) Required of all first-year students.
- ii. IMMU:6211 Immunology Graduate Student Seminar (1 sh)
  All Immunology Program graduate students will attend and will present their research data. Attendance and participation are required.
- iii. IMMU:6231 Research in Immunology
- iv. **Weekly Immunology Seminar**. Attendance and participation are required for all students.
- v. BMED:7271 Scholarly Integrity/Responsible Conduct of Research 2 or MSTP:7270 Principles of Scholarly Integrity

#### Fall year two

- i. **IMMU:7221 Advanced Topics in Immunology** (3 sh)
  Graduate Immunology is a prerequisite for this course, although
  MSTP students, who have taken MOHD II and MOHD IV, may elect
  to take Advanced Topics for credit in either year 1 or year 2.
- ii. **IMMU:6221 Rigor and Reproducibility in Immunology** (1 sh) (see note above; option to take in year 1)
- iii. **IMMU:6241 Writing a Scientific Proposal** (2 sh) (see note above; option to take in year 1)
- iv. IMMU:6211 Immunology Graduate Student Seminar (1 sh) All Immunology Program graduate students will attend and will present their research data. Attendance and participation are required.
- v. **Weekly Immunology Seminar.** Attendance and participation are required for all students.
- vi. IMMU:6231 Research in Immunology

## Spring year two

- i. IMMU:6211 Immunology Graduate Student Seminar (1 sh)
- ii. IMMU:6231 Research in Immunology
- **iii. Weekly Immunology Seminar**. Attendance and participation are required for all students.

## VII. Minimum Number of Credits for the Ph.D. degree:

It is anticipated that most students will complete classroom work (except for Immunology Graduate Student Seminar and two additional modules in Advanced Topics) by the end of the 3<sup>rd</sup> semester. Other credits required by the Graduate College for the Ph.D. can be fulfilled by research laboratory course credits. The minimum number of credits required for the Ph.D. degree (coursework plus laboratory) is 72.

## VIII. Academic Progress:

An Immunology Program Graduate Student shall be sent a written notification if, after completing 9 sh (at least 6 sh of which carries a letter grade other than S/U) of graduate coursework at The University of Iowa, the student's cumulative grade-point average falls below 3.00. At such time the student will be on academic probation according to Graduate College policy. If after completing 9 semester hours of A-F graded coursework beginning the semester after being placed on probation the student's cumulative grade-point average remains below the 3.00 minimum the student will be sent a formal notice of dismissal from the program and not allowed to re-register with any Graduate College degree program. Further, Graduate College regulations prohibit a student on probation from taking the general comprehensive or final examinations leading to any degree or certificate, nor may they receive any graduate degree or certificate. Information about the Graduate College probation and dismissal policies may be found in section IV. of the Graduate College Manual of Rules and Regulations.

In addition, any Immunology Program graduate student who earns a grade below a B minus (or below S for IMMU: 6211 and IMMU:6231) in the core Immunology Program courses of: Graduate Immunology and Human Disease, Graduate Immunology, Immunology Graduate Student Seminar, Advanced Topics in Immunology, Writing a Scientific Proposal, and Rigor and Reproducibility in Immunology, Research in Immunology will be required to retake the course(s) the next semester that it is offered. If the student again earns a grade of less than a B minus (less than S for IMMU: 6211 and IMMU:6231), the student will be dismissed from the program due to failure to make satisfactory academic progress.

The student must also make satisfactory progress during laboratory rotations with at least 2 of the 3 rotation mentors indicating that the student had performed "satisfactorily" during the rotation as indicated on the rotation evaluation form. "Unsatisfactory" performance in one or more rotations can lead to dismissal from the program.

The student must also make satisfactory progress toward their degree and dissertation committee reports should indicate that the student has performed satisfactorily during the last evaluation period and is on track to graduate. Unsatisfactory performance and/or failure to make satisfactory progress toward the degree as indicated in one or more dissertation committee reports can lead to dismissal from the program. It should be noted that some of these policies are separate from the general Graduate College policy regarding academic probation (Section IV. Academic Progress, Departmental Probation, and Dismissal Procedures), and will be enforced for Immunology Graduate Program students independently of the Graduate College policy.

## IX. LABORATORY ROTATIONS:

Prior to selecting a laboratory for dissertation work, students are expected to perform three laboratory rotations, with each rotation being approximately 10-12 weeks in duration. During the first semester, a student should become acquainted with the research interests of as many faculty members in the Program as possible. Students are encouraged to meet with specific faculty to discuss their research programs. Students can then make an informed decision about their laboratory rotations, with the guidance and approval of their 1st year advisor and the Graduate Studies Committee. At the latest, students should begin their first rotation within the first week of graduate study. MSTP students who have completed rotations in Immunology Program laboratories before joining the program are excused from further rotations if joining that Immunology laboratory. Students with M.S. degrees (which include a research-based dissertation), may be excused from one rotation.

4<sup>th</sup> Rotations: Students having difficulty identifying a dissertation laboratory may perform a fourth rotation. Failure to successfully match with a laboratory after a fourth rotation will lead to dismissal from the program. The student should notify the program of progress during this 4<sup>th</sup> rotation several weeks before the end of the rotation. The program will work with the student and faculty member to define the timeline for the 4<sup>th</sup> rotation. In addition to the student's 1<sup>st</sup> year advisor and Graduate Studies Committee, this 4<sup>th</sup> rotation needs to be approved by the <u>Program Director.</u> The latter of which will have a conversation with the chosen 4<sup>th</sup> rotation mentor before approval.

Rotations are graded as either "Satisfactory" or "Unsatisfactory". This grade is based upon a number of criteria including attendance and work habits. It is important to note that when not in classes or seminars, the students are expected to spend the remaining portion of the day in the laboratory. Without a strong commitment to the rotation project, it is difficult to fulfill the purpose and aims of the rotation. A "satisfactory" grade is required in each of the laboratory rotations. If a "satisfactory" grade is not obtained in one of the rotations, an additional rotation will be assigned. Failure to obtain a "satisfactory" grade in a rotation can result in the student being dismissed from the program. After each rotation, an evaluation by the faculty member of the student and by the student of the faculty member will be submitted to the Graduate Studies Committee.

## X. LABORATORY AFFILIATION

No later than one week after the final rotation, typically the third rotation, the student will choose a laboratory in which to do research. The faculty member from that laboratory will serve as the student's research advisor unless a Mentor of Record (MOR) is required. A MOR is required if a research advisor has not mentored a student through successful completion of the PhD. degree. Any Immunology Program faculty member who has mentored an Immunology student who achieved the Ph.D. degree is eligible to serve as Mentor of Record.

Research advisors who have not mentored a student through successful completion of the Ph.D. degree are initially limited to 2 immunology students. A faculty member is allowed to take on a 3rd student if one of the 2 current students is post-comprehensive exam, has a published first author (peer reviewed, i.e., non-review) paper, and the mentor has successfully completed the 8-week lowa Mentoring Academy. A mentor of record will remain for all students in the faculty members lab until the first student successfully defends their PhD. Under these conditions the total number of immunology graduate program students in that faculty members laboratory is capped at 3 total students until the first student successfully defends their PhD, at which point there is no cap. However, it is expected that a faculty member will take no more than 3 new immunology graduate program students into their laboratory during a single affiliation cycle.

#### XI.IMMUNOLOGY SEMINAR:

The Immunology Program oversees a weekly seminar series. During the school year, the weekly Immunology Seminar features a number of well-known Immunologists from around the country, as well as Immunology Program faculty. Although seminar is not part of the formal curriculum, students are required to attend.

## XII. TEACHING REQUIREMENTS:

All incoming students will have a one-semester teaching requirement. A variety of courses are available in several Departments, and the Program leadership will place students in courses based upon interest, expertise, and scheduling.

Students are encouraged to reach out to the Program Director by the end of March of the 1st year to provide any information/input they would like the program to consider when making TA assignments for the coming year. Please note that any input/information the students provide will be considered, but students may not receive the assignment they had hoped for as many factors, including but not limited to input/information provide by other students and faculty contribute to final assignments. In the rare occasion that a TA assignment conflicts with an Immunology or course, the TA assignment responsibilities will take precedence. This may require the student to postpone taking a course to a later time.

#### XIII. OTHER IMMUNOLOGY EVENTS AND RESPONSIBILITIES:

In addition to classes and seminar, a number of other events are available for graduate students. Among these additional events and responsibilities (not comprehensive):

- <u>Committee service.</u> The graduate program has student representatives on the Admissions, Curriculum, and Seminar committees. Students with interest in serving on these committees are encouraged to volunteer during our yearly requests.
  - The Admissions Committee considers and discusses all student applications and advises in selecting applications to pursue. Student representatives on the Admissions Committee also coordinate student activities for interview weekends and participates in final decisions of offers of matriculation. This is a 2-year commitment.
  - The Curriculum Committee provides development, revisions, and oversight of coursework. The Committee regularly assesses the effectiveness of these courses, to make recommendations about their inclusion in the training program, as well as identifying any needs not currently filled.
  - The Seminar Series Committee works to plan each years seminar schedule. Faculty are solicited each year for speaker suggestions. Students also nominate and host a student-invited speaker each year. This committee makes the selection of speakers for the coming academic year.
- Informal dinners with invited speakers. A Program highlight is informal dinners scheduled with some of the visiting scientists who present in the Immunology Seminar series. Typically, this dinner is held at a faculty member's home, and is attended by only students, postdoctoral fellows, and the visiting speaker. These dinners are designed for the benefit of the students and are an excellent opportunity to personally meet outstanding scientists, and "pick their brains" on contemporary issues. Students are expected to attend. The 3<sup>rd</sup> year class is responsible for helping to organize these dinners (speaker pick-up, meal pick-up, meal clean-up).
- Monday student seminar. Members of the 2nd year class will help in monitoring of attendance, pickup/return of food and drinks (if provided) as well as pickup/clean-up of the room when requested. All students are required to attend "Immunology Graduate Student Seminar".
- Immunology Seminar. This seminar series invites distinguished guest speakers in Immunology and students have the opportunity to interact with these speakers in both formal and informal settings. Students are required to setup the room, pickup/return of food and drinks (if provided) as well as pickup/clean-up of the room. Attendance and participation are required for all students.
- <u>Lunch with Speakers.</u> The program often offers students the ability to have lunch with our invited speakers. The students are strongly encouraged to sign-up for and attend these lunches. These lunches are designed for the benefit of the students and are an excellent opportunity to personally meet outstanding scientists and discuss your and their research.
- <u>Research Retreat and Research in Progress series.</u> Students are also strongly encouraged to join the <u>Center for Immunology & Immune-Based</u>

<u>Diseases</u> (CIIBD) at The University of Iowa and should participate in the CIIBD-sponsored annual Research Retreat each year in August, as well as the monthly Research In Progress series. Collectively, these events are not only key for one's education, but are important in getting to know all of the other immunologists on campus and fostering scientific collaborations.

