



# Immunology Graduate Program

SCHOOL OF MEDICINE

UNIVERSITY OF COLORADO **ANSCHUTZ MEDICAL CAMPUS**

## 2024-2025 Student Handbook

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## Introduction

Welcome to the Graduate Program in Immunology at the University of Colorado Anschutz Medical Campus. This handbook provides information about the Immunology Graduate Program and is designed to complement Graduate School Student policies. Please refer to the Graduate School webpage for specific Graduate School and Office of Research Education policies and procedures.

The material contained within this handbook is as current as possible and describes the Immunology Program specific policies and procedures that **supersede** those outlined by the Graduate School. Please be aware that our program continues to evolve. Hence, specific policies may be altered and material here may not always be current.

This handbook, which includes policies and procedures for the Immunology Graduate Program, is provided to serve as firm guidelines rather than absolute rules. Exceptions may be made in the event of an extenuating circumstance. This handbook does not constitute a contract with the Immunology Graduate Program, the Department of Immunology & Microbiology, or the University of Colorado Denver Anschutz Medical Campus, or Graduate School, either expressed or implied.

The Immunology Graduate Program reserves the right at any time to change, delete, or add to any of the provisions at its discretion with approval from the Program Directors and/or the steering committee members. Any exceptions to the the Immunology Graduate Program policies contained herein require approval by the Directors of the Immunology Graduate Program. Additional information can be found at the Program website:

<https://cuanschutz.edu/graduate-programs/immunology/home>

The Graduate School policies can be found here:

<https://graduateschool.cuanschutz.edu/docs/librariesprovider138/denver-anschutz-graduate-school/resources/gs-policies-and-procedures.pdf>

The Office of Research Education polices can be found here:

<https://medschool.cuanschutz.edu/ore/forms-and-resources>

The Graduate School Course Book by the University of Colorado Anschutz Medical Campus can be found at <https://cuanschutz.edu/registrar/catalog>

Before the first day of class, all new graduate students should attend the University of Colorado Anschutz Medical Campus orientation. This orientation is mandatory and will provide you with valuable information regarding student insurance, research ethics and animal facility training.

**Students are responsible for knowing the procedures, policies and requirements outlined in all these publications.**

Contact the Immunology Program Administrator or the Immunology Graduate Program Directors, with any questions.

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	Chung, Jeffrey	2016 (BSP)	Jacobelli
	Cimons, Jennifer	2017 (BSP)	Fry
	Willett, Benjamin	2017	Kedl
	DeVoe, Stephanie	2018	Scott Browne
	Heiden, Dustin	2019	Beckham
	Sigler, Ashton	2019	Jacobelli
	Abushawish, Marwan	2020	Scott Browne
	D'Antonio, Marc	2020	Torres
	DiLisio, James	2020	Haskins
	Kantheti, Uma	2020 (MSTP)	Tamburini
	Kashyap, Amita	2020 (MSTP)	Reinhardt
	Leaton, Laura Ann	2020	Norman
	Alexander, Bridget	2020	Smith
	Danielson, Sarah	2020	Kuhn
	Albert, Gabriella	2021	Davila
	Belfon, Robert	2021 (BSP)	Tamburini
	Cedrone, Lena	2021	Haskins
	Chaudhury, Uddeep	2021	Berg
	Michaels, Mary (MJ)	2021	Berg
	Gomez, Brittany	2021	Van Dyk
	Good, Marina	2021	Guthmiller
	Magno, Joseph	2021	Davila
	Rios-Guzman, Nasha	2021 (BSP)	Nakayama
	Riveria-Reyes, Amalia	2021	Fry
	Stumpf, Megan	2021	Morrison
	Beynor, Jessica	2022 (MSTP)	Fujita
	Cohen, Rachel	2022 (MSTP)	Colgan
	Cowan, Courtney	2022	Pietras
	Fang, Qian	2022	Rincon
	Good, Marina	2022	Guthmiller
	Harbell, Michael	2022	Kedl
	Hilliard, Brandon	2022 (MSTP)	Smith
	Manes, Cameron	2022	Kedl
	Olivias-Corral, Jesscia	2022 (BSP)	Tamburini
	Stenske, Sarah	2022	Scott Browne

	Trujillo, Emma	2022	Ost
	Ye, Kimmy	2022	Evans
	Bedrosian, Zoe	2023	Berg
	Fleck, Jeremy	2023	Lenz
	Prendergast, Jessica	2023	Smith
	Lim, Laura	2023	Jonsson
	Miranda, Anjelica	2023	Pelanda
	Mansoor, Mohammad	2023	Hsieh
	Olsen, Valerie	2023	Tamburini
	Celli, Sofia	2024 (MSTP)	Norman
	Burciaga, Samuel	2024 (BSP)	Fry
	Vazquez, Angie	2024 (BSP)	Kohler
	Romo-Perez, Yuliana	2024 (BSP)	
	Vankamamidi, Sai Eashan	2024	
	Ghebreslassie, Tomas	2024	Thurman
	Mussallem, Lily	2024	
	Vigil, Isaac	2024	
	Arce, Kat	2024	
	Thompson, Ashley	2024	
	Atencio, Lauren	2024	Keestra-Gounder
	Khammash, Hadeel	2024	
	Fairweather, Kayla	2024	

## **Committees and Officers**

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Leslie Berg, PhD- Preliminary Exam Chair

Eric Clambey, PhD- Comprehension Exam Chair

Sarah Clark, PhD- ORE Graduate School Council-Faculty recruiting?

Rachel Friedman, PhD- Admissions co-Chair

Bill Janssen, PhD- Faculty Recruitment/retention co-Chair

Ross Kedl, PhD- co-Program Director

Kristine Kuhn, PhD- ORE Graduate Council

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### **Immunology Graduate School Board Officers 2024-2025**

Please see the list of student officers on the Program Website:

<https://www.cuanschutz.edu/graduate-programs/immunology/about>

## Immunology Graduate Program Faculty

Training faculty in the Immunology graduate program are expected to actively participate in teaching and service activities as a condition of their appointment. Examples of participation include lecturing in or directing an Immunology course, serving on Immunology PhD student thesis committees (including those for student comprehensive exams), serving on other program committees, attending research in progress (RIP) presentations and retreats, attending events associated with student recruitment, and/or other Immunology student-focused activities. The program faculty appointment committee regularly surveys training faculty to confirm they remain active in the program and thus eligible for continuation of their appointment. Faculty listed below are currently active in program activities.

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# PROGRAM REQUIREMENTS AND CURRICULUM

## Coursework and Registration

### Registering for Classes

<https://cuanschultz.edu/registrar/register/register-for-classes/register-for-classes>

**First year students.** A rotation lab must be chosen before the start of each rotation and notify the program director and the program administrator. New students are strongly encouraged to discuss potential rotation labs with their student advisory committee mentor (SAC).

**Second year students.** Prior to registering for Fall semester, the Preliminary Examination must be passed, a thesis laboratory chosen, and continuation approved by the Graduate Program co-Directors. Prior to registering for the Summer semester, a Thesis Advisory Committee meeting must be held, and the Comprehensive Exam passed.

**Third year students and beyond.** Students must be current with Thesis Advisory Committee meetings prior to registering each semester. (Thesis Committee meetings for students in the 3rd year and beyond must be held **every six months** unless another time frame is specified by their Committee Chair.)

### Courses

The Program Curriculum and Graduation requirements are 30 semester credit hours of coursework and 30 semester credit hours of thesis credits. All required course work should be completed before the end of the second year. Changes in the overall structure of the program may occur. This summary reflects the current requirements.

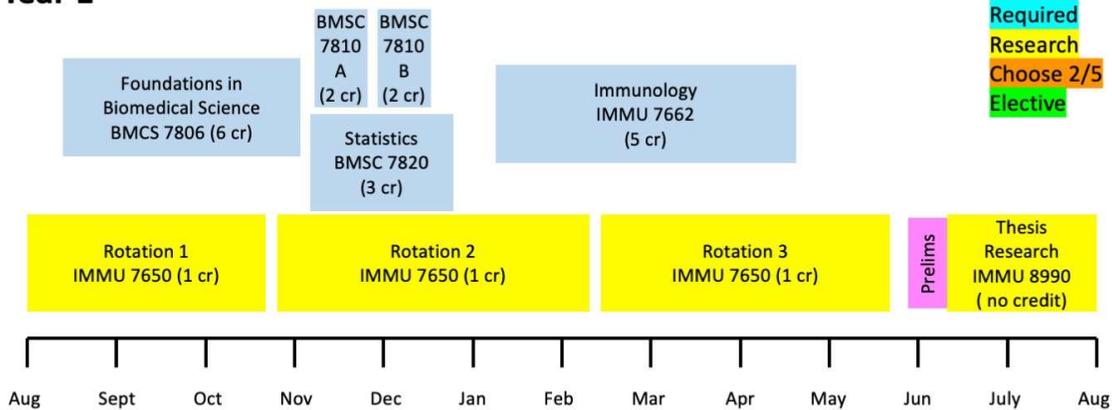
To register, please click on the link below using your university credentials and navigate to the registration page. <https://portal.prod.cu.edu/UCDAccessFedAuthLogin.html> The UCDAccess provides How To instructions inside the Portal.

For questions, please contact: <https://cuanschultz.edu/about/contact-us>

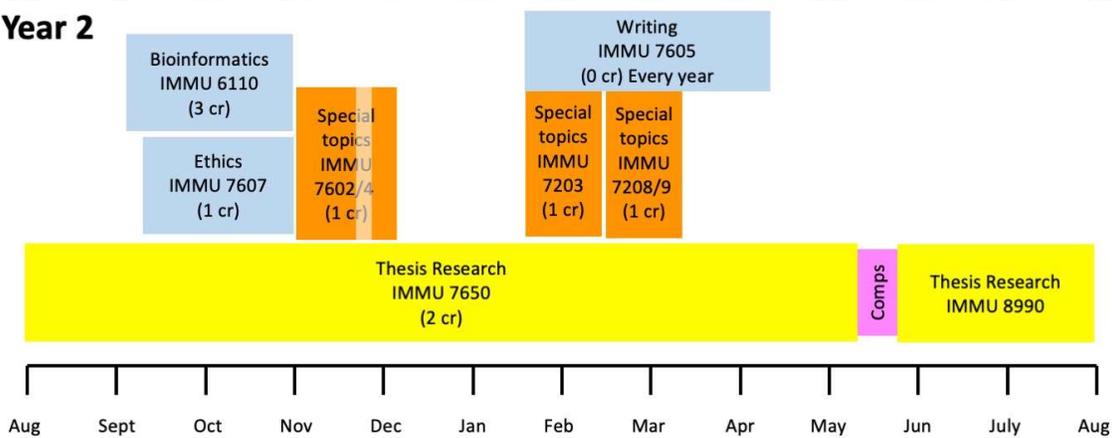
### Required Courses

Students need to take 2 out of 5 special topics courses. They can complete all their classes in 2 years if they plan well. However, four of the special topics courses are only available every other year, so students might have to wait a year for a specific class. Additionally, if fewer than 4-5 students sign up for a course, the instructor might cancel it for that year. To avoid this problem, we'll ask students for their class preferences at the end of their first year. See details on the calendar on the next page.