- <u>Careers events.</u> The program and various T32s on campus often participate in and co-sponsor symposia that invite speakers who have careers outside of running a laboratory/teaching at a tier I academic research university. The students are strongly encouraged to sign-up for and attend these events. These events are designed for the benefit of the students and are an excellent opportunity to personally meet outstanding scientists and learn about/discuss their careers and career paths.
- <u>Big Sibling.</u> All new Immunology graduate students are assigned a Big Sibling prior to entering the program. Our current students are strongly encouraged to volunteer for this program based on connections they made with the new enrollees during our interview weekends. These Big Siblings serve as a resource and peer mentor to the new enrollees and take a personal interest in the student's progress by routinely checking in with them to make sure their transition to graduate school is going well and answer questions both prior to and after their arrival at the Univ of Iowa.
- Autumn Immunology Conference (AIC). We are fortunate in our close proximity to the annual Autumn Immunology Conference in Chicago, an excellent national meeting held for many decades. 1st years students attend but are not required to submit and present an abstract. Students in years 2-4+ that are attending AIC must register to submit/present an abstract, poster, and oral talk at the meeting.
- <u>Poster presentations.</u> In most years the program holds 2 recruiting weekends (typically in January/February). Students in year 2+ are strongly encouraged to present their work at these recruiting events and other research forums on campus.
- Other Seminars. Aside from Immunology Seminar, a number of other meetings are available. These include focused or topic-oriented journal clubs, seminars in other departments (e.g. Microbiology, Pathology, or Physiology seminar series), and Ph.D. dissertation defense seminars. All graduate students are strongly encouraged to affiliate themselves with a journal club and to become a regular participant.

# XIV. Individual Development Plan (IDP):

The IDP is a tool to assist trainees with career and professional development. The IDP provides a platform for trainees to identify professional goals, assess competencies relevant to these goals, and develop a plan to achieve specific objectives related to their career goals. The trainee-developed IDP becomes a platform for discussion with their Ph.D. mentor, to foster communication important for the trainee's professional development. The process is interactive and iterative to ensure training success and satisfaction. Several steps are involved in the development, implementation, and revision of the IDP. The trainee and mentor are active participants, working together to design a plan that helps the trainee meet

goals identified in the IDP. The process involves identification of short-term objectives, with clear expectations and milestones that address long-term career goals. **Students are required to complete an IDP each year.** 

## a. Basic steps for Trainee

- i. Conduct a self-assessment
  - 1. Define your time commitment to various components of the graduate experience.
  - 2. Assess your skills and interests.
  - 3. Use outside resources to get feedback on your skills, strengths, and weaknesses. The following **self-assessment tools** provide a nice resource for this self-assessment.
    - http://myidp.sciencecareers.org
    - <a href="https://grad.uiowa.edu/individual-development-plan">https://grad.uiowa.edu/individual-development-plan</a>
    - <a href="https://nigms.nih.gov/training/strategicplanimplementationbluepri">https://nigms.nih.gov/training/strategicplanimplementationbluepri</a> nt/Pages/IndividualDevelopmentPlans.aspx
  - 4. Complete the myIDP form under the STEM IDP Resources <a href="https://myidp.sciencecareers.org/">https://myidp.sciencecareers.org/</a>
  - 5. Complete the complementary IDP form on the Program's <u>Student</u> and <u>Faculty Resources webpage</u>.
- ii. Survey opportunities with mentor
  - 1. Identify career opportunities that interest you.
  - 2. Define differences between your current skills and additional skills needed for your identified career objectives.
  - 3. Prioritize areas for development and discuss strategies for addressing objectives with your mentor.
- iii. Write/update your IDP, share it with your mentor, and review together
  - 1. Identify specific skills that you need to develop in the short-term (e.g., 1-2 years)
  - 2. Define strategies to develop each skill. Use the "SMART" principle:

Specific - is it focused and unambiguous?

**M**easurable - define metrics to know whether the objective is achieved.

Action-oriented - identify concrete steps to achieve the objective.

Realistic - is the strategy feasible?

Time bound - define a deadline.

- 3. Discuss draft with mentor
- iv. Implement the plan, and revise as needed
  - 1. Review your plan with your mentor on a regular basis. <u>Completion of the IDP is required on a yearly basis and after completion must be submitted to the Program.</u>
  - 2. Revise as necessary.

## b. Basic steps for Mentor

i. Be familiar with training requirements and opportunities.

- ii. Discuss opportunities with trainee.
- iii. Review your trainee's IDP and help revise. Provide written comments at the end of this document.
- iv. Establish regular periods for IDP review and revision, as needed.

#### **IDP** OTHER RESOURCES

- <a href="https://www.nigms.nih.gov/training/strategicplanimplemen">https://www.nigms.nih.gov/training/strategicplanimplemen</a> tationblueprint/Pages/IndividualDevelopmentPlans
- <a href="https://hr.nih.gov/training-center/services/individual-development-plan-idp-consulting-and-workshops">https://hr.nih.gov/training-center/services/individual-development-plan-idp-consulting-and-workshops</a>
- <a href="https://grad.uiowa.edu/grad-success/individual-development-plan">https://grad.uiowa.edu/grad-success/individual-development-plan</a>

## XV. COMPREHENSIVE EXAMINATION:

#### a. Overview:

The purpose of the Comprehensive Exam is to evaluate whether students have successfully acquired the skills and competence to continue on to the research and dissertation phases of the Ph.D. program. Two essential skills that will be evaluated are:

- i. The ability to learn and understand the state of knowledge in an area of inquiry, identify a <u>significant</u> knowledge gap in that area, formulate a hypothesis or hypotheses to test this gap, and design an experimentally feasible, reproducible, effective, and controlled approach to test the hypothesis(es).
- ii. The ability to communicate clearly with other scientists orally and in writing. This is accomplished through the submission of an abstract, full proposal written in the form and style of an NIH grant proposal, and an oral examination.

Each student taking the Comprehensive Exam in a given cycle will prepare a single abstract of an original research proposal, to be submitted to the examining committee. Upon being judged acceptable by the committee, the student will submit a full proposal to the examining committee. When the full written proposal is judged acceptable, the examining committee will conduct an oral examination. A simplified sample flowchart of the Comprehensive Exam process and committee decision points is found below. The text of this section is more detailed and should be referenced in conjunction with the simplified flowchart. In the case of a discrepancy between the simplified sample flowchart and this text, the text will be used.

Comprehensive Exam abstracts, proposals, and other work should be the result of the student's own ideas. Students <u>may not utilize</u> the University of Iowa Graduate College Grad Success office/program/center, other professional editing services, and/or artificial intelligence (AI) resources,

including large language models, to prepare, compose, or edit their abstract(s), proposal(s), or any component of their comprehensive exam. Doing so will result in the Exam being judged as "Unsatisfactory", constitute a failure of the exam and can lead to immediate dismissal from the program.

Students, however, may discuss their abstracts and proposals with other students and postdoctoral fellows. They are also allowed to consult faculty other than their dissertation advisor(s) for questions regarding specific techniques, as well as general knowledge questions. However, they cannot ask faculty to review their rationale, Aims, or provide experimental design details. It should be emphasized that no matter who provides advice, the student is responsible for whatever is in their proposal, regardless of what any other scientist may offer as an opinion. "Dr. X said so" is NOT an excuse for incorrect information or flawed reasoning. The description of the exam as "comprehensive" means the student should have a clear understanding of the state of knowledge that underlies the rationale upon which the proposal is built and the feasibility of the approaches. When published papers are used as the basis for designing further experiments, be sure such papers are read thoroughly and carefully (not just the Abstract).

Comprehensive Exam committees will communicate directly with students. Advisors should not act as an intermediary in this process. If an Advisor feels compelled to raise a concern about a decision by a comprehensive exam committee, they should contact the Program Director.

## b. Timing:

The Comprehensive Exam guidelines are written to promote uniform schedules and uniform treatment of graduate students. However, exceptions may be made in the case of illness, family crisis, or other serious circumstances that could interfere with a student's ability to follow the schedules outlined.

Students will take their Comprehensive Exam in Spring of their second year of their graduate studies, except for under the following circumstances:

- 1. MSTP students who join their dissertation laboratory at the beginning of the first year may choose to begin the Comprehensive Exam in the fall of their second year of graduate study, beginning in September.
- 2. Students entering the Program with a MS degree may choose to begin the Comprehensive Exam in the fall of their second year of graduate study, beginning in September.
- 3. Prevented by Graduate College policy, e.g. academic or other probation

4. Under extenuating circumstances approved by the Graduate Studies Committee and Program Director. This is extremely rare and requires significant justification.

<u>Graduate College regulations</u> prohibit a student on academic probation from taking the comprehensive examination. When a comprehensive exam is delayed by academic probation, the exam will be taken the semester immediately after removal of the academic probation.

According to the regulations of the Graduate College, if the first attempt of the exam is judged unsatisfactory (i.e. failed), a student may begin the examination process again no sooner than 4 months after the first attempt is judged unsatisfactory. If a student fails to pass after two attempts, the student will not be permitted to remain as a Ph.D. candidate and will be dismissed from the program.

Failure to satisfactorily pass the Comprehensive Exam by the end of the fifth semester (Fall semester of year 3) will, unless a specific exception is granted by the Graduate Studies Committee and the Program Director, result in a grade of "Incomplete" for the student's research for that semester. Requests for exceptions must be submitted in a letter to the Chairperson of the Graduate Studies Committee and the Program Director no later than 3 weeks prior to final grade submissions for that semester (approximately November 15<sup>th</sup> refer to the University Academic Calendar for exact date) and fully explain and justify the reasoning for the exception request. This letter will also be made a part of the student's file. If the grade of "Incomplete" is not removed by the end of the next full semester (Spring year 3), the grade for the student research will be changed automatically to a "F" and the student will have failed to make satisfactory academic progress and be dismissed from the program.

## c. Role of the Committee Chairperson:

The role of the Chairperson of the Comprehensive Exam committee is to provide summary guidance and feedback from the committee, from the information provided to them, at the committee decision points as well as communicate all committee decisions to the student. The student should not expect that a bullet pointed list of all issues or instructions on how to fix each specific issue or concern that an individual committee member may have will be provided to them or that additional concerns will not arise at later stages of the process or during the oral defense. As this is an exam the student is ultimately responsible for all aspects of the comprehensive exam (i.e. the document, defense, etc.). In some instances when providing committee summary feedback, the committee chairperson may encourage the student to try and reach out to and meet with individual committee members to discuss in a broad way their individual concerns/feedback. Even when this is not suggested by the chairperson, the student, after meeting with the chairperson for the summary feedback, is free to reach out to and engage the individual committee members to discuss in a broad way their individual concerns/feedback. While many committee members will agree to such meetings, individual committee members are under no obligation to meet with the student to discuss their individual concerns. Given the individual expertise of committee members, the students should expect that based on that expertise the individual committee members may have specific concerns related to the proposal that may not be shared by others on the committee whose expertise lies in a different area.

#### d. Exam Format and Outcomes:

#### i. Abstract:

The abstract must describe a proposal that does not overlap in major approach or topic with the student's dissertation research, or any other ongoing projects in the dissertation laboratory. As examples, the student should not propose to study the same cell types, pathogen type, disease process, or utilize a uniquely special methodology related to work in their mentor's laboratory. Prior to starting the abstract the student should inquire with the committee Chairperson as to whether the chosen topic area and rough approach is an area with overlap concerns. The Chairperson will then reach out to the committee to determine if they have any initial concerns about overlap. It should be understood as this initial feedback related to overlap of the topic and approaches by the committee is being undertaken based on the very broad topic areas and approaches provided by the student and that the committee may not be able to fully identify concerns and issues related to overlap until the completed full abstract, which contains additional detail and may have been revised by the student, is submitted. This exam process begins in the semester that the exam is undertaken. Students should not formally start the process of identifying a topic/approach in a semester before the start of the exam. If the student reaches out to the Chairperson in semesters before the start of the exam the Chairperson and committee are under no obligation to answer such inquires.

The student must <u>not</u> consult with his/her dissertation advisor during this process, except to ask an opinion about potential overlap of a topic. Please note despite what the dissertation advisor may say the exam committee/chairperson are the only individuals can officially rule on overlap concerns.

The abstract and proposal must address a <u>significant</u> knowledge gap in the area chosen and not reproduce already published studies. The Abstract will:

- 1. consist of a *Rationale* section, explaining the context of the area of focus, and the significance of the question(s) to be addressed;
- 2. contain *Specific Aims*, which briefly outline the major experimental objectives of the project, as well as an overview of the approaches

(not the detailed Methods) proposed to address the Specific Aims of the project.

- 3. have at least 0.5" margins, 11-point Arial font type and is limited to 2 single-spaced pages (references not included in the 2-page limit)
- 4. be submitted to the Program Office.

Students are encouraged to review successful abstracts and Rationale/Aims pages of grants of their mentors or senior postdoctoral fellows as examples for what sort of information this should contain, while they prepare their own documents.

#### ii. Abstract Outcome:

Upon submission of the Abstract, the Comprehensive Exam Committee for the student will then determine a) if the abstract topic is appropriate as non-overlapping and b) if the abstract is scientifically sound and could potentially serve as the basis for a defensible comprehensive exam proposal. Three outcomes are possible.

- 1. The abstract is judged <u>"Acceptable"</u>; the student may begin work on the written proposal. Submission of full written proposal is due <u>four weeks</u> of the student being notified.
- 2. The abstract is judged "Reservations" if the topic of the abstract is acceptable, and the committee believes that the abstract could potentially lead to a defensible proposal, but first requires revision. The student will receive a written summary of the major deficiencies in the abstract and the revisions required. If the needed revisions are substantial, part or all of the examining committee will convene a meeting with the student, to discuss the nature of the revision needed. The student may talk with the Chairperson for clarification as necessary. A revised abstract will be due one week after this summary is sent to the student. The student will have only one opportunity to revise the abstract so it forms a suitable basis for the written proposal. If the revised abstract is judged "acceptable", the student will move on to the proposal stage of the comprehensive exam. If the revised abstract is judged "unsatisfactory" the student will submit a new, unrelated (i.e. on a new research topic) abstract 3 weeks after being notified of the Committees decision.
- 3. The abstract is judged to be fatally flawed and thus "Unsatisfactory". The student will be informed in writing of the basis for the committee's decision and will be instructed to prepare a new abstract on a different research topic. The second abstract will be due 3 weeks after this notification. The second abstract will have three outcomes, "acceptable", "reservations", or "unsatisfactory". If the second abstract is judged "Unsatisfactory" the student's first attempt at the Comprehensive Exam will be considered "unsatisfactory" and they must wait a minimum of 4 months before a second attempt, beginning with

the submission of a new unrelated abstract. Students who receive an unsatisfactory on their second attempt will be dismissed from the Program.

If an abstract is judged "acceptable", the student will be given 4 weeks, from when the student was notified, to complete and submit the written Comprehensive Exam proposal. The Comprehensive Exam will be written in the form and style of an NIH R21 grant proposal based on the abstract and instructions from the Comprehensive Exam Committee.

#### iii. Written Proposal:

The proposal must be submitted to the Program Office for distribution to the committee. The proposal will be limited to 7 single-spaced pages (one of which should be a Specific Aims page), with 0.5-inch margins and 11-point Arial font type. References will not count in the 7-page limit, but cannot constitute more than five pages. This document should be formatted similar to a NIH R21 application. It should address the following:

- 1. Significance
- 2. Innovation
- 3. Rationale of/for the project
- 4. Approach for each Aim/SubAim. The Approach section should address:
  - a. the experimental approach, including controls.
  - b. expected and alternative results,
  - c. interpretations.
  - d. possible pitfalls and alternative approaches

Rather than list all the details of specific protocols, students are urged to refer to published literature whenever possible, and instead focus on <u>why</u> a method was chosen, and its strengths and limitations that impact data interpretation. Students should consider the <u>feasibility</u> of the approaches chosen and choose approaches that are technically feasible. The student should fully consider the experimental approach similar to if they were going to actually undertake the experiments at the bench in their daily research.

Once the written proposal is submitted, the committee will examine the submitted written document and make a decision on how to proceed within ~1 week of the submission.

#### iv. Written Proposal Outcome:

Upon submission of the Proposal, the Comprehensive Exam Committee for the student will then determine if the proposal a) addresses a significant and novel knowledge gap, b) is scientifically rigorous, and c) is scientifically sound and d) could serve as the basis for a defensible comprehensive exam oral defense.

Three outcomes are possible:

- The written proposal document is judged "acceptable" for an oral defense, the oral defense will then be scheduled ~21 – 28 days after the decision is communicated to the student, depending on availability of the committee members.
- 2. The written proposal is judged "reservations" if the committee believes the written proposal could potentially lead to a successful oral defense but first requires significant revisions. The student will be informed in writing of the basis for the committee's decision and will be instructed to prepare a significantly revised written proposal. The revised written proposal will be due 3 weeks after this notification. If the student does not successfully address the significant reservations the committee outlines in the revised written proposal or does not submit the revised document within the timeline set by the comprehensive exam committee, no oral defense will occur, and the outcome of the exam is "Unsatisfactory". Students who receive unsatisfactory on their first exam attempt must wait a minimum of 4 months before a second attempt. Students who receive unsatisfactory on their second exam attempt will be dismissed from the Program.

If the revised written proposal is judged "acceptable" by the Comprehensive Exam Committee an oral defense will be scheduled ~21 - 28 days, depending upon faculty availability, after the decision is communicated to the student that the proposal is acceptable.

3. The written proposal is judged "unsatisfactory", the student has failed the first attempt at the Comprehensive Exam and an oral defense will not proceed. Students whose exams are judged "unsatisfactory" on their first attempt must wait a minimum of 4 months before a second exam attempt which will begin with the submission of a new completely unrelated abstract. Students who receive an unsatisfactory on their second exam attempt fail the exam and will be dismissed from the Program.

#### v. Oral Defense:

An oral defense will be scheduled ~21 - 28 days, depending upon faculty availability, after the student has been notified the full proposal is acceptable.

The Comprehensive Exam Committee will hear the student's oral defense, which can begin with a very brief (~ 5 minutes) overview presentation outlining the background, rationale, specific aims, and experimental approaches. The student may use visual aids, such as PowerPoint slides, which are specifically related to the presentation of the proposal.

However, no additional reference material, besides the written proposal, will be allowed in the room during the defense. The student's presentation will be followed by questions from the Comprehensive Exam Committee on the content of the oral defense and of the written proposal. The Committee may also ask questions designed to more generally probe the depth and breadth of the student's understanding of fundamental aspects of immunology concepts, functions, and mechanisms.