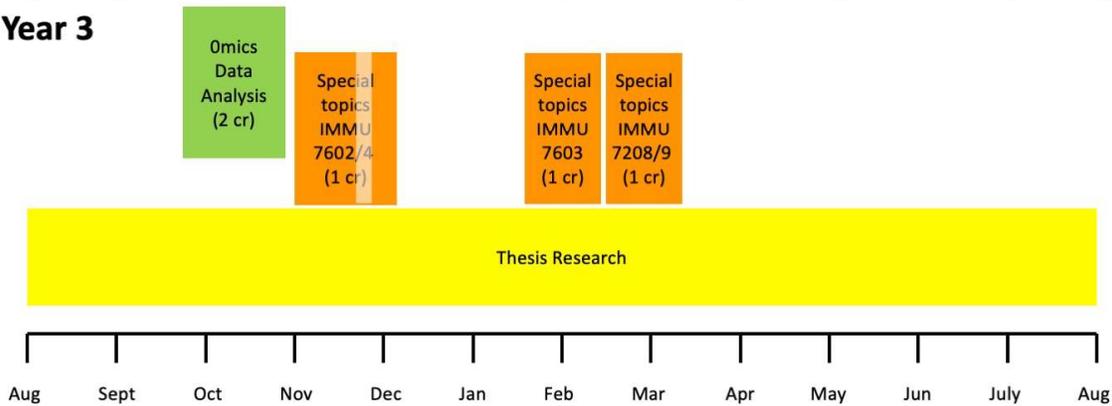
## Year 1



## Year 2



## Year 3

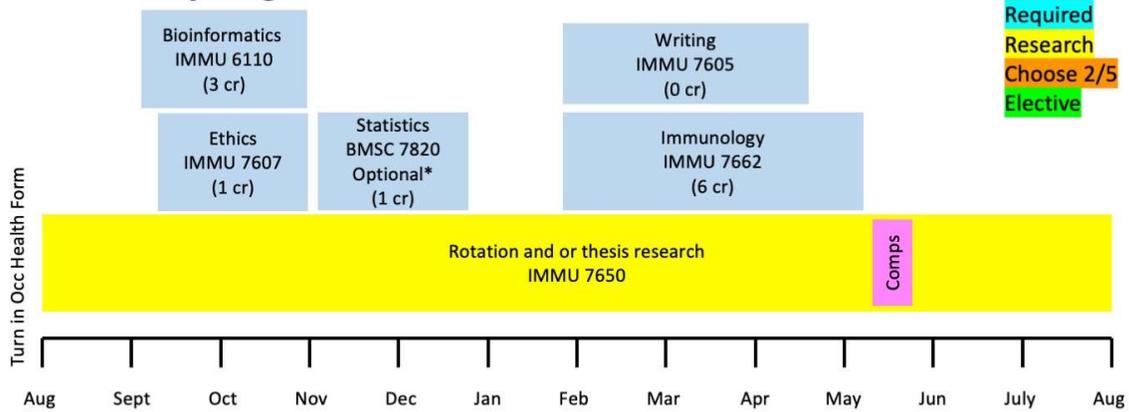


### Key to special topics classes

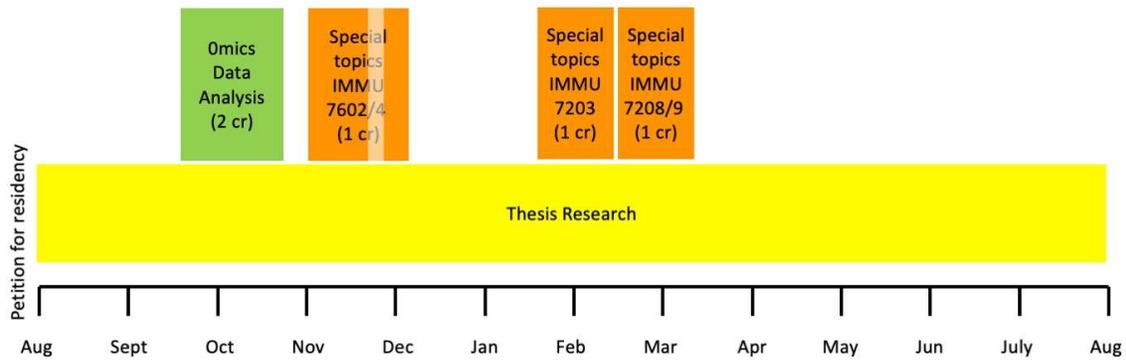
- 7602 Tumor immunology (Even years)
- 7603 The immunologic basis of human disease (All yrs)
- 7604 Signaling (Odd years)
- 7608 Autoimmunity (Even years)
- 7609 Infection (Odd years)

8990 is **not** didactic  
7650 worth **any** number of credits

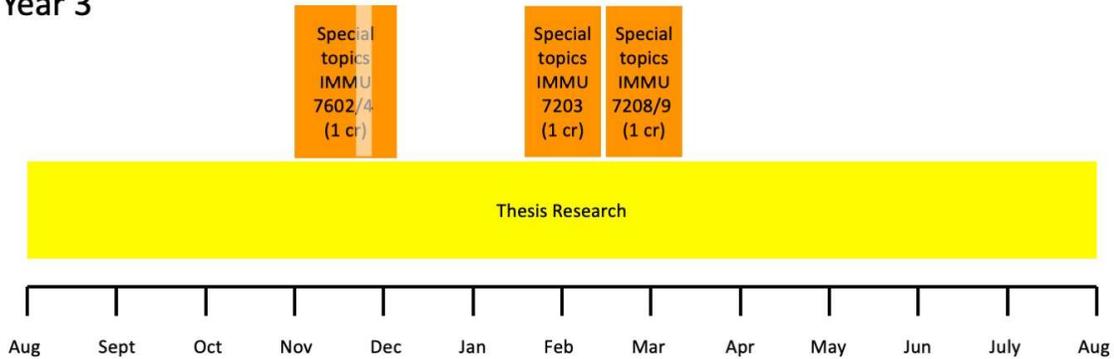
## MSTP First year grad school



## Year 2



## Year 3



### Key to special topics classes

7602 Tumor immunology (Even years)

7603 The immunologic basis of human disease (All yrs)

7604 Signaling (Odd years)

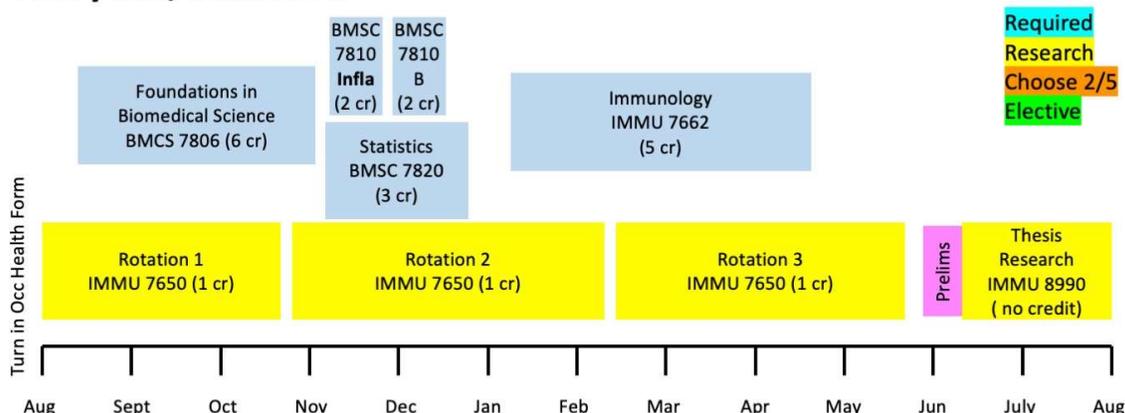
7608 Autoimmunity (Even years)

7609 Infection (Odd years)

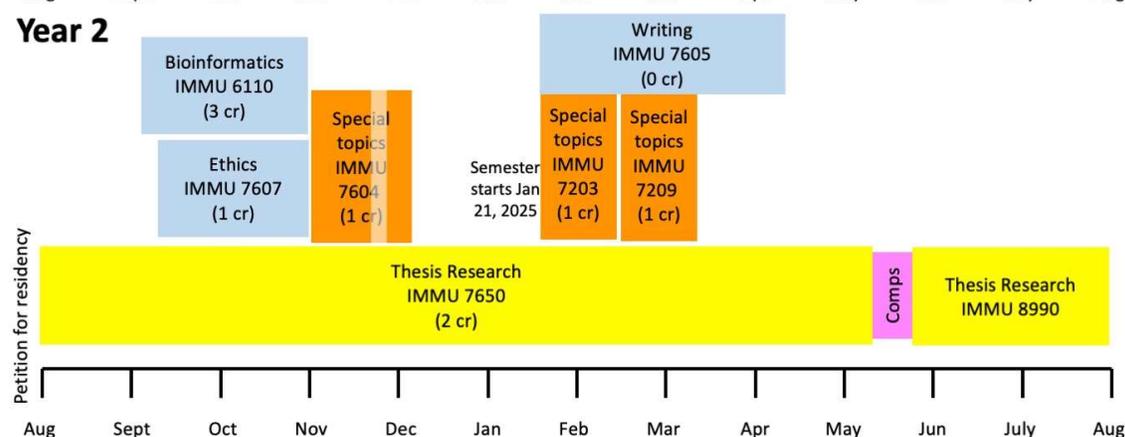
8990 is **not** didactic

7650 worth **any** number of credits

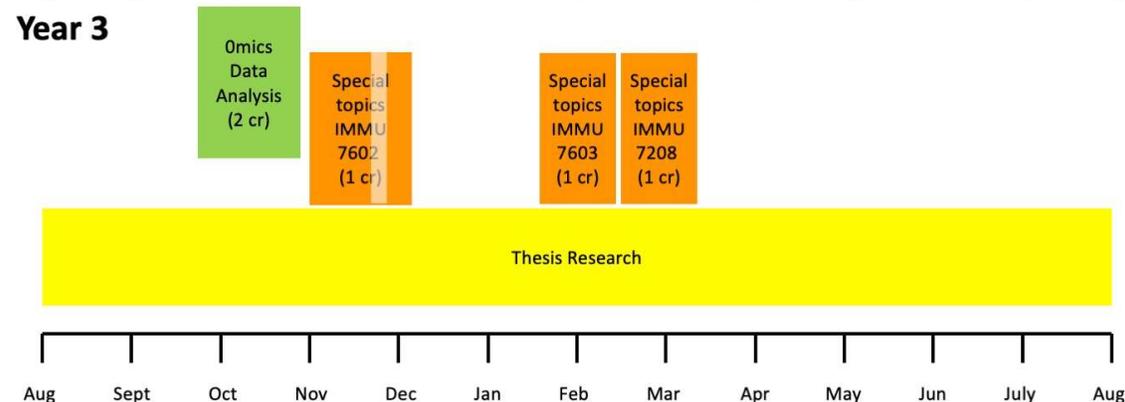
## First years, Years 2024



## Year 2



## Year 3



### Key to special topics classes

7602 Tumor immunology (Even years)

7603 The immunologic basis of human disease (All yrs)

7604 Signaling (Odd years)

7608 Autoimmunity (Even years)

7609 Infection (Odd years)

8990 is **not** didactic

7650 worth **any** number of credits

## **Elective Courses**

The courses may change from year to year. Students completing the required courses will have accumulated the necessary 30 semester hours of didactic course work and will not need to complete additional course work. However, electives are available but must be approved by the thesis advisor and should be approved by the written permission of the Graduate Program Steering Committee.

All students must be continually registered for 5 thesis credits (IMMU 8990) upon completion of the Comprehensive exam except during the summer semester when students should register for 1 credit hour of IMMU 8990. Continuous registration is Fall and Spring semesters each academic year, beginning with the summer semester. Non-registration for two consecutive semesters is not allowed.

\*\*Students transferring to Immunology from the Biomedical Sciences (BSP) or Medical Scientist Training (MSTP) programs may have different credit/course requirements. Applications for transfer will be evaluated based on thesis lab availability, transcripts, and performance on the preliminary exam and in rotation labs. It is important to understand that transfer from either program into the Immunology program depends on an Immunology faculty member agreeing to accept the student into her/his lab for their thesis work.

\*\*Students may request to transfer credit of previous graduate work into the Program, upon satisfactory completion of at least one semester in Graduate School at the University of Colorado Anschutz Medical Campus as a regular degree student. Grades in the courses requested for transfer must be no lower than B. Please contact the Program Administrator for additional requirements/policies. The Graduate Program will not consider transfer of credit for the required Core Immunology sequence.

## Laboratory Rotations

Students must complete three rotations in different Immunology faculty laboratories within the first year (Fall through Summer). Each rotation is typically 11-weeks long and 1 credit hour. Your work in this rotation is evaluated and graded. To arrange a rotation, each student should discuss potential projects first with the prospective advisor(s) and the student and advisor should come to a mutual decision. Direct Admit students will not rotate through labs and will spend their laboratory work time in their mentor's lab.

**Students must inform the Program Administrator of the lab in which rotations will be conducted at the beginning of each rotation to ensure proper tracking and progress.**

Because these rotations are the primary means for each student to become acquainted with the range of techniques, scientific interests, administrative styles, and personalities of each lab, the selection of a rotation lab each semester should be a systematic process. Another major goal of the rotation is to enable a student to select their thesis lab. Therefore, a student may only perform rotations with faculty who have regular appointments in the Graduate School. If a student wishes to rotate in a laboratory of a faculty member with a special appointment in the graduate school, then a co-mentor with a regular appointment must be chosen. Rotations with faculty who are not members of the Immunology Graduate Program must be approved by the program director. ***Students must seek the advice of the Program Directors (Ross Kedl or Beth Tamburini) or First Year Student Advisory Committee (Beth Tamburini, Marijke Keestra-Gounder, or Andrew Getahun) when considering potential laboratory rotations.***

The other purpose of the rotation is so that faculty can assess and gauge the student's ability, engagement and enthusiasm for research. Thus, these rotations provide information to the faculty and enable them to determine whether they would accept the student into their laboratory for thesis work. NOTE: IT IS THE STUDENT'S RESPONSIBILITY TO PERFORM WELL DURING THESE ROTATIONS SO THAT THEY CAN NOT ONLY IDENTIFY LABORATORIES THAT THEY ARE INTERESTED IN, BUT ALSO IMPRESS FACULTY SUFFICIENTLY SO THAT THE FACULTY MEMBER IS WILLING TO SERVE AS THEIR MENTOR. ***ENTRANCE INTO A THESIS LAB IS NOT GUARANTEED. IT IS THE STUDENT'S RESPONSIBILITY TO FIND A THESIS LAB AND FACULTY ADVISOR.*** At the completion of each rotation, each student is expected to present a short talk in their respective lab meeting, summarizing the experimental problem addressed, the techniques used to approach it, and data obtained during the rotation. The rotation advisor must complete an online evaluation of the student's performance after the rotation and should discuss the evaluation with the student. The evaluation will be saved online as part of the student's academic record.

† For a current list of faculty with Graduate School appointments please visit: <https://cuanschultz.edu/graduate-programs/immunology/faculty>

## Beginning Fall 2024

The Office of Research Education has launched a new rotation form, which will automate the collection of student rotations and performance evaluations. The goal of this form is to standardize the collection of rotation data across programs and ensure we can add accurate and complete information to student records within CUSIS – Student Progression Milestones (a replacement for GAIA).

Outlined below are the steps of the automated form process, and the bolded steps will be completed by you as the student.

1. **Students initialize the process by selecting the mentor with whom they would like to rotate. This step includes program dependent questions for the student to answer, such as rotation goals. Follow your program specific timeline when submitting this form [Rotation Form Link](#)**
2. The form is automatically routed via email to the selected mentor. The mentor will read over the student's proposal and indicate via yes/no and a signature if they accept the proposed rotation.
3. The form is automatically routed via email to the student's program director for final approval. All parties are notified of the approval.
4. A week before the end of the rotation period, the mentor will receive an email notification with a link to the student's original proposal and a rubric. The mentor will use the rubric to assess the student's performance during the rotation.
5. A copy of the Post-Rotation Assessment will be sent to the student, program director, mentor, and program administrator.

**Please note:** This system contains sensitive student data; therefore, you will be required to be on campus or connected to VPN in order to access the forms.

## **Conflicts of Interest**

The Immunology Graduate Program seeks to avoid actual and perceived conflicts of interest, to ensure fairness and equity throughout graduate student training. This principle applies across all phases of the graduate student experience, including, but not limited to, the following:

- i) For Preliminary and Comprehensive exams, any individual with a real conflict-of-interest (e.g. financial interest or a spouse of the mentor or student) should not serve on a student's examining committee.
- ii) For Thesis advisory committee, any individual with a real conflict-of-interest (e.g. financial interest or a spouse of the mentor or student) cannot be a voting member of the committee. Conflicted individuals may still participate in committee meetings but must leave the room with the mentor or student, as appropriate. In addition, a majority of members should not have direct involvement in the student's project or be a close collaborator of the mentor.
- iii) Instances where a student is concerned about an unresolved conflict of interest should be brought to the attention of the Immunology Program Directors.

## Preliminary Exam Guidelines

At the end of the first year of coursework, students take a preliminary exam to assess their mastery of immunology and to prepare themselves for proposal writing in their comprehensive exam and beyond.

### Preliminary Exam

The Immunology Program Curriculum Committee: Preliminary Exam Committee administers immunology preliminary exam. The content and format of the exam is subject to change year to year, but will focus on examining the student on the concepts and information learned during the first year.

The purpose of this exam is to test a broad understanding of immunology and immunological concepts derived primarily from the graduate immunology required coursework. It is important that prior to planning any time away at the end of the first year you are aware of the current year date for the Preliminary Exam.

### IMMU Preliminary Exam Guidelines

All IMMU students will complete the Preliminary Exam at the end of their first year of coursework. Students will be provided with three research topics/prompts and a review article to guide the students. Students will choose one of the research topics to base their Preliminary Exam on. The written component of the Preliminary Exam consists of a short mini-grant proposal, which will be due 2 weeks after the topics are handed out. One week after submission of the written proposal, students will have an oral exam administered by three faculty members. This timeline is firm and extensions will not be provided. Failure to turn in the exam by the deadline will result in an incomplete for the written portion of the exam and remediation will be required as determined by the curriculum committee and the program directors.

Preliminary exam topics will be based on recent review articles in Current Opinion in Immunology (<https://www.sciencedirect.com/journal/current-opinion-in-immunology>). Three review articles will be chosen each year; one will focus on innate immunity and/or inflammation, one on B cells, and one on T cells. Each review article will be the basis for a research topic 'prompt,' provided in the form of a question.

The proposal format is as follows: a minimum of 2 pages and a maximum of 3 pages, single-spaced, in Arial 11pt font, with 1" margins all around. The proposal also must include a bibliography for references cited and a model figure. The bibliography and model figure are NOT included in the 3-page limit. The mini-proposal should include the following sections:

1. Background (~2/3 page)
  - a. Synthesis of key pre-existing literature
  - b. Statement of unanswered question(s)
2. Rationale and Hypothesis (2-3 sentences)
  - a. Rationale for proposed experiment(s)
  - b. Hypothesis being tested
3. Experimental plan (1-1.5 pages)
  - a. One Specific Aim
  - b. Experiment(s) to test aim

- c. Predicted outcomes and Interpretations
  - d. Alternative approaches
4. Bibliography of references cited and a model figure

The oral exam will be 1-hr in length. Students should prepare a 5–7-minute presentation, with no more than 6 slides, that covers key points of the proposal. After this introductory presentation, the remainder of the exam will take place without any audiovisual aids (i.e., no further slides allowed).

Students will be evaluated on both the written and oral components of the exam based on the preliminary exam rubric; see Appendix 1. The exam is designed to test each student's understanding of key concepts and ability to think through experimental design, both of which are important for research in biomedical sciences, with a focus on immunology. While the focus of the questions will be related to the written proposal, students should expect questions outside the immediate scope of written proposal. All questions, however, will be limited to the material that the student was exposed to during courses and rotations that they had within the first year of the graduate program.

1. After each exam, the exam committee will deliberate and come to a consensus score in each of the 4 areas described in the rubric. Those scores, along with any comments, will be provided to each student at the end of the exam day. If a student scores a 1 in any area of the rubric, that will trigger a need for remediation in that area. If a remediation is needed, it will be individually tailored to that area and each student's needs and should be completed before the beginning of the next academic semester.

# Comprehensive Exam Guidelines

## General Information

### *Purpose*

- The purpose of the Comprehensive exam is to test the student's knowledge and ability to critically think as they progress through the Immunology graduate program. This exam includes both a written proposal and an oral defense.
- The Comprehensive Exam ensures that there are no concerns that would preclude the student from formal admission to candidacy for a Ph.D. at the University of Colorado. After successful completion of the comprehensive exam, the student focuses on the laboratory component of their thesis research.
- The Comprehensive Exam process also creates an opportunity for students to be immersed in the grantwriting process, through writing an "NIH-style" proposal.

### **General Timeline and Components of the Comprehensive Exam:**

The Comprehensive Exam (i.e. "Comps") occurs in the spring of the student's second year, as detailed below. This process involves two major steps. First, through the guidance of the advanced writing course the student will prepare an NIH R21-style written proposal. The student and mentor should agree upon the amount of time the student will have away from the lab to prepare the proposal, however, **this should not exceed four weeks**. Second, the student will participate in an oral examination (typically mid-May), during which a committee of five faculty members ask a series of questions of the student, ranging from questions specific to the written proposal to underlying concepts in immunology. At the conclusion of the exam, students will either pass, pass with conditions, or fail (as detailed below).

### **Comprehensive Exam Committee**

The exam committee for each student will be established by the Comprehensive Exam Chair of the Immunology Graduate Program. This committee will include the Comprehensive Exam Chair (or a designated faculty member who will serve as committee chair) and four additional Immunology Graduate Program faculty that hold current appointments in the CU AMC Graduate School. Committees will be derived from a limited pool of faculty, such that any given exam committee will share at least three members with at least two other exam committees. In addition, at least one member of the student's thesis advisory committee will be a member of their examining committee with the intent that this faculty can relay the outcome, strengths and weaknesses of the student to the thesis advisory committee.

All examinations will be given in the spring of the student's second year (typically April-May); students may be given the option for their exam to occur in an earlier block, at the discretion of the Comprehensive Exam Chair of the Immunology Graduate Program. The composition of the committees and the unified time frame for examination are implemented to enhance continuity and equity for the students throughout the examination process. The thesis advisor cannot serve as a member of the exam committee although they are expected to attend the exam strictly as an observer.

### **Student Requirements Leading up to the Comprehensive Exam**

The Comprehensive Exam is a formal exam and the student must be registered for the semester in which they take the exam. ***In addition to registering for the semester, the***

***student must complete necessary paperwork through the Graduate School one month before the exam.*** There are two forms to be completed: “Application for Candidacy Form” and “Exam Request Form,” both which can be found at <https://graduateschool.cuanschutz.edu/forms-resources/resources>.

As of Fall 2024, both forms are now initiated, completed, routed and signed through DocuSign. Further details on these forms can be found below in section "Required Forms for the Comprehensive Exam".

### **Timeline for the Comprehensive Exam Process**

1. The Comprehensive exam written proposal: The subject of the comprehensive exam will be an NIH R21-style grant proposal (R21 format <https://grants.nih.gov/grants/guide/pa-files/PA-20-195.html>) written by the student. This proposal may or may not be the student’s primary research focus in lab, a decision left to the student. Writing the Comprehensive exam proposal involves two phases, typically separated by the student’s first thesis committee meeting:
  - a. Phase 1: Crafting a Specific Aims page. Before the student’s first thesis committee meeting, student and mentor may work together to craft the Specific Aims for their comprehensive exam written proposal. This process may occur from the Fall through January or February.
  - b. First thesis committee meeting: The student typically completes their first thesis committee meeting in January or February; this meeting must take place before the end of March of their second year. A primary focus of this meeting is for the student to present their overall thesis aims (further detailed in the section “Thesis Advisory Committee Meeting Format” below). In addition, the student may use this opportunity to present and receive feedback on potential Aims for their comprehensive exam. This hybrid approach of presenting both thesis Aims, and potential comprehensive exam Aims, is at the discretion of the student and mentor.
  - c. Phase 2: Moving past the Specific Aims page, to write the proposal. After a student completes their first thesis committee meeting, the student will pivot to writing their Comprehensive exam proposal. Students typically work on their proposal between February-April. As noted above, student and mentor should agree upon the amount of time the student will have away from the lab to prepare the proposal. Unless specific accommodations are provided by the Office of Disability, Access, and Inclusion (ODAI), this should not exceed four weeks. For this second phase, the student is expected to develop and write their proposal without the assistance of their mentor or others. Feedback on writing should only be obtained by the student working with their Writing Coach, assigned by the Comprehensive Exam Chair. After the first thesis meeting, it is acknowledged that the communication boundaries between student and mentor with regard to thesis and comprehensive exam aims may be “blurry”. That said, the student should try and largely restrict comps-related communication to their assigned Writing Coach (for feedback on the written proposal) or the Comprehensive Exam Chair (for questions about the Comps process).
2. Assignment of Comprehensive exam Writing Coach: Students will be assigned a Writing Coach by the Comprehensive Exam Chair by January of the student’s second year. The Writing Coach will be a faculty member who has previously served on Immunology

Comprehensive exams, but is not serving as an examiner in the current year. Students should direct requests for feedback on the written proposal to their Writing Coach. It is the student's responsibility to initiate communication with their Writing Coach. Students are expected to provide documents for review to their Writing Coach in a timely manner, so that the Writing Coach has adequate time to provide feedback. The Writing Coach is expected to provide feedback on the student's written proposal, potentially offering suggestions about the structure of the proposal, the material covered in the Background and Significance, the feasibility and design of experiments, etc. Although the Writing Coach may offer input on grammar and sentence construction, students requiring significant assistance on basic writing skills should work with the CU Writing Center (<https://clas.ucdenver.edu/writing-center/>) which has a wealth of resources for writing.

3. Assignment of Comprehensive exam committee members:
  - a. Students will be assigned a comprehensive exam committee chair by January of the student's second year. The student's comprehensive exam chair is the primary point of contact for the student for all questions about Comps.
  - b. Students will be assigned the remaining members of their exam committee by March of the student's second year.
4. Submission of Comprehensive exam written proposal:
  - a. Completed written proposals must be submitted 2 weeks (14 days) before the student's scheduled oral exam.
  - b. Students must submit the finished written proposal before end of day (11:59 PM) of the submission deadline. The proposal should be submitted using the requested method of submission as communicated by the Comps Exam chair; this is typically using SmartSheet. Failure to turn in the comprehensive exam by the deadline will result in an incomplete for the written portion of the exam and remediation will be required as determined by the curriculum committee and the program directors.
5. Mock oral exams: Once a student submits their written proposal, the student should participate in mock oral exams, led by Immunology students who have previously passed their Comps exam. Students can individually organize their own mock exam or work in coordination with the IGSB to schedule their mock exam. It is the student's responsibility to notify IGSB if they require assistance in scheduling their mock exam. Neither the mentor or other Immunology faculty members should participate in a student's mock exam.
6. Oral examination: The formal defense of the proposal will occur before the end of May in a student's second year.

## **Proposals**

### *Comprehensive Exam Topic*

The comprehensive oral examination will typically be centered on the student's thesis research, but may or may not be the student's primary research project in the lab, a decision left to the student. It is anticipated that in some cases, a student's comprehensive exam may serve as a basis for applying for external funding. One of the potential complications of this format, where thesis project and comprehensive exam topic are inter-related, is that a student's thesis work is a complex compilation of the student's, mentor's, and even thesis committee's ideas and hypotheses. These factors complicate the evaluation of the originality of the proposal and to

what degree the proposed research plan is the result of the student's ideas or those of their advisor/committee. The steering committee has acknowledged this as a hazard of the chosen format and, while no strict policing of this will be performed, all students are encouraged to work as independently as possible on both the formulation and the writing of the Comprehensive Exam proposal.

#### *Preparation of the Proposal*

1. The student is responsible for writing the proposal. The student can, and should, receive feedback on their document from their assigned Writing Coach during this process (i.e. Phase 2, as described above). The Writing Coach will offer suggestions about the structure of the proposal, the material covered in the Background and Significance, the feasibility and design of experiments, etc. Although the Writing Coach may offer input on grammar and sentence construction, students requiring significant assistance on basic writing skills should work with the CU Writing Center (<https://clas.ucdenver.edu/writing-center/>).
1. The general format for the written proposal is a research proposal written in an "NIH R21" style. Students may read proposals from previous students, however, they should be aware that they must follow the format prescribed by the program for the current year.
2. Students may get advice on techniques from others, but besides the Writing Coach no one should read the proposal without the recommendation and approval of the Comprehensive Exam Chair.
3. Any issues that arise should be discussed and resolved with the Comprehensive Exam Chair.

#### *Use of generative artificial intelligence (AI) in writing the Comprehensive Exam proposal.*

1. Learning how to write an effective grant is critical for a developing scientist. The rapid rise of generative AI tools (e.g. chatGPT) has provided new opportunities and challenges for the writing process. Use of generative AI tools to facilitate writing of the Comprehensive Exam proposal is at the discretion of the student, and will not be considered positively or negatively by the examining committee. This policy only applies to Comprehensive Exam written proposal and is NOT intended to apply to other aspects of the Immunology program.
2. All students must disclose whether they used generative AI or not on the title page of their submitted written comps proposal.
  - a. If a student does not use generative AI, they should explicitly state this.
  - b. If a student chooses to use generative AI tools (including but not limited to chatGPT, GPT4, Claud and others) to facilitate writing of their Comprehensive Exam written proposal, the student should: **i)** declare its use to their assigned, Comprehensive Exam Chair, **ii)** carefully review and edit any proposed text to ensure scientific accuracy, including appropriate references and **iii)** acknowledge use of generative AI when they submit their completed proposal to their Examination committee. Acknowledgment of the use of generative AI should be stated as follows (based on, and modified from, Author guidelines developed by the publisher Elsevier, <https://www.cell.com/cell/authors>).