#### vi. Oral Defense Outcome:

Three outcomes are possible:

- 1. The oral defense is judged as <u>"Satisfactory"</u>. The student passes and will be permitted to continue to work toward the Ph.D.
- 2. The oral defense is judged as <u>"Reservations"</u>. The student will receive a written summary of the major deficiencies of the oral defense and be given an opportunity to eliminate the reservation(s) according to specific written instructions and timeline provided by the Comprehensive Exam Committee. If the reservations are not successfully addressed or not submitted within the timeline established by the committee, this will result in an "Unsatisfactory. Students who receive an unsatisfactory on their first exam attempt must wait a minimum of <u>4 months</u> before a second exam attempt, beginning with the submission of a new, unrelated abstract. Students who receive unsatisfactory on their second exam attempt, fail the exam and will be dismissed from the Program.
- 3. The oral defense is judged as <u>"Unsatisfactory"</u>. Students who receive an unsatisfactory on their first exam attempt must wait a minimum of <u>4 months</u> before a second attempt, beginning with the submission of a new, unrelated abstract. Students who receive unsatisfactory on their second exam attempt, fail the exam and will be dismissed from the Program.

#### e. Example Timeline:

There are many potential timelines depending upon how each component of the comprehensive exam is judged along the way. Below is a sample timeline showing the first abstract is judged reservations, the revised abstract is judged acceptable, and the first proposal is judged acceptable. As this an exam students are expected to meet all of their deadlines. Some minor fluctuations with notification of committee decisions may occur due to varying faculty responsibilities.

All documents must be submitted to the Program Office no later than 5:00pm on the due date. The Program Office will distribute the documents to the student's committee.

## Spring example timeline

**February 1**: Deadline for abstract submission. Abstracts must be submitted to the Program Office.

**February 8**: Deadline to notify students if the abstract is acceptable (with or without modification) by the Comprehensive Exam Committee, or whether an entirely new abstract is needed.

**February 15**: Deadline for submission of revised abstract, if first abstract was judged reservations.

**February 22**: Deadline to notify students if revised abstract is acceptable or unsatisfactory.

March 22: If revised abstract is acceptable, deadline for submission of full proposal in NIH style grant proposal.

March 29: Deadline to notify student if full proposal is acceptable.

April 19 – 26: Goal for oral defense date. This could vary widely based upon faculty availability.

## Fall example timeline

**September 15**: Deadline for abstract submission. Abstracts must be submitted to the Program Office.

**September 22**: Deadline to notify students if the abstract is acceptable (with or without modification) by the Comprehensive Exam Committee, or whether an entirely new abstract is needed.

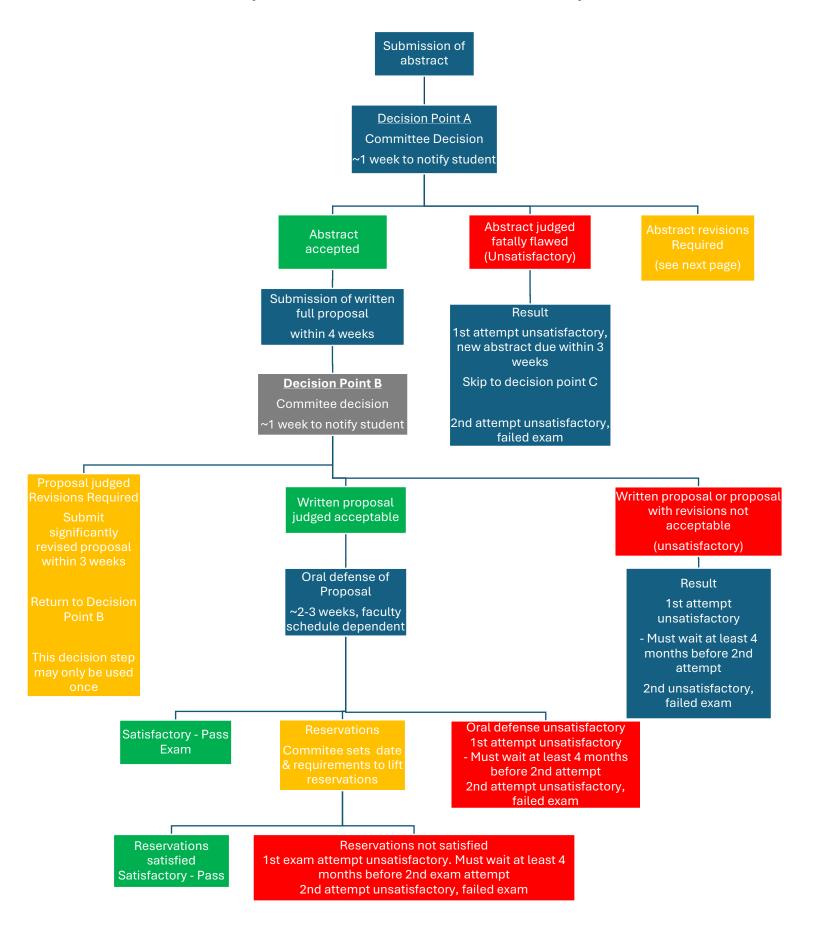
**September 29**: Deadline for submission of revised abstract, if appropriate.

**October 6:** Deadline to notify students if revised abstract is acceptable or unsatisfactory.

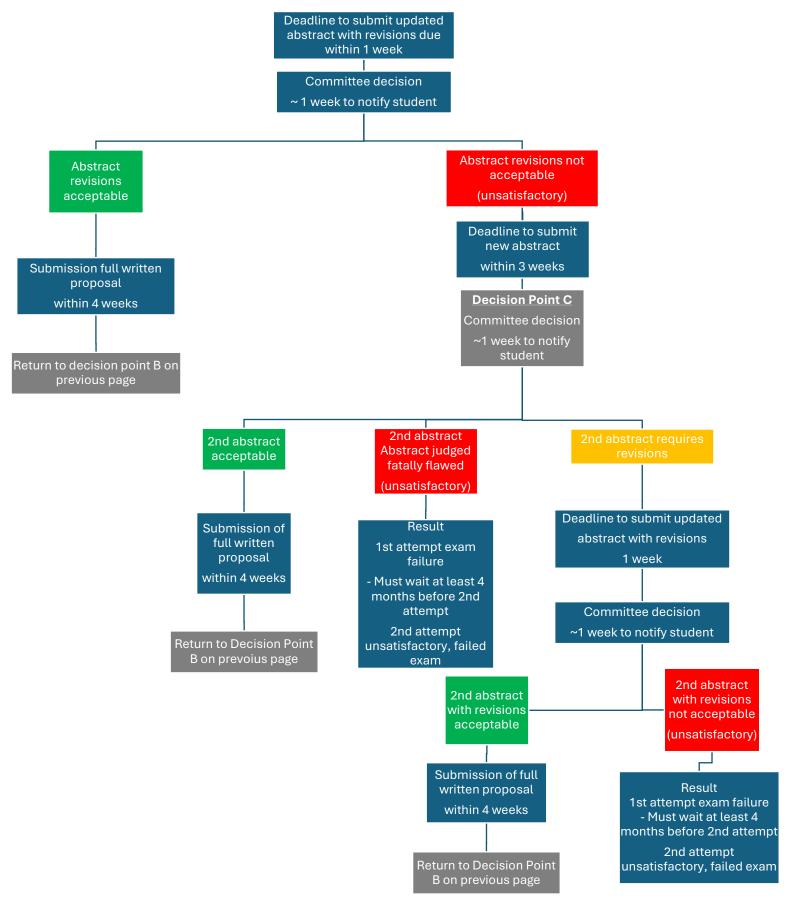
**October 27**: If revised abstract is acceptable, deadline for submission of full proposal in NIH style grant proposal.

**November 17 – 24**: Goal for oral defense date. This could vary widely based upon faculty availability.

# **Comprehensive Exam Decision Tree Example**



## **Comprehensive Exam Decision Tree Example: Abstract Revisions Required**



### XVI. DISSERTATION RESEARCH:

Before the beginning of Fall semester of year 2 (normally at the end of the Spring semester of the first year), the student will choose a laboratory in which to do research. The faculty member from that laboratory after approving the student joining their laboratory will serve as the student's <u>research advisor unless a Mentor</u> of Record is required.

#### a. Dissertation Committee:

Together the student and the student's research advisor will select a Dissertation Committee for the student prior to the start of the third semester of graduate study (i.e. typically Fall of year 2) and submit these selections to the program for approval by the Graduate Studies Committee. The Dissertation Committee will consist of at least five members, including the student's research advisor. At least four members of the committee will be members of the Immunology Graduate Program. The fifth faculty member may be from outside the Program but must have an appointment in a Ph.D.-granting program/department. Unless the student has a Mentor of Record (who in that case will serve as Chair), the Dissertation Committee will elect a chairperson (who will not be the research advisor) and inform the Program.

The Dissertation Committee will meet with the student at least once each year to review the plan of study and to receive a written report of research progress prepared by the student. The first of these meetings must be held in the Fall of the 2nd year. All subsequent annual reports and Dissertation committee meetings must be completed within one month of the anniversary date of the student's passing the Comprehensive Exam. The purpose of this yearly meeting is to determine whether the student's progress has been appropriate to allow for enrollment in the academic year beginning the following Fall semester. Unsatisfactory progress, as judged by the Dissertation Committee, during the yearly thesis committee meeting can lead to dismissal from the program. The written report will then be forwarded to the Graduate Studies Committee and will be made part of the student's record. If the annual written report is not received within 60 days of this anniversary date, the student will receive an "incomplete" for that semester's research (IMMU:6231: Research in Immunology). If the student has not submitted a satisfactory report within the next 60 days, the grade will be changed automatically to an F and the student may be required to leave the Program.

All students will present their research to the members of the immunology community at the University of Iowa by giving a research seminar in the Immunology Seminar course.