*During the preparation of this proposal, I used [NAME TOOL / SERVICE OF GENERATIVE AI (e.g. chatGPT)] to [REASON]. After using this tool/service, I reviewed and edited the content as needed and take full responsibility for the content of this proposal.*

## Format and Structure

1. The format and page guidelines for the written proposal may change from year to year. For 2024, the written proposal should include 4 components compiled into a single document:
  - 1) Title page (1 page) with
    - i. Student name
    - ii. Title of proposal
    - iii. Date and location of oral exam
    - iv. Disclosure on use of generative AI
      1. Did you use generative AI?
      2. If so, what generative AI tool did you use, and how did you use it?
    - v. Graphical abstract / overview with legend (½ page)
  - 2) Specific Aims (1 page)
  - 3) Research Strategy including significance, innovation and research plan (6 pages)
  - 4) References (no page limit)
2. Appearance and legibility are very important. Incorporation of figures is also very useful.
3. Proposals typically contain some preliminary data, but students are NOT evaluated on their progress in lab work in the Comprehensive Exam (something which is the responsibility of the thesis committee).
4. The 1-page **Specific Aims** page should include a testable hypothesis, based on experimental evidence. The specific aims are the approaches that you will adopt to address the general hypothesis. An Aim is not necessarily a single experiment but is often a series of experiments designed to accomplish one goal. Similar to R21 applications, comprehensive exam proposals typically present experiments in 2 specific aims that can be accomplished in 2 years.
5. The 6-page **“Research Strategy”** should include the following 3 sections: 1. Significance, 2. Innovation, 3. Approach, including subsections on experimental design, anticipated results and alternative approaches. More detailed information about the expected content of each of these sections can be found in the “PHS 398” instructions for grant applications to the National Institutes of Health. A pdf of these instructions can be found at the NIH website (see p. 33-34, chrome-extension://efaidnbmninnbpcjpcgiclfndmkaj/https://grants.nih.gov/grants/funding/phs398/phs398.pdf).
6. In the **Significance** section you should answer the question of why this research is important. This is a very important component of the proposal as you are trying to convince the reader that they would want to know the answer to your experiments (for example they would want to read the paper(s) when this work is published). The PHS 398 instructions include:
  - Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
  - Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.

- Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.
7. The **Innovation** section should describe why specifically your proposed experiments are important for the question being addressed. The PHS 398 instructions include:
- Explain how the application challenges and seeks to shift current research or clinical practice paradigms.
  - Describe any novel theoretical concepts, approaches or methodologies, instrumentation or intervention(s) to be developed or used, and any advantage over existing methodologies, instrumentation or intervention(s).
  - Explain any refinements, improvements, or new applications of theoretical.
  - Note that the Innovation section is NOT simply a restatement of significance, but instead emphasizes conceptual, methodological or technical innovations within the proposal.
8. **Approach.** It is recommended that you write out the experiments you propose for each specific aim one-by-one, and for each aim, include a section that covers the following:

*Rationale.* Why is this a logical experiment to do? Why is the approach that you have selected the best way of approaching the experiment? This may also include a discussion of your interpretations of conflicting data in the literature or could include very specific data not given in the background section.

*Experimental Design.* Define exactly what experiments you would do. You may include methods here or list them after. The experimental details should be very clear: for example, how many mice will you inject and at what age? Male and female? If not, why? What will you inject? When will you sacrifice the mice and analyze them? What will you assay for? Describing methods with which most investigators in the field would be expected to be familiar with is not necessary or desirable, but the specifics should be addressed. For instance, if you're doing a Southern blot, what is your probe? What restriction enzymes will you use? How will you interpret your results? Or, if you're doing flow cytometry, what antibodies will you use? How will they be labeled?, etc. Proposal should explicitly define what statistical analysis will be done for proposed studies.

It is extremely important that the proposed experiments be realistic and feasible. Many experimental ideas are great in theory, but once the experimental details are described potential limitations become evident.

*Interpretations and Limitations.* What will the data look like if your hypothesis is correct? How would you interpret alternate outcomes? How would you interpret partial phenotypes (e.g. results that are 50% of wildtype levels). What things might be expected to go wrong? Have you made any assumptions that could turn out to be pitfalls? What will you do if this happens? Can any of this be avoided? Note - in the past, some students have designed specific aims that were mutually dependent, e.g. Aim 2 could not be undertaken if Aim 1 did not turn out as expected. This should not be! Mutually dependent experiments within an aim are okay, but you must point out that this is the case, and discuss alternatives if the outcome is not what you expect it to be.

## Guidance on who students can work with during the Comps process

As noted above, Students are allowed to work with different parties at different stages in the Comps process. Individuals and resources who the student is allowed to work with at different phases are summarized below.

<b>Phase 1. Preparing your Comps Specific Aims</b> (before student's first thesis committee meeting)	Student can work with the following individuals and resources
Writing your Comprehensive Exam Specific Aims page	<ul style="list-style-type: none"> <li>• Your PI (primary contact)</li> <li>• Your thesis committee (in thesis committee meeting)</li> <li>• The CU Writing Center (e.g. on writing structure, style)</li> <li>• Grammarly (grammar correction)</li> </ul>
Thinking about your research	Anyone including your PI
<b>Phase 2. Writing your proposal</b> (after student's first thesis committee meeting until submission of the written proposal)	Student can work with the following individuals and resources
Writing your Comprehensive Exam proposal	<ul style="list-style-type: none"> <li>• Your assigned Writing Coach</li> <li>• The CU Writing Center (e.g. on writing structure, style)</li> <li>• Grammarly (grammar correction)</li> <li>• Generative AI algorithms (e.g. chatGPT, if disclosed)</li> <li>• Your Comps Exam Chair (questions on Comps)</li> </ul>
Thinking about your research (NOT your Comps)	Anyone including your PI
<b>Phase 3. After submission of written proposal</b> (after student submits their written proposal)	Student can work with the following individuals and resources
Mock oral exam	Students, postdocs but not faculty (or PI)
Critiquing your proposal & getting feedback	Anyone including your PI ( <i>new policy, 2025</i> )
Preparing your 12 minute presentation	Anyone including your PI

## Oral Examination

1. The Comprehensive Exam Committee Chair of the Immunology Graduate Program will schedule the date, time and room (in coordination with the program administrator) for the oral exam, and inform the student. It is the student's responsibility to complete the paperwork with the graduate school, and to arrange any audio-visual equipment (ie. Laptop). If there are questions about the paperwork, the program administrator should be contacted.
2. All members of the committee must be present for the examination. One member, but not the chairperson or the student, may participate by interactive video. Although the mentor is not required to be present, the program strongly encourages the mentor to attend so that they may gain insight into the "strengths and weaknesses" of their student. Only the exam committee, the student and the mentor(s) are allowed to attend any part of this exam. Any exception to this must be approved by ALL members of the committee.
3. The format of the oral exam is the following:
  - Initial Committee Discussion: Once the meeting is convened with student, mentor and all examining committee members, the student and the mentor (if present) are asked to leave the room. The chairperson will then lead a brief discussion (<5 minutes) to remind committee members of the scope of the exam, to ensure balanced representation of questions across basic immunology and proposal-specific topics across the committee, and discuss issues with the written document. If the committee considers it appropriate, the mentor may be invited back into the room without the student for further discussion and/or consultation.
  - Student Presentation: Next, the student and mentor are invited back into the room and the student will give a brief oral presentation on their proposal. THIS SHOULD BE A MAXIMUM OF 12 MINUTES. Suggestions for this presentation could include: 1-2 slides of background, 1 slide of significance followed by (perhaps) 4 slides for each experimental Aim that outlines the rationale for the Aim, experimental approach, possible data obtained (e.g., in a Table with + or - for expected results) and limitations of the approach.
  - Examining Committee questions: Upon completion of the student's presentation, each member of the committee will then ask the student questions about the presented material. Questions should primarily focus on the proposal (rationale, significance, experimental design, data interpretation), however, the student should also be prepared to answer questions relating to background, especially foundational principles of immunology (e.g. if a proposal is focused on the immune response to a certain peptide, the student may be asked to discuss how different peptides are processed and presented, to test the student's foundational knowledge of this process). Generally, each examiner will be allowed ~15-20 minutes of questions (timed by the exam chair), with the entire exam typically lasting 2–2.5 hours.
  - Examining Committee discussion and decision:
    - After each member of the committee has asked any questions that they may have, the student and the mentor are asked to leave the room and to remain outside the exam room while the committee discusses the student's

- performance. If the committee considers it useful they may ask the mentor to return to offer additional insight about the student.
- The examining committee can make one of three decisions about the exam: Pass, Fail or Pass with conditions. Generally, the Pass vs. Fail decision is based on the student's oral exam, with Fail only coming into consideration if the student is woefully unable to defend their document or demonstrates significant deficits in their knowledge. This would be demonstrated by multiple instances of major knowledge gaps during the oral exam. Pass with conditions is typically invoked if there is a substantive issue with the written document that the committee agrees requires a rewrite OR if the student demonstrates a focused area of deficiency, potentially rectified by a write-up on this deficient area (e.g. a mini-review). These are solely guidelines and may be adjusted based on individual circumstances.
  - Advising the Student & Mentor about the Committee's decision: After the committee reaches its decision about the outcome of the exam (Pass, Fail or Pass with conditions) the student and mentor are invited back into the room and advised of this decision by the chairperson. The examination form is signed by the committee and returned to the Graduate School Office.
  - The committee is encouraged to provide written feedback to the student regarding the written proposal, the presentation and their performance in answering questions. This can be done by email communications coordinated by the chairperson. If this is done, a copy should be sent to the program administrator for inclusion into the student's file.
4. What happens if a student passes with conditions? If a student passes the examination with conditions, those conditions must be stated on the examination form and satisfied within two months (60 days). The committee chair or another member of the committee will also prepare and share with the committee, student, and student's thesis advisor a written statement that details the committee's expectations for these conditions. The statement will specify the concerns that need addressed and the format by which these will be addressed. The committee/statement may require the student to (a) make edits or revisions to the existing written exam that are within the parameters (e.g. page limits) of the original exam, (b) write a new document that addresses conditions but is separate from the original document, or (c) request that the student complete other conditions as specified. If the student is asked to prepare a new document, the committee's written statement will indicate the expected length of the new document. The committee chair is responsible for monitoring the conditions and reporting their outcome to the Graduate School. Documents will be reviewed by one or more examiners. If the document does not fully meet the committee's expectations for conditions, the student may be asked to further revise the document to more appropriately address the requested topic(s) or correct factual errors. Failure to satisfy these conditions will result in failure of the examination.
5. What happens if a student fails the Comprehensive Exam? A failed examination is discussed by the Immunology Program Directors and the Comprehensive Exam Committee and is based on the oral defense of the student's proposal and a written summary of the exam by the chair. Thus, the outcome of this meeting will be determined on a case-by-case basis. A student who fails the examination is subject to immediate dismissal from the Graduate School upon the recommendation of the program and concurrence of the Dean. However, at the discretion of the Immunology Program

Directors and the recommendation of the comprehensive exam committee, a student who fails the examination may retake it once. The retake will be in the form designated by the Immunology Program Directors and the Curriculum Committee and must be completed within three months. The original examination form noting the failure is signed by the committee and returned to the Graduate School office. New examination forms will be generated when the examination is rescheduled. Students will be required to meet registration requirements and be registered during the term in which the repeated exam is taken.

## Required Forms for the Comprehensive Exam

The forms to schedule this exam can be found on the Graduate School website at <https://graduateschool.cuanschutz.edu/forms-resources/resources> and then click on the Forms tab. The forms are now filled out, routed, and signed through DocuSign. Using DocuSign will be the only process for the forms to be completed and submitted. There is no longer a pdf download available. Once on the Graduate School website, under the Forms tab, you will see the two required forms, **Exam Request** and the **Application for Candidacy forms**. Both forms are due to your Program Administrator (PA) at least **one month** prior to your expected examination date.

1. **Contact your Program Administrator (PA)** regarding the makeup of the Examination Committee as all the committee members will need to have a Graduate Faculty Appointment. To see a list of faculty with current appointments, please see the Graduate Faculty Directory, <https://graduateschool.cuanschutz.edu/forms-resources/resources>, under the All Resources tab.
2. **Completing the "Application for Candidacy" form** as prompted through DocuSign
  - Start by viewing a copy of your unofficial transcript
  - *To be mindful of when completing the Application for Candidacy form*
  - Courses should be **listed in chronological order**
  - **Do not list any courses** in which the grade is either IP or P
  - **Do not list IMMU 8990** as it does not count towards the 30 didactic hours required for comps
  - You will need to list the instructor's last name and initial. If there was more than one instructor, you are ok to list the lead instructor for the course
    - **For any 7650 courses, please list the program director** as the instructor and not your rotation faculty mentor
  - The whole course title must be readable
  - There must be one line for each course taken (didactic) as it appears on your transcript, not including the exceptions as noted above
3. **Complete the "Exam Request" form** as prompted through DocuSign
4. Once the forms have been completed, signed, and submitted through DocuSign, the Graduate School will prepare and distribute the "Notice of Examination" to you, the academic program, and your committee members.
5. Your program will receive not only the "Notice" but all necessary forms to complete the examination.

## Application to Candidacy form

Completing the required courses for the program does not automatically admit a student to candidacy for the degree. Each student must complete the *Application for Admission to Candidacy* form (available from the Graduate School website under Student Resources -> Forms tab. More information below). This application for candidacy must be completed, reviewed and signed by the Program Directors (Ross Kedi OR Beth Tamburini) and approved by the Graduate School. This application requires a clear listing of the courses completed and that fulfill the requirement for 30 letter graded didactic credit hours (see below).

Once the Graduate School approves candidacy, the student will be sent notification by mail at the address the student lists on the *Application*. To apply for candidacy, students must have completed, or be currently registered to complete, 30 semester hours of didactic course work. For Immunology Program students, this means that an application to candidacy can only be submitted *after* registering for the Spring semester Special Topics courses (IMMU 7603, 7604). Again, **a student should have completed (or have registered for) all required courses prior to admission to candidacy.**

## Thesis Guidelines

Students must register for **thesis** credits in the semester following successful completion of the Comprehensive Exam. The student must continue to register for IMMU 8990 (from 1-5 credits) in Fall and Spring semesters each year. For the Summer term, register for 1 credit hour unless you are defending in the Summer semester and then should register for 5 credits regardless of the number of qualifying thesis credits you have accumulated. In addition, failure to comply with the registration requirement could result in having to retake the comprehensive exam.

### Advisors

#### Thesis Mentor

**Students should select a thesis advisor by the end of the Spring semester of the first year.** Students and faculty should inform the program directors and the program administrator by the last day of the final rotation and BEFORE the preliminary exam prompt is received. Decisions before the preliminary exam ensure that students can focus on the preliminary exam. Thesis advisors are selected by mutual consent of the student and the faculty member. A student's placement in a thesis lab must be approved by the Program Director.

**Students entering the laboratory of a new faculty mentor** that has not yet trained graduate students require the selection of a **faculty** co-mentor to **support the student and new mentor through at least the first year of committed graduate research (for T32 recipients, co-mentorship extends through the duration of the T32.)** **This** co-mentorship is meant to be a resource for the student and faculty member as they navigate the requirements of the first- and second-year exams. Co-mentors have no financial obligation to the student, and through the duration of the co-mentorship, meetings between co-mentor, student and mentor should occur at least quarterly. After successful completion of the comprehensive exam, **the student, mentor, co-mentor and thesis chair** can discuss whether the co-mentor should stay on as an advisor or not. **It is highly recommended that a new faculty mentor NOT accept more than one thesis student per year.**

**The new faculty member must attend mentorship training within the year after accepting either rotation students or a thesis student.**

#### Thesis Advisory Committee

After successful completion of the Preliminary examination, the student should choose a thesis advisory committee, in consultation with his/her advisor.

1. The thesis advisory committee is composed minimally of a committee chair and four other faculty members, all holding current appointments as faculty in the Graduate School. Furthermore, the majority of this committee (i.e., at least 3) must be comprised of the Immunology Program faculty. If the committee has 6 members, then 4 must be Immunology Program faculty.
2. All Committee members must have Graduate Faculty status. If a faculty member does not have Graduate Faculty status, please ask him/her to contact the Program Director

for approval. It takes several months for the Graduate School to approve a faculty member for Graduate Faculty status. Should a member not be approved at the time of the defense, the defense could be voided.

3. The student's thesis advisor may not be a voting member of the thesis committee.
4. A list of Immunology Graduate Program training faculty and their primary academic appointments is available for reference on the Graduate School website:  
<https://www.cuanschutz.edu/graduate-programs/immunology/faculty>
5. The primary duties of the thesis advisory committee will be to guide and advise the student's research progress. As the thesis committee needs to provide unbiased advice to the student, the committee membership should be independent from the mentor. Any individual with a real conflict-of-interest (e.g. financial interest or a spouse of the mentor or student) cannot be a voting member of the committee. Conflicted individuals may still participate in committee meetings but must leave the room with the mentor or student, as appropriate. In addition, a majority of members should not have direct involvement in the student's project or be a close collaborator of the mentor.
6. The student must provide the Program Administrator with the names of their Thesis Committee members and have their first committee meeting at least one month prior to their scheduled Comprehensive exam in May (see above). **The minimum time between your first committee meeting and your defense is two years.**

## Thesis Advisory Committee Format

### Evaluation of Student Progress

Student's progress in the program will be determined by evaluation of:

1. Research productivity
2. Development of ability to independently conceptualize, design, carry out, analyze and present his/her experiments
3. Ability to discuss his/her research area and answer questions about the research and its context
4. Knowledge of the relevant literature
5. The quality of Research – in –Progress (RIP) presentation
6. Progress towards creating his/her (first-author) publication(s)
7. Progress towards a complete body of work that will constitute his/her thesis

If the student's progress is considered unsatisfactory, the committee should issue a warning to the student in which the deficiencies are clearly identified and a time period should be set within which it is expected that the student will correct the deficiencies. A copy of the warning is filed in the student's official program file by the program administrator. At the end of the warning period, the committee and student will meet to assess progress. If on re-evaluation, progress is found to remain unsatisfactory, the committee will draft a recommendation to be reviewed by the Program Directors. The Immunology Program Directors will inform the student and committee members of the decision in writing.

## Thesis Advisory Committee Meeting Format

The thesis committee meeting is meant to provide the student, advisor and the Immunology graduate program with an evaluation of student progress and to provide support and recommendations to the student and advisor on the thesis project. This should be carried out in a scientifically critical and rigorous but collaborative manner. Meetings are not intended to be examinations. Ideally, meetings should be a scientific discourse between the student and the thesis advisory committee. The thesis advisor is not expected to participate unless invited or to clarify or to redirect discussion.

During the thesis committee meeting the student is expected to provide experimental findings obtained since the last committee meeting as well as future direction of the project with experiments expected to be accomplished by the next committee meeting. Depending on the student's need and direction the data presented may be preliminary or from other sources (i.e., not from the student, per se). This venue is also meant to provide students with an opportunity to hone their scientific communication skills in describing their experiments and interpreting their findings to other scientists.

1. The first committee meeting should be completed prior to the end of March of the second year.
2. Prior to the **first committee meeting** the student should provide each committee member with a Specific Aims page that provides a specific hypothesis and question that is being addressed with specific aims. Prior to **subsequent committee meetings** the student should provide the thesis committee chair and committee members with a student thesis committee report. The form (see Appendix 4) includes the following:
  - a. Overall thesis research goals and hypotheses that incorporate any changes to those goals resulting from previous committee meetings.
  - b. Previous concerns/recommendations of previous thesis committee meeting.
  - c. Accomplishments since last meeting discussing how you have addressed previous recommendations and, if you did not, then why not (i.e., not enough time, took different direction, etc.). Include any new methods/techniques you may have learned, any literature sources or collaborators that were significant.
  - d. How did your results affected your original hypothesis or goals? (confirm, deny, modify).
  - e. Based on the data/results described in (c), state briefly your next steps in elucidating the hypotheses.
3. Each committee meeting should begin with a short discussion with the student in the absence of the mentor, and with the mentor in the absence of the student. In these discussions both advisor and student are encouraged to provide a candid assessment of the mentorship and how the dissertation project is progressing and whether any issues have surfaced that the committee needs to be aware of.
4. The thesis committee meeting should begin with a slide prepared by the student that discusses career goals and a list of activities accomplished in the previous year that relate to these goals. This also serves as an official Individual Development Plan (IDP) discussion for the student and advisor.
5. The student should then present his/her recent research findings to the committee, discuss how these findings impact the thesis work and the future experiments to be performed before the next committee meeting

- a. It is important the student understands that they should ultimately control these meetings (increasingly so after each meeting). This is best accomplished by having, and presenting, a clear understanding of where he/she is in their thesis project, where the committee (and specific committee members) can be of particular help (direction, technique, approach, etc.) and what are the next goals.
  - b. The student should be aware that any data or experiments that are presented can very easily generate discussion by the committee members that ultimately can take up considerable time. Thus, the presentation of background information and experiments that are not going to be pursued or are not relevant to the thesis direction should be carefully considered.
  - c. The thesis committee chair is responsible for ensuring that the discussions stay pertinent to the thesis topic and that respect is maintained towards both student and faculty.
6. Each committee meeting should end with a discussion amongst committee members (in the absence of student and advisor) on the student's project and progress. The goal of this discussion is to reach a consensus sentiment by the committee on these topics that should be included in the Thesis Committee Report.
  7. The Committee chair should then relay the consensus sentiment to both student and thesis advisor immediately following the meeting.
  8. *Finally, the student (and faculty committee members) should be cognizant of the dual nature of the responsibilities of faculty committee members: to nurture and promote scientific progress and development during regular committee meetings and, ultimately, the same faculty members are required to rigorously examine the student on their thesis topic and general immunology concepts during the thesis defense.*

## **Responsibilities of Thesis Committee Chair, Committee Members, Advisor, and Student.**

### **Thesis Advisory Committee Chair responsibilities**

The Thesis Committee Chair has responsibilities above and beyond that of committee members. Thus, ***before agreeing to accept the chair, faculty should ensure they have adequate time to give to the student and their thesis project.*** Thesis Committee Chair must be a core-training faculty from the Immunology Graduate Program with a Regular appointment in the UC Graduate School faculty.

Responsibilities include:

1. Presides over the meeting of the Thesis Committee, student and advisor. This includes ensuring the discussion stays on topic and that there is mutual professional respect between adult students and faculty.
2. Completes the online Thesis Committee Report (<http://predocprogress.ucdenver.edu/>) after each committee meeting, summarizing the discussion and the recommendations of the committee. This report must indicate if progress is satisfactory or unsatisfactory and should be determined after the meeting and as agreed upon by committee members in the absence of the student and advisor. The online report should then be submitted "in collaboration mode" for input from the other committee members, followed by formal

- submission when this is achieved.
3. Attends the student's RIP and completes the online evaluation of the presentation (<http://predocprogress.ucdenver.edu/>).
  4. Be accessible to the student to discuss issues arising related to the thesis project.
  5. Meets at least every 6 months individually with student (in the absence of advisor) to assess lab environment, mentoring, progress (excluding data and actual experiments).
  6. Serves as a liaison between the student and thesis advisor and thesis committee should matters of disagreement surface.
  7. Serves as a liaison with program leadership should the need arise.
  8. Presides over the Thesis Defense.

### **Thesis Advisory Committee Member responsibilities**

A student's thesis committee serves several important functions in the student's thesis work and is deserving of appropriate effort and energy by each member. Thus, it is recommended that faculty limit thesis committee membership to 12 committees. Thesis committee members must hold Regular or Special Faculty appointments in the Graduate School. By assuming committee membership, you must agree to:

1. Attend an approximate 2-hour thesis committee meeting every six months throughout the student's thesis work.
2. Provide the student with guidance concerning the research and help redirect the research into productive avenues.
3. Evaluate the student's progress and ensure that the project is of interest, novel, focused and feasible. The outcome of this work must lead not only to his/her thesis but also to a peer-reviewed first-author publication. Members of the committee must keep this in mind. Work towards this is expected to commence when the student enters the thesis lab meeting.
4. Attend the student's mandated Research-in-Progress (RIP) presentations and relay evaluation to the Thesis Committee Chair.
5. Promote the student's development into a rigorous independent investigator.
6. Provide the student and the mentor with an opportunity to express privately any concerns about the research environment or the progress of the research (see below).
7. Attend student's thesis defense as a faculty examiner.

Online **Thesis committee report** form and **RIP evaluation** form to be completed by thesis committee chair: <http://predocprogress.ucdenver.edu>

### **Thesis Mentor responsibilities**

Agreeing to supervise and direct a graduate student and their thesis project carries considerable responsibility that comes with obligations to the student, Immunology graduate program and Graduate School. Thesis advisors must hold a Regular faculty appointment in the Graduate School. Where co-thesis-advisors are chosen by the student, one may hold instead a Special faculty appointment.

The thesis advisor responsibilities include:

1. Provide guidance in the selection of an appropriate thesis research project that addresses an important biological (immunological) question. Furthermore, you are

responsible for directing the student in this research by nurturing independent and critical research and with the clear goal of publishing *at least one* first author manuscript(s) that advances the field.

2. Mentor is expected to work with their student and thesis committee to guide the student to completing a first-author research publication prior to graduation.
3. You agree to meet with your student regularly to discuss experimental results, interpretation and direction.
4. Attend the student's Comprehensive exam (usually held during May of the student's first year in the lab, September for MSTP students joining the Immunology Program). The thesis advisor's attendance is not mandatory but is strongly encouraged to identify the strengths and weaknesses of the student.
5. Together with the student, compose the student's thesis advisory thesis committee and identify an appropriate thesis chair.
6. Ensure the student schedules a thesis committee meeting at least every 6 months as required by the Immunology Graduate Program rules and attend each of these meetings.
7. Attend each of your student's Research-In-Progress presentations.
8. Strongly encouraging your student to attend all graduate program seminars, RIPs and journal clubs.
9. Encourage and financially support your student's attendance at the annual Immunology and Microbiology Conference.
10. Read and approve the student's thesis prior to distributing to the committee members.
11. Provide financial support for the student's stipend and research throughout their thesis work. Students should not be supported by a funding mechanism (e.g. corporate funds) that in any way restricts publication of the student's research findings.
12. Coach and encourage your student through the writing and publication process.