The student or any member of the Dissertation Committee may, with reasonable notice, request a meeting, at other times of the year, in which the student and the Committee members would participate. This is especially encouraged during the latter stages of the student's dissertation work.

The Dissertation Committee will be responsible for administering the final examination, or dissertation defense.

It is expected that the dissertation project be of sufficient breadth, depth, and novelty to result in first-author research publications in high quality peer-reviewed journals.

## b. Publication Requirements:

A minimum of one peer-reviewed first-author paper <u>from their dissertation research</u> must be published or in press prior to completion of the Ph.D. In addition, a second publication, in which the student is a co-author on a peer-reviewed article, a review, or book chapter must be published or in press prior to the completion of the Ph.D. The student will not be permitted to schedule a dissertation defense until it has been demonstrated that both of these requirements have been met.

## c. Mentor of Record (MOR):

If the research advisor selected by the student has not mentored a student through successful completion of the Ph.D. degree, the student and advisor must additionally select a Mentor of Record (MOR). Any Immunology Program faculty member who has mentored an Immunology program student who achieved the Ph.D. degree is eligible to serve as Mentor of Record. The research advisor must submit the name(s) of the suggested Mentor of Record for final approval by the Graduate Studies Committee. The Mentor of Record should be selected as soon as possible (typically in the summer of year 1) after the student has chosen the research advisor. The Mentor of Record will serve as the chairperson of the student's Dissertation Committee. In addition to the required annual meeting of the student with the entire Dissertation Committee, the student, mentor, and MOR meet separate of the committee every 6 months to discuss progress. The first of these meetings will occur within 3 months of selecting a MOR. It is emphasized to the student and mentor that the MOR is a resource for experienced advice and assistance to both. The MOR files written reports of these meetings to the Program and is encouraged to bring any problems to the attention of the Graduate Advisory Committee.

Research advisors who have not mentored a student through successful completion of the Ph.D. degree are initially limited to 2 immunology students. A faculty member is allowed to take on a 3rd student if one of the 2 current students is post-comprehensive exam, has a published first author (peer reviewed, i.e., non-review) paper, and the mentor has successfully completed the 8-week lowa Mentoring Academy. A mentor of record will remain for all students in the faculty members lab until the first student successfully defends their PhD. Under these conditions the total number of immunology graduate program students in that faculty members laboratory is capped at 3 total students until the first student successfully defends their PhD.

The final examination may not be held until the next session after satisfactorily completing the comprehensive examination; however, a student must pass the final examination no later than 15 sessions (Fall, Spring, and Summer) after satisfactorily completing the comprehensive examination. A session is defined as beginning in the semester subsequent to exam completion and includes summer semester but excludes the winter session.

Final Exam and defense. When the Dissertation Committee has agreed that the student is ready to write the dissertation, the mentor approves a near-final draft of the dissertation for distribution to the committee. The committee must receive the dissertation no less than 2 weeks prior to the scheduled defense date. Failure to provide the written document in a "final" complete ready format to the committee by that deadline can, at the committee discretion, result in cancelation of the public and private defense. Following a public seminar on the dissertation research, the committee will meet with the student for the private oral defense. Please note that the public part of this defense is an exam and should be approached in a highly professional manner. The seminar and all questions from the audience should end prior to thanking individuals/groups, if the student chooses to do so. After making all revisions indicated at this meeting, a final copy of the dissertation is submitted to the Graduate College, the Program Office, and each member of the Dissertation Committee.

Please note that the dissertation defense is a scientific defense of the body of work performed by the student in partial completion of the Ph.D. It should be viewed as a formal oral exam to complete the Ph.D. candidacy requirements. It is possible to fail the final defense due to the written document, the public oral presentation or the private oral defense. Hence, all aspects of this must be professional, with the student presenting a coherent summary/overview of the work that was performed during the dissertation work. Students and/or mentors can, if they so choose, hold a celebration at a later time/date where it would be appropriate to celebrate the successful completion of the dissertation and thank those who helped in the student's journey to completion.

Failure to complete the final exam before a student's end session (i.e., 15 sessions, post-comprehensive exam) carries the following consequences. Prior to the published final exam deadline in the semester of a student's end session, the program may after dissertation committee and mentor guidance choose to submit a request for an extension, which is subject to Graduate College approval. The extension request (typically for a maximum of three sessions) must include a statement which explains how the student has stayed up-to-date in the field and a completion plan consisting of a timeline with benchmarks. The request may also include a brief description of extenuating circumstances faced by the student. The student may be required to retake the comprehensive exam to demonstrate that they have remained up-to-date in the field (e.g. Immunology). Retaking the comprehensive exam as part of an extension request does not, however, reset a

student's end session, nor is a second attempt allowed, if the retake is unsuccessful. If an extension is not requested, if the extension request is not approved by the Graduate College, or if the student does not pass the comprehensive exam retake, the student will be dismissed from the graduate program.

Immunology Graduate Program students are typically guaranteed stipend and tuition support for 5 years. Yearly renewals will be based upon factors including the quality of work during the previous appointment, satisfactory progress toward the degree and in their dissertation research, satisfactory completion of all duties relating to the appointment, remaining in good standing with the program, and availability of funding. Support after 5 years is not guaranteed. The mentor may choose to continue providing support to the student if satisfactory progress is being made.

Basic Criteria for Initial Appointment and Renewal Appointment is contingent upon:

- Maintaining the required minimum GPA
- Meeting English proficiency standards (if relevant)
- Attending orientation and training
- Receiving satisfactory student evaluations from your current appointment
- Maintaining a primary degree objective as a graduate or professional student
- Maintaining satisfactory academic progress in the primary graduate degree program
- Full-time enrollment during the semester or having an approved accommodation through Student Disability Services (SDS) for short hours.
- Availability of funding
- Maintaining professional conduct and not participating in Scientific, Academic or Harassment misconduct
- Successful completion of your comprehensive exam
- Finding and mentor and joining a laboratory after your rotations
- Completing a yearly Individual Development Plan
- Holding yearly dissertation committee meetings. The student must make satisfactory progress toward their degree and dissertation committee reports should indicate that the student has performed satisfactorily during the last evaluation period and is on track to graduate.

## XVII. THE PH.D. DISSERTATION:

To be awarded the Ph.D. degree, a candidate must satisfactorily defend the Ph.D. dissertation. Note as discussed above, the student will <u>not</u> be permitted to schedule a dissertation defense until it has been demonstrated that all publication and other requirements have been fully met. This includes but is not limited to full acceptance by the journal of the student's qualifying manuscripts. A manuscript submitted or judged accepted pending minor modifications are not considered fully accepted manuscripts.

During the semester in which the student plans to graduate, there are many things that must be tracked and completed prior to <u>deadlines</u>.

## Briefly.

- Application for degree must be filed by the student;
- Request for exam document must be completed by the deadline for that semester. You must have an agreed upon defense date with your committee for this form to be filed with the Graduate College.

The procedure to be followed by the student regarding the Ph.D. dissertation is as follows:

- I. The student's completed or nearly completed research should be presented orally to members of the Dissertation Committee for consideration. If the Dissertation committee considers progress to be adequate, the student will be advised to write the dissertation. The style of the dissertation will conform to that presented in the CBE Style Manual.
- II. When a draft of the dissertation has been approved by the student's research advisor, a fully complete and mentor approved copy will be distributed to each member of the Dissertation Committee at least two weeks before the date of the final defense. At the discretion of the Dissertation Committee, failure to meet this 2 week deadline may result in cancelation of the final examination.
- III. This draft of the Dissertation must conform to the rules of the Graduate College office and must be presented to said office according to their schedule for that semester. <a href="https://grad.uiowa.edu/academics/thesis-and-dissertation">https://grad.uiowa.edu/academics/thesis-and-dissertation</a>
- IV. The student will present a one-hour <u>public seminar</u> on the dissertation work. All graduate students and faculty in the program will be encouraged to attend. The seminar will be followed by a two-hour private <u>defense of the dissertation</u> before the student's Dissertation Committee. A final draft of the dissertation will then be prepared incorporating revisions suggested by the committee and approved by the advisor and the committee.
- V. Final corrected copies of the dissertation must be <u>submitted</u> to the Graduate College office in accordance with Graduate College deadlines (often at least <u>ten days</u> before the graduation date). Students must additionally provide the program office a PDF version of your finalized dissertation to add to your student file.
- VI. Students should stay abreast of graduation completion requirement notifications coming from the Graduate College, including getting them your dissertation deposit. Your dissertation deposit includes your committee signing off on your written dissertation (this is different than the signed

Report of Final Exam that was done after the private defense). There is information about submitting and formatting your dissertation on this Graduate College website.

- VII. Expenses for typing the dissertation, any illustrative material, and copies of the dissertation, are the responsibility of the student.
- VIII. In addition to the copies required by the Graduate College, the student will present one final copy of the dissertation to the Program for the permanent library file, and at least one copy to the advisor.
- IX. Students should complete the Graduate College Exit Survey that will be emailed to them. The student should also complete a short post-graduation survey from the graduate program to help us provide information for grant reporting and office records.
- X. If the student needs to provide a degree verification letter to your new employer before your degree is conferred, they should complete the form on the <u>Graduate College Thesis and Dissertation FAQ page</u>.
- XI. The program requests that any time you have updated contact information, please inform the Program Office so we can update our database (new email, mailing address, employment, or position title). While this information is needed for grant purposes as we need to report it for the next 15 years, we are interested in keeping in touch as you continue your career.

# XVIII. Food & Beverages for Meetings

The Immunology Graduate Program does not expect students to provide food and/or beverages for Committee meetings, Comprehensive Exams, or defenses. Further the lack of food/beverages will not be looked at negatively by those attending. This policy is supported by the Graduate Student Senate Resolution Addressing Food at Meetings.

# XIX. PAY, TIME OFF, AND BENEFITS:

The tuition and mandatory fee scholarships are contingent upon remaining a degree-seeking, enrolled graduate student and maintaining your appointment for the entire semester, academic year, or fiscal year. Please note you may be responsible for repaying tuition if you drop course credits after the beginning of the semester.

The University will classify you as a resident for tuition purposes during the semesters you hold an appointment of 25% time or greater. However, your classification with the University as a whole will remain unchanged if you are a nonresident; you will only be considered a resident for tuition purposes. Your tuition scholarship will be applied as a credit toward your tuition bill. For enrollments of

fewer than 9 semester hours, the tuition scholarship will be prorated accordingly (<a href="https://registrar.uiowa.edu/tuition-residency">https://registrar.uiowa.edu/tuition-residency</a>).

If you were awarded financial aid, please contact the Office of Student Financial Aid to discuss the impact this tuition/fee assistance and assessment at the resident rate will have on your aid award. You may contact the office at <a href="mailto:financial-aid@uiowa.edu">financial-aid@uiowa.edu</a> or 319-335-1450 or 2400 University Capitol Centre.

Graduate teaching and research assistant appointments or employment terms and conditions are governed by applicable provisions of the University Operations Manual at <a href="https://opsmanual.uiowa.edu/">https://opsmanual.uiowa.edu/</a>, Graduate College graduate student employment policies at <a href="https://grad.uiowa.edu/funding/graduate-student-employment-standards">https://grad.uiowa.edu/funding/graduate-student-employment-standards</a> and Interdisciplinary Graduate Program in Immunology policies listed in our student handbook. As a research assistant, you will be required to be on-campus regardless of your assignment, unless specifically approved by the College, the Immunology Graduate Program, and your mentor.

<u>Successful graduate education in the sciences does not begin and end with the usual academic calendar, but rather is a full-time occupation</u>. Reasonable vacation periods are certainly appropriate, but long or repeated absences are generally not permitted. Vacations or any other planned absences should be discussed in advance with the research mentor/PI in whose laboratory a student is rotating or working.

## NIH fellowships.

Kirschstein-NRSA (e.g. NIH F awards) and T32 NIH trainees and fellows are eligible for other types of leave (vacations and holidays, sick leave, childcare, parental leave).

NIH Parental Leave Policy for NRSAs refer to:

- <a href="https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-154.html">https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-154.html</a>. NRSA/T32 childcare guidance refer to:
  - https://grants.nih.gov/grants/guide/notice-files/NOT-OD-24-116.html,
  - https://grants.nih.gov/grants/guide/notice-files/NOT-OD-25-100.html
  - https://gao.fo.uiowa.edu/nih-nrsa-childcare-costs

Additionally, NIH fellowship appointments, such as F and T32 Training Grant appointments, are taxed differently than Graduate Research appointments. It is recommended that you understand Fellowships and the payment rules for them. You can find additional information at this website:

https://hr.uiowa.edu/pay/payroll-services/tax-information/fellowship-payment-rules

For specific recommendations regarding taxes, it is best to contact a tax advisor. For general payroll and tax questions, you can contact <u>payroll-services@uiowa.edu</u>.

Currently enrolled University of Iowa Ph.D. students with a 25% or more appointment are employed as:

Teaching Assistants (FT19)

- Research Assistants (FR19)
- Graduate Student Fellow (FT52)
- Graduate students appointed on federal training grants or federal fellowships (FT52)

## a. Paid Leaves

Ph.D. students are entitled to University-designated holidays and up to (15) working days per fiscal year of absence without pay deduction. All paid leave must be scheduled with the approval of the research mentor. Extended leave must also be approved by the Program. Ph.D. students may be absent for the University-designated holidays unless the mentor specifically requires the Ph.D. student to work. At such time, the mentor and the Ph.D. student shall schedule alternate paid time off. Mentors will make an effort to minimize holiday work for Ph.D. students and if they require work on a holiday, shall provide Ph.D. student(s) with no less than thirty (30) days written notice, whenever feasible.

- i. University-designated Holidays:
  - i. New Year's Day
  - ii. Dr. Martin Luther King, Jr.'s Birthday
  - iii. Memorial Day
  - iv. Independence Day
  - v. Labor Day
  - vi. Thanksgiving Day
  - vii. Friday after Thanksgiving Day
  - viii. Christmas Day
  - ix. A day before or after Christmas Day

Monday will be recognized as a holiday for all holidays occurring on a Sunday and Friday for all holidays occurring on a Saturday.

Any further paid leave should have the additional approval of the program director, mentor, and program which may be granted without financial support by the program and director.

#### ii. Sick Leave

Ph.D. students may be absent due to illness without loss of pay not to exceed (18) days during a twelve-month fiscal year appointment.

If a Ph.D. student has exhausted paid sick leave due to illness, they may request an unpaid leave of absence which will be granted at the sole discretion of the Program and mentor, and subject to any relevant policies of the Graduate College.

## iii. Family Illness Leave

PhD students may use available sick leave for care of and necessary attention to ill or injured members of the immediate family or for parental leave including birth and adoption.

## iv. Bereavement Leave

Ph.D. students may use available sick leave for three (3) workdays when a death occurs in the employee's immediate family.

Ph.D. programs may grant additional paid leave - such leave may be granted provided the Program and mentor determine that the Ph.D. student is able to meet the time and effort obligations reflected in the percentage of appointment over the full term of the student's appointment.

## b. Unpaid Leave of Absence

A Ph.D. student may be granted an unpaid leave of absence during the term of their appointment, upon request to and at the sole discretion of the Program and mentor. Unpaid leave of absences will take effect after all available paid and sick leave has been exhausted.

The Program and mentor shall authorize leave requests in accordance with the provisions of the Family and Medical Leave Act of 1993 for qualifying individuals.

#### c. Tax Information

i. General Tax Information

To receive tax advice, students are advised to consult a professional income tax preparer. Information regarding how your paycheck may be impacted by taxes can be found on the <u>University Human Resources</u> website under tax information.

## ii. Summer Registration and Taxes

Graduate students in the Program normally do not register for summer term. There are four exceptions to this: (1) Some first-year students who may take courses during their first summer; (2) Students taking the Comprehensive Exam during the summer term; (3) Students who are defending their PhD during the summer term; and (4) Students who have Graduate College fellowships which pay for tuition (e.g. summer fellowship, Lulu Merle Johnson Fellowship, lowa Recruitment Fellowship). Outside of these exceptions, students will not register for the summer. (This policy is broadly in effect for all of the biomedical science advanced degree programs at the University of Iowa.)

Students should be aware that a tightening of IRS regulations has led to FICA withholding for summer stipend checks for students not registered for the summer term. The income loss can be substantial, depending on the student's particular circumstances.

iii. Training Grant & Fellowship Appointment and Taxes IRS tax laws do not tax Fellowship payments. For students who are on a training grant or other fellowship (e.g., T32, Post-comp fellowship,

Summer Fellowship, Ballard & Seashore Fellowship, etc.), it is recommended that you talk with a tax professional to determine the impact your appointment may have on your tax obligation. Information regarding taxes of Fellowship payments can be found on the <a href="University Human Resources website">University Human Resources website</a> under Fellowship Payment Rules.

iv. Training Grant & Fellowship Impact on Financial Aid If you are awarded Federal financial aid through the Office of Student Financial Aid, you should check with that office regarding the potential impact of training grant appointments and other fellowship's stipend and tuition on your financial aid award (loans, etc.). You may contact the office via email (financial-aid@uiowa.edu), telephone (319-335-1450) or walk-in (2400 UCC).

## d. Benefits

For health insurance benefits, there are currently two options offered to Univ of Iowa Graduate Students. These options provide comprehensive medical insurance for individuals and families at a low cost. The University has three open enrollment period for these plans and require graduate and health science majors to provide proof of coverage at the start of your appointment. Students may also change their coverage during a qualifying event.. The University Benefits Office should be contacted for additional information regarding benefits associated with this appointment at the following link: <a href="https://hr.uiowa.edu/benefits/ui-student-insurance">https://hr.uiowa.edu/benefits/ui-student-insurance</a>. University insurance contributions will start the first of the month after your appointment and submission of an initial insurance application. International students are required to have insurance prior to the start of classes, therefore your coverage, and associated charges, will begin August 1st.

# XX. Scientific Ethics: Guidelines and Other Resources

# a. Policy on Authorship of Publications

To merit authorship, an individual should:

- i. Contribute significant ideas and experimental design to the project,
- ii. Take part in the actual experimentation and data analysis,
- iii. Be able to present and defend the work at a scientific meeting. (Exceptions may be made when one author has carried out a unique, sophisticated study or analysis.)

Students should also read "Ethical Obligations of Authors" in Accounts of Chemical Research 18(12), pp. 356-57 (1985).

## b. Scientific Misconduct

The U.S. Public Health Service has a formal policy dealing with misconduct. It is described in a special July 19, 1985, issue of the NIH

<u>Guide to Grants and Contracts</u> and here: https://grants.nih.gov/policy/research-misconduct/index.

The Immunology Graduate Program agrees with and complies with this policy. It says in part:

It is the policy of the PHS to maintain high ethical standards in research and to investigate and resolve promptly and fairly all instances of alleged or apparent misconduct.

As defined by the policy, "misconduct" is: (1) Serious deviation from accepted practices in carrying out research or in reporting the results of research. This includes fabrication, falsification, or plagiarism of data. (2) Other examples include material failure to comply with Federal requirements affecting specific aspects of the conduct of research; e.g., the protection of human subjects and the welfare of laboratory animals.

Misconduct does not include errors of judgment, errors in the recording, selection, or analysis of data or differences in opinions involved in the interpretation of data.

Scientific misconduct is grounds for immediate dismissal from the Immunology Ph.D. Program. For additional information on University of lowa policy in this area see: <a href="https://opsmanual.uiowa.edu/community-policies/research">https://opsmanual.uiowa.edu/community-policies/research</a>.