### **Graduate Student responsibilities**

1. Student is responsible for arranging and scheduling the meeting with the thesis advisory committee **every 6 months** unless both advisor and thesis committee chair have agreed otherwise. This includes arranging a meeting place, contacting committee members.
2. Student is responsible for informing the Program Administrator of the date and time of the scheduled meeting.
3. Prior to the first committee meeting a Specific Aims page should be provided to all committee members. For all subsequent committee meetings, the student should submit a formal write-up of the previous committee meeting to all committee members and as outlined below\*; it is the chair's responsibility to read this prior to the meeting.
4. After each committee meeting, the student should provide the thesis committee chair with a copy of his/her presentation.
5. Student is expected to notify the thesis committee members sufficiently in advance of scheduled RIP presentations so that they can schedule attendance.
6. Student is expected to work with their mentor and thesis committee to develop and complete a first-author research publication prior to graduation.
7. Student is responsible for meeting with their thesis chair every 6 months (in the absence of advisor) to discuss lab environment, mentoring, progress, etc. Discussion of data and experiments, while fine, is not the goal of this meeting.
8. **Students must be current with thesis committee meetings and reports to register for classes. Any financial consequence of not registering (including tuition payment) will be the student's responsibility.** (Any exceptions to this, or any other program policy, require approval by the Graduate Program Directors).

***\*Student thesis committee write-up to be completed prior to committee meetings***

1. State your overall thesis research goals and hypotheses. Incorporate any changes
2. to those goals resulting from previous committee meetings.
3. What were previous concerns/recommendations of previous thesis committee meeting?
4. What have you accomplished since then? Discuss how you have addressed previous recommendations, if you did not then why not (ie, not time, took different direction, etc). Include any new methods/techniques you may have learned, any literature sources or collaborators that were significant.
5. How did your results affected your original hypothesis or goals? (confirm, deny, modify).
6. Based on the data/results described in (3), state briefly your next steps in elucidating the hypotheses.

**Publication Requirement**

Publications are the final step of research done in the lab. Public funds support the research endeavor and all scientific research builds on the work and results of others. For these reasons, all scientists are obligated to share their findings with their peers and the public.

Students in the Immunology program are expected to, at a minimum, have published one first author research publication upon graduation. A co-first authorship may be considered to satisfy this requirement in specific, approved, situations. To meet this goal, a qualifying paper (as judged by the thesis committee) must be **accepted** for publication prior to the student setting a thesis defense. To ensure this requirement can be met, each student, thesis committee member, and mentor are expected to begin working towards achieving this minimum requirement as soon as the student enters the thesis lab.

Exceptions to this requirement can be made on a case-by-case basis. This will be approved only in rare cases where there are extenuating circumstances. Approval of any exceptions shall be recommended by the thesis committee chair for approval by the Program Directors. If one of the Program Directors is in conflict (e.g. due to membership on the thesis committee or as the mentor), the other Program Director will evaluate and approve or decline the exception. If both Program Directors are in conflict, the Program Steering committee will evaluate and approve or decline the exception.

## Writing and Defending the Dissertation

The Graduate School requires a specific format to be followed when writing the dissertation and that is provided in a style and policy manual for writing theses and dissertations. Information regarding the graduate school requirements, forms, and policies and procedures be found on the Anschutz Graduate School webpage: <https://graduateschool.cuanschutz.edu/forms-resources/resources>

These documents should be consulted carefully by every student prior to embarking on the writing and submission of their dissertation. A brief summary of the most salient aspects of the dissertations writing and submission process is provided below.

### Dissertation format:

The overall format of the thesis should generally follow the outline below :

#### Chapter 1: Introduction/background/hypothesis

-this should be the background for your whole thesis project and end with your overall hypothesis

#### Chapter 2: Materials and Methods

-this should be the materials and methods for all experiments with detail sufficient for the reproduction of the data

#### Chapter 3-?: Results

-this should include an introduction, results and interpretation/discussion for the topic of the chapter

-any publications should be adapted as separate chapters.

#### Final Chapter: Discussion of how your thesis work fits into the broader immunologic landscape

-include future directions

### Dissertation submission

Prior to submitting your dissertation to the entire thesis committee, your dissertation must be approved by your thesis mentor and Committee Chair. All members of the committee must receive a final version of your dissertation two weeks before the scheduled thesis defense date. In order to meet this deadline, you should provide your completed dissertation to your thesis mentor and committee chair at least one month in advance of the two-week deadline for the remaining committee members. The thesis should be publication-quality, i.e., words spelled correctly, figures and tables labeled correctly, Table of Contents must be completed, Bibliography included and appropriately annotated, etc. Please see the IMMU 2024 thesis format guidelines in the appendix.

The student is responsible for coordinating and scheduling the defense with the thesis committee. The student is also responsible for contacting the program administrator to assist in establishing a room reservation and the preparation and posting of seminar notices.

Arrangements for the thesis defense must be made in the Graduate School Office at least two weeks prior to the scheduled defense. The defense must be given no later than three weeks prior to the date on which the degree is to be conferred. You must be registered for 5 credits of IMMU 8990 at the time of the defense.

### Final Dissertation Defense

The oral defense consists of two parts; 1) a public presentation of the thesis research and its conclusions, and 2) a private exam with only the student, the thesis committee and the thesis mentor present. All 5 thesis committee members are expected to be in attendance. In the event that all committee members cannot be present a minimum of 4 committee members are needed to meet graduate school requirements. A stand in committee member can be chosen for the final defense if 4 of the thesis committee members cannot be present. All committee members are expected to be present in person. If this is not possible, the student must discuss other options with the thesis committee chair and the program directors. The thesis advisor should be present at the thesis defense but will not participate in either questions or answers asked by the thesis committee. After the committee chair has determined that no further questioning of the student is needed, the student and mentor will leave the room of the committee to deliberate the outcome of the exam. As in the comprehensive exam, possible outcomes are pass, pass with conditions, or fail. Conditions for the pass and time frame for resolution are established by the committee and must fall within graduate school guidelines. Students are allowed one retake of the exam if the initial outcome is a fail.

### Use of generative artificial intelligence (AI) in writing the Thesis Dissertation.

1. Learning how to write an effective grant is critical for a developing scientist. The rapid rise of generative AI tools (e.g. chatGPT) has provided new opportunities and challenges for the writing process. Use of generative AI tools to facilitate writing of the Comprehensive Exam proposal is at the discretion of the student, and will not be considered positively or negatively by the examining committee. This policy only applies to Comprehensive Exam written proposal and is NOT intended to apply to other aspects of the Immunology program.
2. If a student chooses to use generative AI tools (including but not limited to chatGPT, GPT4, Claud and others) to facilitate writing of their Comprehensive Exam written proposal, the student should: i) declare its use to their assigned, Comprehensive Exam Chair, ii) carefully review and edit any proposed text to ensure scientific accuracy, including appropriate references and iii) acknowledge use of generative AI when they submit their completed proposal to their Examination committee. Acknowledgment of the use of generative AI should be stated as follows (based on, and modified from, Author guidelines developed by the publisher Elsevier, <https://www.cell.com/cell/authors>).

*During the preparation of this proposal, I used [NAME TOOL / SERVICE OF GENERATIVE AI (e.g. chatGPT)] in order to [REASON]. After using this tool/service, I reviewed and edited the content as needed and take full responsibility for the content of this proposal.*

### **Graduation Requirements**

30 semester hours of graded course work including 8 credit hours of rotations.

30 semester hours of thesis credits.

A "pass" grade for the preliminary and comprehensive examinations.

Completed and approved thesis, and a pass on final dissertation defense.

## Required Forms for Thesis Defense Seminar, Examination, and Dissertation Submission using ProQuest

After scheduling your thesis defense date and time, you will need to reserve two rooms for that day, 1) for your thesis defense seminar and 2) for your thesis exam defense with committee. You may book these yourself and inform your Program Administrator (PA) once confirmed **or** ask your PA to book them for you.

### Forms and requirements for your thesis defense:

Graduate School required forms to be submitted **BEFORE** your defense date:

- **Exam request form** – due to your PA one month before thesis defense date
- **Biosketch form** (not NIH bio sketch) – due to PA one month before thesis defense date
- *Both forms can be found at <https://graduateschool.ucdenver.edu/forms-resources/resources>*
- *Forms are listed under the forms tab and utilize DocuSign for signature, completion and submission.*
- *Please make sure to include your Faculty Mentor as a member of your thesis committee. Also make sure that each of your committee members has a Graduate Faculty Appointment from the Graduate School <https://gs.ucdenver.edu/graduate-faculty-directory/>*

Graduate School forms to be submitted **AFTER** your defense date:

- **Thesis Defense Report** – your chair will have this form from the Graduate School and will route the form for committee's signatures through DocuSign.
- **Thesis Approval form** - **you** will initiate this form for signature routing and completion using DocuSign.
- *Both forms can be found at <https://graduateschool.ucdenver.edu/forms-resources/resources>*
- *Forms are listed under the forms tab and utilize DocuSign for signature, completion and submission.*

Submitting your written thesis to ProQuest:

- You will initiate this step when your Thesis Approval form has been submitted to the Graduate School.
- There are some helpful links re: ProQuest submission embedded in the 'Graduation Deadlines Thesis 2024-2025, Anschutz' page found under the Deadlines tab on the Graduate School resources page, <https://graduateschool.cuanschutz.edu/forms-resources/resources>

Tips when starting to think about a defense date:

- Start talking with your Faculty Mentor about your last day of work that will coincide with your last day to be paid
- Pay attention to the end dates associated with the student health insurance (<https://www.cuanschutz.edu/student/health-wellness/student-health-insurance>)
- View the date deadlines for each semester on the 'Graduation Deadlines Thesis 2024-2025, Anschutz' page found under the Deadlines tab on the Graduate School resources page, <https://graduateschool.cuanschutz.edu/forms-resources/resources>

## **Graduate Student Activities**

### **Journal Club**

Journal club is a weekly seminar on current literature presented by students. Three times per year a faculty member hosts a “Pillars in Immunology” journal club that centers on a classic immunology paper. First year students will be asked to sign up to present an article sometime following the first semester. The Immunology Graduate Student Board (IGSB) seminar coordinator will contact students about presenting. Journal clubs are an important aspect of graduate training and all students (entering through senior) are strongly encouraged and expected to attend each week.

### **Seminars**

Numerous scientific seminars are conducted throughout the year. All students are expected to attend the Department of Immunology & Microbiology seminars, held at the CU Anschutz Medical Campus on Fridays from 12:00-1:00 pm in the Hensel Phelps East auditorium. A schedule is available on the Department website.

In addition, there are several regular weekly forums that are available for students to attend including other departmental and graduate program seminars at AMC and NJH as well as a weekly Lung Cell Biology Research Forum and Pulmonary Research in Progress that students are welcome to attend.

### **Research-in-Progress**

A major component of our Immunology training program is the weekly Research-in-Progress (RIP) presentations in which graduate students and postdoctoral fellows give a 30-minute presentation of their current work. Currently this RIP forum is held every Wednesday (September-June) with two individuals speaking for 30 minutes. These RIP presentations are presented for half the year at the Anschutz and half the year at NJH. The Immunology Program considers this an extremely important venue for our students and thus all program students 2<sup>nd</sup> year and beyond are expected to attend.

## General Information

### Checking Account

It is important to establish a checking account as soon as possible. The University issues all pay checks, including student stipends, as automatic direct deposits. Students should log into their portal and navigate to the resources tab to locate their W4 and Direct Deposit forms. Note: Direct deposit is mandatory and students have until August 16<sup>th</sup> to complete these two forms.

### Office of Information Technology (OIT) and Software access

Students have access to a variety of free and reduced cost software through the OIT (<https://www.cuanschutz.edu/offices/office-of-information-technology/tools-services>). For first year students, costs associated with software access can be covered by the Graduate Program in Immunology and arranged through the Program Administrator. For students' second year and beyond, arrangements will be made through the students' home department.

### CU Alerts!

CU Alerts! Emergency messaging includes email, text, computer pop-up messages, and social media postings. Please visit the Emergency Management *CU Alerts!* Page [www.ucdenver.edu/alerts](http://www.ucdenver.edu/alerts) and follow the instructions to register your cell phone number. Be sure to enter your cell phone number in the Employee Profile section of the portal as a "CELLULAR" device (or it will not be imported into the *CU Alerts!* System).

### E-mail Access and IT Services

Graduate students will have an account in the electronic mail/internet access system. Note that these are university accounts and cannot be used for political lobbying, downloading music files, etc. University IT Services is also available to assist you with your IT/Helpdesk needs. Please refer to the following website for more information regarding their services and protocol-  
<http://www.ucdenver.edu/about/departments/ITS/Pages/OIT%20Home.aspx>

**Most communications from the Graduate Program in Immunology will be via e-mail and all Immunology Graduate Program students are expected to have e-mail access, to monitor this account regularly, and to respond to emails from the Program Administrator, Program Director, and other Program Faculty.**

### Finances

All incoming Graduate Students are offered a financial aid package from the Graduate School that includes an *annual stipend* of \$38,110 (approved for Academic Year 2024-2025), *tuition costs*, and payment of *individual student health insurance* and *activity fees*. Please note that this support covers the period July 1, through June 30 for continuing PhD students, and August 15, through June 30 for first year PhD students. Payment of annual stipend, along with tuition costs, fees and individual health insurance is dependent upon satisfactory academic progress as defined in the Graduate School and Program policies.

Students are funded from a variety of sources of funds awarded to each institution: NIH Training Grants, NIH Research Funds, and industrial fellowships, to name just a few. Each source (Federal or Non-Federal, Institutional or Individual) has its own set of guidelines when awarding funds to an institution and, each institution has administrative policies to which it must adhere for the dissemination of those funds. The source of funds and the awarded institution dictate the policies for payment and taxation. It is advised that students become familiar with the sources of

their support and the guidelines that apply. The Program will make every effort to ensure that students are supported throughout their program. However, students are encouraged to apply for the many alternative sources of individual funding.