## c. Academic Misconduct

Any form of cheating or plagiarism in respect to curricular requirements is grounds for dismissal. Plagiarism is taking another's ideas, words, or creative works and presenting them as your own, or presenting them without proper attribution (giving credit to the original source).

Use of artificial intelligence (AI) is not allowed on exams, papers, comprehensive exams, etc. It should not be used in the preparation or composition stages of these academic endeavors. Doing so would be grounds for dismissal from the program. Additional guidance on the use of AI in research can be found here: <a href="https://its.uiowa.edu/services/protecting-sensitive-data/using-artificial-intelligence-ai-tools-research">https://its.uiowa.edu/services/protecting-sensitive-data/using-artificial-intelligence-ai-tools-research</a>

## XXI. Academic Grievance

- a. <a href="https://grad.uiowa.edu/academics/manual/academic-grievance-procedure">https://grad.uiowa.edu/academics/manual/academic-grievance-procedure</a>
- b. Please see the appendix for more information on Procedures for Academic Grievances, unethical conduct, and violations of the Graduate College and Iowa Code of Conduct of Student Life.
- c. For a graduate student, the particular grievance procedure to employ for a complaint will depend upon the area involved (student life, academic difficulties, employment, etc.). Generally, graduate students first explore how to pursue a

grievance with their advisor/mentor of record or with an appropriate departmental/program administrator (department head, program director, and/or graduate coordinator). However, if students are uncomfortable or dissatisfied using this route, the CCOM Associate Dean for Graduate and Postdoctoral Studies and/or the Associate Dean for Academic Affairs of the Graduate College will counsel them on the options available. In addition, the Counseling Service, the Office of the Ombudsperson, and the Office of Civil Rights Compliance will counsel graduate students on a confidential basis and will assist them in selecting an appropriate grievance procedure.

## XXII. Sexual Harassment

The University of Iowa has clearly stated guidelines and regulations pertaining to sexual harassment. These rules are outlined in <a href="Chapter 4 - Sexual Harassment">Chapter 4 - Sexual Harassment</a> and <a href="Sexual Misconduct">Sexual Misconduct</a> of the University of Iowa Operations Manual.

# XXIII. Counseling Resources

The University of Iowa, Graduate College, and Immunology Graduate Program take mental health seriously. University Counseling Services offers a wide variety of confidential services. To make an appointment and find additional information about Counseling Services Resources on campus, visit <a href="https://counseling.uiowa.edu/">https://counseling.uiowa.edu/</a> or call 335-7294.

# XXIV.Office of the Ombudsperson

The Office of the Ombudsperson provides conflict management and problem solving to the entire campus community. Their services are confidential, neutral, informal, and independent. Appointments are suggested and can be scheduled by phone or by email, <a href="mailto:ombudsperson@uiowa.edu">ombudsperson@uiowa.edu</a>. Detailed information is available on their website: <a href="mailto:https://uiowa.edu/ombuds/">https://uiowa.edu/ombuds/</a>.

The Immunology PhD Program is committed to fostering a welcoming environment for all graduate students.

The Office of Civil Rights Compliance (OCRC) supports the university by providing all members of the community with expert advice, education, and services that ensure the university's compliance with all applicable federal, state, and university equal opportunity, affirmative action, nondiscrimination, sexual misconduct, Title IX and civil rights laws, regulations, and policies. Additional information can be found on their website: <a href="https://ocrc.uiowa.edu/">https://ocrc.uiowa.edu/</a>

# XXV. Appendix A

# **CCOM Office of Graduate and Postdoctoral Studies (OGPS)**

# Procedures for Academic Grievances, Unethical Conduct, and Violations of the Graduate College and Iowa Code of Student Life

(Date of Preparation: July 25, 2024)

## I. General Principles

The University of Iowa Code of Student Life, published each year as an insert to *The Daily Iowan*, governs student non-academic conduct (including graduate and postdoctoral students).

The Graduate College <u>Manual of Rules and Regulations</u> governs graduate and postdoctoral student academic conduct.

Research misconduct, such as the fabrication or falsification of data and plagiarism, is defined by the US Health and Human Services (HHS) Office of Research Integrity (<u>definition of misconduct</u>). Egregious acts of research misconduct may also result in additional action by the University of Iowa as stated in section 27.6, Ethics in Research, of the <u>University's Operations Manual</u>.

Graduate students in CCOM-affiliated departments and programs (including the Biomedical Science Program and its 7 subprograms; the Biochemistry and Microbiology Departmental Programs, and the 4 biomedical interdisciplinary programs (Genetics, Human Toxicology, Immunology, and Neuroscience) are expected to adhere to all sets of policy guidelines. Postdoctoral students in CCOM laboratories are expected to adhere to all sets of policy guidelines. Graduate students may be sanctioned or dismissed from their program in the event of policy violations. Postdoctoral students may be sanctioned or dismissed from their position in the event of policy violations.

Please contact the CCOM Associate Dean of Graduate and Postdoctoral Studies, your Graduate Program Director or Coordinator, or your Departmental HR Administrator, for further information about these policies.

#### II. Academic Grievances

The grievance procedure to employ for a complaint will depend on the area involved (student life, academic difficulties, employment, faculty). Generally, students first explore how to pursue a grievance with their mentor, PI, or with program leadership (Director of Graduate Studies, Program Director, Program Coordinator/Administrator).

An attempt should be made to resolve grievances at the lowest level, before escalating to higher levels. Nearly all grievances can be resolved at the level of the faculty member and student, or at the level of the Department. However, if students are uncomfortable

or dissatisfied using this route, the Associate Dean of Graduate and Postdoctoral Studies (ADGPS) can be contacted. (see figures at the end of this document for quick visual reference of grievance workflows)

If consultation with the Associate Dean of Graduate and Postdoctoral Studies does not lead to an appropriate or satisfactory resolution, the Associate Dean for Academic Affairs in the Graduate College will counsel students on further options. The Graduate College has established two complaint procedures:

- 1. Informal Academic Complaint Procedure of the Graduate College
- 2. Formal Academic Grievance Procedure (AGP) of the Graduate College

In addition, the <u>Counseling Service</u>, the <u>Office of the Ombudsperson</u>, and the <u>Office of Civil Rights Compliance (OCRC)</u> will counsel graduate students on a confidential basis and will assist students in selecting an appropriate grievance procedure.

The UI Postdoctoral Association is a resource for postdoctoral students.

## **III. Student Grievances about Faculty Members**

If a student has a grievance about a faculty member, they should first try to resolve the grievance directly with the faculty member, per the policies in II above. If that process is not available or successful, the grievance should be filed by emailing <a href="mailto:biomedgrad-postdoc@uiowa.edu">biomedgrad-postdoc@uiowa.edu</a> in order to trigger a department-level review of the faculty member. If students are uncomfortable or dissatisfied using this route, the Associate Dean of Graduate and Postdoctoral Studies (ADGPS) can be contacted.

If consultation with the ADGPS does not lead to an appropriate or satisfactory resolution, the Associate Dean for Academic Affairs in the Graduate College will counsel students on further options, per II above. Beyond that, the grievance can be escalated to the Office of the Provost or the Board of Regents. In CCOM, grievances towards faculty members will also be reviewed by the Associate Dean for Faculty Affairs, and further follow-up from that Office may occur. HR sensitive faculty issues will remain confidential.

# IV. Academic Integrity

Integrity is a core value of the University of Iowa and the CCOM. At the University of Iowa, we hold ourselves to the highest standard of professional and scholarly ethics, are accountable for our decisions and actions, exercise responsible stewardship of the resources with which we are entrusted, and treat one another with honesty and fairness. **Academic integrity** embodies the principles of honesty, fairness, responsibility, and respect, forming the foundation of ethical scholarship and intellectual growth. Upholding academic integrity is not only essential for maintaining the credibility and integrity of the academic community but also for nurturing individuals who contribute positively to society through their knowledge, skills, and ethical conduct. **Academic and research misconduct** undermine the efforts and achievements of other students, erodes the trust and credibility that society places in educational institutions and science, and can have lifelong consequences for the individuals involved.

Academic integrity is a teaching and learning issue, and our policies and procedures are written in that spirit. Academic misconduct can involve many gray areas. The ways that students are allowed to work with other classmates or utilize additional resources can differ between courses which can lead to confusion. **Instructors** are responsible for making expectations regarding academic integrity and academic misconduct clear and explicit to students in the course syllabus, assignment instructions, and exam instructions. **Principal Investigators (PIs)** are responsible for making expectations related to research misconduct clear to their trainees. **Students** are responsible for actively seeking clarification from their course instructors and principal investigators if they are uncertain about whether a situation might involve academic/research misconduct.

# V. Academic/Research Misconduct Reporting Procedures, Sanctions, and Appeals

# A. Reporting Academic/Research Misconduct

University of Iowa Colleges track offenses on a shared database, with academic/research misconduct reports thus shared across UI colleges and with more severe consequences for repeat violations.

Incidents of academic/research misconduct will be investigated and reported in a manner that ensures due process and fairness.

- Instructors/PIs: Instructors/PIs are required to report incidents of academic/research misconduct by filing a violation report (email: biomedgradpostdoc@uiowa.edu and notifying the accused student in writing and contacting the student's program director. Instructors/PIs are encouraged to maintain documentation of all communication with students accused of academic misconduct.
- Students: a student who witnesses an incident of academic/research misconduct
  is expected to report the violation to the course instructor/PI. During any
  investigation, the reporting student may be asked for additional information. The
  confidentiality of the reporting student will be protected to the greatest extent
  possible; however, confidentiality cannot be guaranteed in all cases.

Reports of academic misconduct are shared with the Graduate College, the Associate Dean in OGPS, the Director of Graduate Studies or Program Director, and Departmental Executive Officer (DEO, Department Head) in the student's home department. If the case involves founded allegations of research misconduct, the Office of the Vice President for Research (OVPR) is notified. Misconduct investigation records are not transferred to the student record in MAUI. However, depending on the result of a case (e.g., dismissal/expulsion), a dean's level note acknowledging misconduct as the reason for dismissal/expulsion may be added to the student's MAUI advising notes. Access to dean's level MAUI advising notes is highly restricted and campus advisors (e.g., DGS, DEO, Graduate Program Coordinator, faculty advisors) do not have access to these notes. Notes associated with misconduct are not recorded on the student's transcript. Records of misconduct violation(s) will be kept for seven years or until the student graduates, whichever comes first.

## **B. Misconduct Procedures and Sanctions**

In the event that academic/research misconduct is suspected, the following procedures will be followed:

#### Course-Level/Lab-Level Procedures

- An instructor/PI who suspects a student of an incident of misconduct will investigate whether the suspected misconduct has, in fact, occurred.
- Instructors/PIs who intend to report a student for misconduct should inform
  the student about their concerns. The instructor/PI will make reasonable
  attempts to arrange a meeting with the student as soon as is feasible to clarify
  the situation and to discuss specifics of the incident. The student should be
  provided the opportunity to respond to the allegation. If the student does not
  respond or chooses not to meet with the instructor, the instructor/PI should
  proceed with sanctioning the student (see below) and reporting the incident.
- If the meeting between the instructor/PI and the student ultimately results in no sanction (e.g., grade reduction) because the allegation of academic misconduct is not supported, then the process will be considered completed. No additional reporting will be required, nor will there be any information related to the situation entered into the student's record.
- If after meeting with the student the instructor/PI determines that the
  allegation of academic misconduct is founded, then the instructor/PI will make
  a decision regarding whether or not a sanction (e.g., grade reduction) will be
  applied and report the allegation by filing a violation report.
  - If the instructor/PI decides not to apply a grade sanction (e.g., issues a warning or provides the student with learning opportunities to address any misunderstandings of misconduct), the incident must still be reported at the level of the program (program director and/or DGS).
  - Examples of Course-level Sanctions. In the case of academic misconduct that is related to a course, the instructor will determine the appropriate sanction. Sanctions may include but are not limited to:
    - Failing the assignment or assigning a lower grade than otherwise would have been given for the assignment.
    - Requesting a revision of the work in question and accepting the revision for grade assignment.
    - Failing a student for the course (must only be considered in consultation with the departmental/programmatic administrative home for the course)
- The student may:
  - Accept responsibility and the instructor's/PI's sanction.
  - Accept responsibility but appeal the instructor's/PI's sanction. Reasons could include inequitable enforcement of the sanction, the sanction is too severe, or the sanction is out of alignment with stated policy in the syllabus.
  - Deny responsibility for the violation and appeal the instructor's/PI's sanction.

 Sanctions are the responsibility of the instructor or department/program, and sanctions must be implemented, monitored, and enforced at the instructor or departmental/program level. If a case is appealed to a higher office (e.g., OGPS, Graduate College, Office of the Provost, Iowa Board of Regents), the decision reached by that office must be executed by the department/program (for department-level sanctions) or by the instructor/PI (for course-level/lablevel sanctions).

# Student Appeals of Course-Level Sanctions

- If the student has any questions about the appeals process, then they should contact their Graduate Program Coordinator or Program Director to learn their departmental/program appeals process. The student may also choose to discuss their situation confidentially with a representative of the Office of the Ombudsperson.
- Appeals must be in writing to the DEO (Department Chair) of the department in which the course is offered within 30 calendar days of written notification of the instructor's finding. An email to the DEO is sufficient.
- The DEO will review the case and submit a decision letter to the student and to the Program Director of the student's program.
- If the student is not satisfied with the DEO's decision, the student may then request a review by the Associate Dean in OGPS in CCOM. The request must be written within 30 calendar days of receiving the DEO's finding. An email to the Associate Dean is sufficient.
- The Associate Dean will review the case and submit a decision letter to the student and to the Program Director of the student's program.
- If the student is not satisfied with prior decisions, then the student has the right to appeal to the Associate Dean for Academic Affairs of the Graduate College, followed by the Office of the Provost, and finally up to the Iowa Board of Regents.
- The instructor should send copies of the final determination document to the student, the department/program. The instructor should send a copy of the final determination document to <a href="mailto:biomedgrad-postdoc@uiowa.edu">biomedgrad-postdoc@uiowa.edu</a> and they should notify any additional offices that have been involved in the appeals process that a decision has been reached.
- When a conflict of interest in the chain of appeals is identified (e.g., the DEO or Associate Dean is also the student's instructor, advisor, or supervisor), then an appropriate substitute to hear the appeal will be made.

**NOTE**: The course-level policies and procedures described above can be extended to non-course or lab-based situations, such as but not limited to the qualifying exam, comprehensive exam, prospectus defense, dissertation defense, seminars, and poster presentations. In these instances, the supervising faculty member, the committee, or others may report the alleged misconduct according to the procedures noted above. If the misconduct is founded, then the supervising faculty member and/or the student's committee will determine the appropriate sanction. Sanctions may include but are not limited to:

- Requesting a revision of the work in question and accepting the revision in order to receive a passing grade on the assessment.
- Failing a student on the assessment.

Supervising faculty members and/or committees are responsible for making expectations regarding academic integrity and academic misconduct clear and explicit to students.

# **Departmental Procedures**

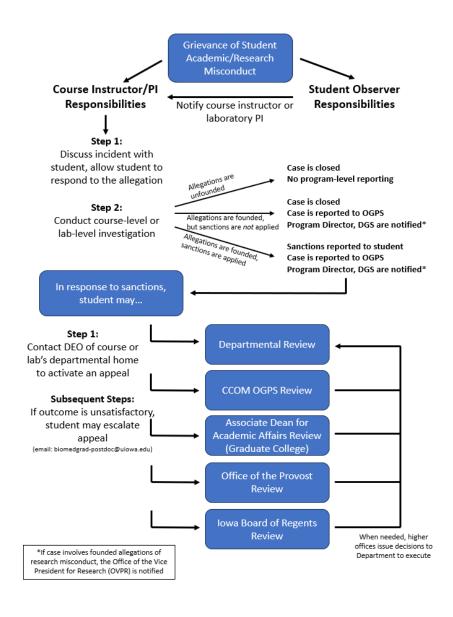
In the event that academic misconduct is founded, the student's home department/program will make a determination as to whether or not additional sanctions will be applied by the department/program according to the following procedures:

- Following a report of academic misconduct, a review committee of 2-3 primary faculty members will be appointed by the DEO, with one member designated as the chair. A meeting will be convened to allow the student an opportunity to discuss the alleged misconduct. The committee will meet to review the available evidence. After the committee has reviewed the report, the committee may assign the student additional sanctions (see below for examples) based on the severity of the offense and the number of previous offenses by the student reported to the department.
- <u>Examples of Departmental Sanctions</u>. Academic misconduct can involve
  many gray areas and borderline situations. In these cases, the department
  might combine or change the sanctions listed below so that they better fit the
  situation. At the department's discretion, egregious acts of misconduct may
  lead to more severe sanctions than suggested below even for a student's first
  or second report of misconduct.
  - For first report The student receives a warning letter in which they are notified of the consequences of any additional offenses related to academic misconduct. The student is required to meet with the Director of Graduate Studies and/or Department Chair (DEO) to discuss the alleged violation(s) and departmental expectations regarding academic integrity. A summary of the violation report will be provided to the student. During the meeting, the DGS and/or DEO will review the sanction imposed by the instructor, review departmental sanctions, and review the appeal process and the deadline to appeal.
  - For second report The department may require the student to enroll in a non-credit <u>academic integrity seminar</u>. The seminar is completed online, and most students complete the assigned readings and assignments in about 5-15 hours. The student will be charged a course fee of between \$100 and \$200.
  - For additional reports In addition to any penalties listed above, the department may dismiss the student from the graduate program or recommend expulsion from the University. Decisions to dismiss a student from the graduate program or expel the student from the University are made in consultation with the Associate Dean for Academic Affairs of the Graduate College. Dismissal from the program/department may not automatically dismiss a student from the Graduate College.

Students who fail to complete any of the assigned sanctions may be restricted from course registration in future semesters. Degree conferral may be held for students in their final semester of enrollment until they complete their assigned sanctions.

# Student Appeals of Departmental Sanctions

- If the student has questions about the appeals process, they should contact the Graduate Program Coordinator or Program Director. The student may also choose to discuss their situation confidentially with a representative of the Office of the Ombudsperson.
- Appeals must be in writing to the Associate Dean for OGPS in the CCOM within 30 calendar days of written notification of the department's finding. An email to the AD is sufficient.
- The AD will review the case and submit a decision letter to the student and to the Program Director
- If the student is not satisfied with the AD's decision, then the student has the right to appeal to the Associate Dean for Academic Affairs of the Graduate College, followed by the Office of the Provost, and finally up to the Iowa Board of Regents.
- The AD will send copies of the final determination document to the student, the department, and any offices that have been involved in the appeals process. In addition, the AD will file the final determination document.
- When a conflict of interest in the chain of appeals is identified (e.g., the AD is also the student's advisor or supervisor), then an appropriate substitute to hear the appeal will be made.



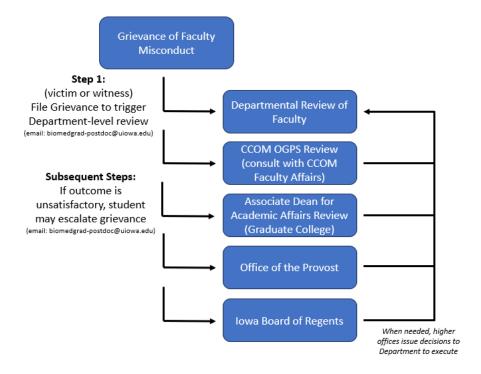


Figure 1: Workflow for grievances related to student misconduct.

Figure 2: Workflow for grievances related to faculty misconduct.