### **Health Insurance**

Student health insurance, <https://www.cuanschutz.edu/student/health-wellness/student-health-insurance>, is part of the financial package offered to incoming Graduate Students. The health insurance invoice is paid in conjunction with your tuition invoice. All degree and specific approved, certificate-seeking students enrolled in five or more credit hours must take the School of Medicine's Student Health Insurance Plan. Students covered by another source of insurance through a spouse/partner may request a waiver and must do so by the date associated with the current semester.

The University of Colorado provides varied student needs in the area of health. The Student Health Insurance (SHI) Plan is designed to provide students with health care coverage offering a PPO accident and sickness health plan.

The Student Insurance Office is available to all students at the School of Medicine to assist with selecting or waiving the Student Insurance Plan. If you are having problems understanding a bill, or you think an error has been made, don't hesitate to contact the Student Insurance Office. One of the functions of the Student Insurance Office is to help you resolve billing issues.

#### **Location:**

Office of Health Promotion | University of Colorado Anschutz Medical Campus  
Mail Stop A035, Education II, North Room #3208  
Aurora, CO 80045

<https://cuanschutz.edu/student/health-wellness>

Phone: 303-724-7674 Email: [Health.promotion@cuanschutz.edu](mailto:Health.promotion@cuanschutz.edu)

Hours: 8 am – 5 pm (Appointments recommended)

### **ID/Access Badge: Identification Card and After Hours Access**

Everyone on campus must carry a UCD picture ID at all times. This ID serves many purposes including enabling students to access the library, parking, gain access to the laboratory sections of the Department, after-hours entry into RC-1, after-hours access to the elevators, and to attend special University functions. Please notify your thesis faculty mentor's department Administrator immediately if your UCD ID is lost so it can be canceled and replaced.

### **Keys**

Your thesis advisor will guide you to the proper Department Administrator to issue keys for office doors, alcoves and interior rooms. Entrance to animal and BSL-3 facilities requires modification of your ID card. There is a substantial charge for lost keys.

### **Lab Training Classes**

There are several university requirements to assure safety of all personnel who work in laboratories. The Environmental Health and Safety Division of UCD offers classes and certification in **radioisotopes, handling hazardous waste, and blood borne pathogens**. For working in microbiology laboratories, all of these classes are recommended. Each topic has an initial class with extensive handouts to read before and an annual refresher class in which you

will hear about new regulations, recent problems, etc. The information on the scheduling of the classes is on the website: <http://www.ucdenver.edu/research/EHS/Pages/EHS.aspx>

The Animal Care and Use Program provides information about requirements for using animals in research programs. Special training in surgery, anesthesia, etc. is offered from time to time: <http://www.ucdenver.edu/research/OLAR/Pages/default.aspx>

Graduate students should take these classes at the beginning of their first rotation. Radioisotopes may be taken at a later date or a non-users version may be taken depending on the laboratories in which rotations will take place. Please notify the Graduate Program Administrator as soon as the necessary examinations have been passed so the information can be put into your folder. It is the student's responsibility to stay current with required annual refresher classes.

Students must complete the following Skillssoft classes prior to working in the lab:

- Lab Safety
- Blood Borne Pathogens
- Regulated Medical Waste Management
- Chemical Waster Management

All new research associates, animal care workers or faculty, staff, fellows, students and affiliates who are part of an [IACUC](#) or [IBC](#) protocol that works with animals, animal waste, or animal tissues or enter the vivarium as well as those who work with the items detailed below are required to enroll in the Occupational Health Program (OHP).

- toxins/venoms
- infectious agents
- anesthetic gases
- anti-neoplastic drugs
- teratogens/carcinogens
- radioactive materials
- heavy metals
- lasers
- formaldehyde
- human blood, tissues, cells or cell lines

Enrollment consists of completing and submitting the [Initial Medical Surveillance Questionnaire](#), then scheduling an Initial Medical Surveillance appointment by calling the Occupational Health Clinic at (303) 724-9145. All prior written immunization records need to be submitted prior to the appointment or brought to the appointment. Your health information, immunization history and work-related duties will be reviewed by the OHP nurse to identify any potential hazards and review health recommendations and follow-up.

Depending on your risk category, the OHP may require you to undergo additional training, medical surveillance, or additional vaccinations and/or titers prior to initiating your duties. Upon completion of the Initial Medical Surveillance appointment, a certificate of OHP enrollment will be issued and your OHP enrollment status forwarded to either the IACUC or IBC.

All employees will need to submit an Annual Medial Surveillance Form each year to keep their enrollment current. The OHP will send out an annual reminder to each individual prior to the due date. If the Annual Medical Surveillance Form is not received by the OHP by the end of the anniversary month, steps can be taken to ensure compliance including notification of Principal Investigator (PI) or Supervisor and leading up to OHP disenrollment and/or vivarium badge access removal.

## Library

The Health Sciences Library purchases many online journal subscriptions that can be easily accessed on campus via <https://library.cuanschutz.edu/>.

### *National Jewish Tucker Medical Library*

The NJH library is located on the first floor of the Goodman building on the NJH campus.

Interlibrary loans are available for many journals/articles not subscribed to by the Library. Graduate students may petition the Graduate Program Director (Laurel Lenz) if they believe there is limited access to books or other library materials relevant to their studies.

## Parking & Transportation

Many parking options are available to students at the Anschutz Medical Campus and your first stop will be the Parking Office in Building 500 if you are interested in any parking on campus. You can learn more about student parking on the [parking office's website](#), but for convenience, we've summarized some key options here as well.

The RTD CollegePass is part of your student fee package. A [Regional Transportation District \(RTD\) CollegePass](#) offers unlimited, local, regional and airport bus and rail access on all RTD routes in the Denver Metro area. **Any degree-seeking student enrolled in one or more credit hours is eligible for the RTD pass each semester.**

### How do I get my RTD CollegePass?

Your CollegePass will be exclusively on the MyRide App. Please see our [website](#) outlining all the steps you need to complete before receiving the CollegePass.

For more FAQs and information, please visit our [website](#).

### On Campus Parking options - [https://www.cuanschutz.edu/offices/facilities-](https://www.cuanschutz.edu/offices/facilities-management/parking-transportation-maps/parking/permit-parking)

[management/parking-transportation-maps/parking/permit-parking](#) Research Core Facilities

- Advanced Light Microscopy Core
- Animal Model Core
- Biostatistics & Bioinformatics Core
- Biophysics Core
- DNA Sequencing & DNA Analysis Core
- Electron Microscopy Core
- Flow Cytometry Core
- Genomics & Microarray Core
- High-Throughput Sequencing Core (HTSC)
- Histopathology Core
- Human Immune Monitoring Core
- Mass Spectrometry Core
- Nuclear Magnetic Resonance (NMR) Core
- Peptide & Protein Chemistry Core

### **In-State Residency Status** - <https://cuanschultz.edu/registrar/residency>

By the end of your first year of training, students from out-of-state must petition the Office of the Registrar for in-state resident status for the purpose of tuition classification. This is a **very important** priority for first year students. After the first full year, funding will be available (assuming satisfactory academic progress) only if the student qualifies as an in-state resident or is a foreign national. Required objective evidence of residency includes:

- Colorado Driver's license
- Colorado automobile registration & license plates
- Colorado voter registration
- Colorado state income tax records
- Ownership or Rental of residential property for at least 12 months

It is important to note that students are initially classified as "resident" or "non-resident" for tuition purposes during the Admissions process. The classification is based upon information furnished by the student and from other relevant sources. After the student's status is determined, it remains unchanged in the absence of satisfactory evidence to the contrary. Once the student has met the requirements for establishing residency ("domicile") as defined by Colorado law, the student may submit a Petition for In-State Tuition/Residency Classification to the Office of the Registrar. (Please see section, "Petitions and Appeals").

The requirements for establishing residency for tuition purposes are defined by Colorado law. (See **Colorado Revised Statutes 23-7-101 et. seq.** View online at <http://www.michie.com/colorado>. As tuition classification is governed by state law and by judicial decisions that apply to all public institutions of higher education in Colorado, the University of Colorado does not have discretion to make exceptions to the rules as established by state law.

The statutes require that a qualified individual must be domiciled in Colorado twelve (12) consecutive months immediately preceding the term for which resident status is claimed.

An individual is "qualified" to begin the process of establishing domicile and the one year domicile period by virtue of adulthood and emancipation at age 22, marriage, or enrollment in a post-baccalaureate graduate or professional degree program. An unemancipated minor is qualified through the residency of his or her parents or legal guardians. (See below "Emancipation and Residency.")

### **Stipend Support, Health Insurance, and Tuition**

Students in the Graduate Program in Immunology receive an annual stipend (\$38,110 for 2024-2025 academic year), individual health and dental insurance, and tuition. The Program Administrator will initiate for payment of these funds and handle any financial problems that may arise with assistance from departmental financial administrators, as needed. Late registration fees are the responsibility of the student, \$60.00.

First-year non-resident students are expected to take all necessary steps to attain **Colorado Residency** by the end of their first year in the Program. This makes them eligible for in-state tuition rates, a very considerable savings. The Program is only responsible for the cost of the equivalent of the in-state tuition rate after the student's first year.

After the thesis mentor has been selected, the student's stipend, insurance, tuition, research expenses and professional travel will be paid from grants to the mentor. While receiving support from an NIH grant, you cannot receive additional funds from outside employers per NIH guidelines.

## Teaching Opportunities

Students who have an interest in teaching experience should make this interest known to the Director of the Graduate Program and to their advisory committee (Pre-Comps or Thesis). It is possible to gain teaching experience by participating in the teaching labs for medical students or by facilitating paper discussions for first year core students. The faculty will provide advice in preparation and feedback on teaching performance in order to improve teaching skills. Other teaching opportunities may be available within UC Denver. For students interested in other teaching opportunities, it is the responsibility of the student to obtain approval of their advisor, to conform to relevant CU Denver Graduate School policies, and to inform both the Microbiology Graduate Program Director and their Thesis Committee.

## Travel to Professional Meetings

Professional scientific meetings are excellent places to learn what is new in a particular field, interact with scientists from other institutions and countries, see new equipment, and present research data. A student's attendance at local, national, or international meetings is by mutual agreement between the student and mentor based on scientific or financial criteria. Reimbursement for meeting travel costs and expenses are provided from the mentor's research funding (at the mentor's discretion and only with prior approval of the mentor) or the student's individual graduate fellowship.

Students may also apply for a Hirs award for travel to national meetings from the Graduate School. Student travel awards are provided from an endowment entitled the "C. Werner and Kitty Hirs Graduate Student Enrichment Fund" made to the University of Colorado Foundation for the use by the Graduate School at the AMC of UC Denver. Awards will be for up to \$500 and are to be used to help cover the expenses incurred by a Ph.D. student who attends a national society's meeting and presents his/her work.

### Eligibility:

1. The student must have successfully passed his/her comprehensive exam.
2. The student must be enrolled in a basic biomedical sciences Ph.D. program.
3. The student must have an abstract (first author) submitted and accepted for presentation at the meeting.
4. The student's laboratory mentor must commit to providing any additional support necessary for the student to attend the meeting.

Many national meetings also offer partial funding for selected graduate students to attend. It is the student's responsibility to investigate and apply for such external funding. Funding for attending a meeting is often coupled to having research data to present at the meeting as a poster or oral presentation with slides. Abstracts for meetings are due months in advance of the meeting. Information on various meetings and their abstract deadlines is available at the websites of various scientific societies.

All travel funded by university funds must be pre-authorized by obtaining departmental approval. The Administrative Assistant or your thesis advisor **in your home department** will assist you in making all your travel plans (airfare, hotel, etc.). It is your responsibility to contact them as soon as you begin making plans for your travel and well before the meeting begins. Advance planning will avoid paying late registration fees and higher airfares.

## Tuition

Tuition is paid by the Office of Research Education for first year students and by the student's thesis advisor in subsequent years. Tuition payment is subject to the following limitations:

- Payment for tuition, benefits and fees is processed by your Program Administrator
- **Tuition will be paid only at in-state tuition rates after the first year. Any additional tuition will be the responsibility of the student. Thus, it is imperative that out-of-state students establish in-state residency within the first year to avoid paying the difference in out-of-state versus in-state tuition (See In-state Residency Status section).** This is not the case for foreign students who do not qualify for in-state residency. For such students, the thesis advisor will be responsible for tuition payments.
- Please make every effort to register before the Add/Drop published deadline. (The student is responsible for any late fees incurred.)
- Neither the Department nor the Program will pay tuition for retroactive registration

## APPENDIX 1



### Academic Calendar – Fall 2024

This calendar:

- applies to MS and PhD programs affiliated with the Graduate School on the **Anschutz Medical Campus**.
- only includes deadlines pertaining to coursework or those managed through UCDAccess.

For deadlines pertaining to graduation, please see the Graduation Deadlines document on the Graduate School website.

For policies, procedures and deadlines related to the tuition waiver benefit, please visit the Employee Services website.

Month	Day	Deadline	Notes
June 2024	3	First day to submit a <b>new</b> non-degree application or <b>continuing</b> non-degree course permission form.	Taking a class requires active non-degree student status. Continuing non-degree students must submit a signed course permission form to enroll every semester.
	10	First day to apply for Fall graduation in UCDAccess.	If you intend to graduate in Fall, you must complete this online application. If you do not, you will not be eligible to receive your degree until Spring.
July 2024	1	Course enrollment for Fall begins in UCDAccess	
August 2024	2	Last day to petition for resident (in-state) student/tuition status.	Funded PhD students who do not establish residency by second year may have to pay the tuition difference.
	5	Last day to submit a <b>new</b> non-degree application or a <b>continuing</b> non-degree course permission form.	See June 3 for more info.
	26	First day of Fall full semester classes.	
September 2024	2	Labor Day Holiday	No classes. Campus closed.
	6	Last day to add/drop courses in UCDAccess. * Courses dropped after this date will appear on your transcript with a grade of "W." * Students will be charged all tuition and fees for any course dropped after this date. * Students will be charged a \$60 late fee to add courses after this date.	After this date: • use the small Add/Drop Form to modify credits or add classes if already enrolled in at least one (1) credit. • students who have not registered in any classes must use the Registrar's Registration Form and get the Assistant Dean's signature. • use the Registrar's Course Withdrawal form to withdraw from (drop) a class.
		Last day to apply for graduation in UCDAccess.	If you intend to graduate in Fall, you must complete this online application. If you do not, you will not be eligible to receive your degree until Spring.
November 2024	28-29	Thanksgiving Holiday	No classes. Campus closed
December 2024	9-13	Final Examination Week	
	13	End of semester	Fall 2024 degrees will be awarded effective this date.
	18	Final grades due (noon)	

<b>Spring 2025</b>	January 15	Martin Luther King Day	No classes. Campus closed.
	January 20	First day of classes	
	February 17	President's Day	No classes. Campus closed.
	March 17-21	Spring Break	No classes. Campus open.
	May 16	End of semester	
	May 19	Commencement & Convocation	
<b>Summer 2025</b>	June 2	Classes begin	
	July 4	Independence Day Holiday	No classes. Campus closed.
	August 15	End of semester	



# Graduate School

UNIVERSITY OF COLORADO  
ANSCHUTZ MEDICAL CAMPUS

## Academic Calendar – Spring 2025

This calendar:

- applies to MS and PhD programs affiliated with the Graduate School on the **Anschutz Medical Campus**.
  - only includes deadlines pertaining to coursework or those managed through UCDAccess.
- For deadlines pertaining to graduation, please see the Graduation Deadlines document on the Graduate School website.  
For policies, procedures and deadlines related to the tuition waiver benefit, please visit the Employee Services website.

Month	Day	Deadline	Notes
September 2024	9	First day to apply for Spring graduation via UCDAccess.	If you intend to graduate in Spring, you must complete this online application. If you do not, you will not be eligible to receive your degree until Summer.
October 2024	21	First day to submit a <b>new</b> non-degree application or <b>continuing</b> non-degree course permission form.	Taking a class requires active non-degree student status. Continuing non-degree students must submit a signed course permission form to enroll every semester.
	28	Course enrollment for Spring begins in UCDAccess	
December 2024	6	Last day to petition for resident (in-state) student/tuition status.	Funded PhD students who do not establish residency by second year may have to pay the tuition difference.
January 2025	3	Last day to submit a <b>new</b> non-degree application or a <b>continuing</b> non-degree course permission form.	See October 21 for more info.
	20	Martin Luther King Jr. Day	No classes. Campus closed.
	21	First day of Spring full semester classes.	
	31	Last day to add/drop courses in UCDAccess. * Courses dropped after this date will appear on your transcript with a grade of "W." * Students will be charged all tuition and fees for any course dropped after this date. * Students will be charged a \$60 late fee to add courses after this date.	After this date: <ul style="list-style-type: none"> <li>• use the small Add/Drop Form to modify credits or add classes if already enrolled in at least one (1) credit.</li> <li>• students who have not registered in any classes must use the Registrar's Registration Form and get the appropriate Dean's signature.</li> <li>• use the Registrar's Course Withdrawal form to withdraw from (drop) a class.</li> </ul>
		Last day to apply for Spring graduation in UCDAccess.	If you intend to graduate in Spring, you must complete this online application. If you do not, you will not be eligible to receive your degree until Summer.
February 2025	17	Presidents' Day Holiday	No classes. Campus closed.
March 2025	17-21	Spring Break	No classes. Campus open.
May 2025	12-16	Final Examination Week	
	16	End of semester	Spring 2025 degrees will be awarded effective this date.
	19	Commencement & Graduate School Convocation	
	21	Final grades due (noon)	

Summer 2025	June 2	Classes begin	
	July 4	Independence Day Holiday	No classes. Campus closed.
	August 15	Last day of semester	
Fall 2025	August 25	Classes begin	
	September 1	Labor Day Holiday	No classes. Campus closed.
	November 27-28	Thanksgiving Holiday	Campus closed.
	December 19	Last day of semester	



# Graduate School

UNIVERSITY OF COLORADO  
ANSCHUTZ MEDICAL CAMPUS

## Defense and Graduation Deadlines for Anschutz Medical Campus Thesis MS and PhD Students Academic Year 2024-2025

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**\*\*\* Remember: No preliminary format review required! \*\*\***

[Watch](#) how to prepare the correct forms and upload your dissertation.

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**Note for PhD students only:** If you miss deadlines in the current semester, your degree conferral will be postponed to the next semester. But if you defend before the end of the current semester, you don't have to register for additional credit the following semester; just complete the application for graduation the following semester. (Example: If you defend on November 11, 2024, you apply to graduate in Spring 2025 but don't register for Spring 2025.) *This does not apply to any type of master's students. Master's students are required to register the term they are graduating.*

Task	Fall 2024 Graduation	Spring 2025 Graduation	Summer 2025 Graduation
Submit your <b>Application for Graduation</b> (in your UCDAccess student portal) to notify the Registrar and GS of your intent to graduate.	Between: June 10, 2024 and September 6, 2024	Between: September 9, 2025 January 31, 2025	Between: February 3, 2025 and June 6, 2025
<b>Submit to your Program Administrator at least a month prior to the exam! Late requests may result in your committee not having your exam report form, which could delay your graduation.</b>			
Submit <b>Exam Request</b> form to the Graduate School to schedule defense exam.	No later than: October 25, 2024	No later than: April 4, 2025	No later than: June 27, 2025
<i>MS Only:</i> Submit <b>Application for Candidacy</b> form to the Graduate School.	With Exam Request	With Exam Request	With Exam Request
<i>PhD Only:</i> Submit your <b>Biosketch</b> to the Graduate School.	With Exam Request	With Exam Request	With Exam Request
Prepare <b>Thesis Approval</b> form and take it to your defense exam.	By Defense Day	By Defense Day	By Defense Day
Defend your thesis or dissertation.	No later than: November 8, 2024	No later than: April 18, 2025	No later than: July 11, 2025
Submit <b>Thesis Approval</b> form to the Graduate School via high quality scan & email.	No later than: November 29, 2024	No later than: May 2, 2025	No later than: August 1, 2025
Submit final thesis/dissertation to ProQuest.	No later than: November 29, 2024	No later than: May 2, 2025	No later than: August 1, 2025
Make final format edits through ProQuest.	December 6, 2024	May 9, 2025	August 8, 2025
<b>End of Term</b>	December 13, 2024	May 16, 2025	August 15, 2025
<b>Commencement</b>	December 14, 2024	May 19, 2025	N/A

### Reminders to all candidates:

- Follow the Format Requirements for [Theses & Dissertations](#) carefully.
- Download all forms directly from [Graduate School Resources](#) to ensure you have the most current version.
- Your program administrator should review all forms before you (or they) submit to the Graduate School.
- **You must prepare and get your Thesis Approval form signed.** This is separate from the Exam Report, which you will not handle. Both forms require similar signatures and are often confused (usually to the exclusion of the Thesis Approval).
- Only students receiving their degree from CU Anschutz should upload their thesis to the ProQuest site in the format guide.

### Reminders to Master's candidates:

- Refer to your unofficial transcript as you type your Application for Candidacy. The number of credits indicated on the first page should be the minimum required for your program of study. Do not include failed classes or classes that were not necessary for your degree. Courses listed on the Application for Candidacy cannot be counted toward a future master's degree.
- All transfer credits must be posted before you submit your Application for Candidacy.
- You must be registered in the term in which you are graduating.

[https://www.cuanschutz.edu/docs/librariesprovider138/denver-anschutz-graduate-school/resources/deadlines-2024-2025-\(anschutz\)---thesis.pdf?sfvrsn=69f6cbbb\\_2/deadlines-2024-2025-\(anschutz\)---thesis.pdf](https://www.cuanschutz.edu/docs/librariesprovider138/denver-anschutz-graduate-school/resources/deadlines-2024-2025-(anschutz)---thesis.pdf?sfvrsn=69f6cbbb_2/deadlines-2024-2025-(anschutz)---thesis.pdf)

## APPENDIX 2

### **GRADUATE SCHOOL POLICY FOR VACATION AND LEAVE FOR PH.D. STUDENTS**

<https://graduateschool.cuanschutz.edu/forms-resources/resources>

Graduate school is a privilege; working in the biomedical research/academic field, whether as a graduate student, a postdoctoral fellow, or an independent investigator, is a challenging profession requiring a high level of commitment and responsibility. Students who receive full-support stipends from Ph.D. programs at the University of Colorado Anschutz Medical Campus must pursue their training full-time, devoting each day of the typical work week plus any additional time required by their research projects and academic courses. Within those demands and expectations, it is also important to take time away. Consequently, the Graduate School has established the following guidelines for the amount of vacation and leave time allowable for students to maintain full-time student status.

#### **LEAVE TYPES AND AMOUNTS**

**Vacation and Holidays.** Graduate students shall receive all CU Anschutz campus holidays and no more than 10 weekdays (not including weekends) of vacation per annum, with no year-to-year accrual. Students shall continue to receive stipends during vacations and holidays. The times between academic terms and the summers are all considered active parts of the training period and leave must be taken in accordance with this policy. Students supported via extramurally funded projects or training grants must comply with sponsor requirements regarding effort.

**Sick Leave.** Graduate students may continue to receive stipends for up to 11 weekdays (not including weekends and campus holidays) of sick leave per annum, with no year-to-year accrual. Under exceptional circumstances, additional sick days may be granted following a written request from the student and approval by the student's thesis advisor (if known) and program director. Sick leave may be used for medical conditions related to pregnancy and childbirth. Students supported via extramurally funded projects or training grants must comply with sponsor requirements regarding effort.

**Parental Leave.** Graduate students may receive stipends for up to 8 work weeks (not including weekends and campus holidays) of parental leave per annum for the adoption or the birth of a child. Either or both parents are eligible for parental leave. Students must provide advance notification to their thesis advisor (if known) and/or program prior to taking parental leave. Sick leave may not supplement parental leave except as noted above. Students supported via extramurally funded projects or training grants must comply with sponsor requirements regarding effort.

**Unpaid Leave.** Individuals requiring more than 11 weekdays (not including weekends and campus holidays) of sick leave or more than 8 work weeks (not including weekends and campus holidays) of parental leave must seek approval from their thesis advisor (if known) and their program for an unpaid leave of absence. A leave of absence must be

requested by the student and approved by their thesis advisor (if known) and program before taking it. The leave period and conditions must be documented at the times of leave and of re-entry into the program. A copy of this agreement must be submitted to the Graduate School. Students supported via extramurally funded projects or training grants must comply with sponsor requirements regarding effort.

**Unused Leave at Termination.** Upon graduation or termination, a graduate student forfeits all unused vacation, sick, and parental leave; payment may not be made from grant funds (training grants or research grants) for leave not taken.

### ***LEAVE REQUESTS AND REPORTING***

Students are required to report leave requests (vacation, sick, and parental leave) to 1) their thesis advisor, 2) the program in which they reside, and/or 2) their thesis advisor's home department or unit. If both the program and home department/unit provide reporting mechanisms, students will defer to the requirements of the advisor's home department/unit. It is the student's responsibility to identify the correct process for reporting leave.

Students who have not yet joined a thesis lab (e.g., first-year students) are advised to discuss with potential dissertation advisors any additional expectations regarding vacation and leave. After a student has selected their thesis advisor and joined the advisor's research program, they must request and receive approval for vacation leave from their thesis advisor in advance of taking vacation leave. The student must make all necessary arrangements in advance to cover any responsibilities that the student has for the research program or for maintaining their ongoing experiments and/or resources (e.g., cell lines, animals). If students are unable to reach an agreement on vacation leave with their advisor, they can discuss challenges of this nature with program leadership. In all cases, students supported via extramurally funded projects or training grants must comply with sponsor requirements regarding effort.

***Termination*** - Upon graduation or termination a graduate student forfeits all unused annual and sick leave; payment may not be made from grant funds (training grants or research grants) for leave not taken.

## **APPENDIX 3**

### **Resources for Graduate Students**

#### **Academic Calendar** (Graduate School)

<https://www.cuanschutz.edu/registrar/academic-calendars/2024-2025>

#### **Animal Facility/Safety Training**

<http://www.ucdenver.edu/academics/research/AboutUs/animal/Pages/Training.aspx>

#### **Anschutz Campus Bookstore** (303-724-2665)

Located in Education 2 South, first floor. Special bookstore charge accounts are attainable; students should request information at the front registers. The bookstore accepts VISA, MasterCard, American Express, and personal checks with appropriate identification. Bookstore hours are extended during the first week of each quarter.

<https://cuanschutz.bncollege.com/webapp/wcs/stores/servlet/BNCBHomePage?storeId=87741&catalogId=10001&langId=-1>

#### **Bursar's Office** (303-724-8032) <https://www.cuanschutz.edu/student-finances/billing-payments>

The Bursar is responsible for all financial activities related to student billing, tuition collection, institutionally managed loan programs and coordination with the state. Located in Education 2 North, room 3120A

#### **Campus Health Center at CU Anschutz** (303-724-6242)

12348 East Montview Boulevard, Aurora, CO 80045

Services:

- Behavioral and Counseling Services
- Flu Shots
- Physical and General Services

<https://nursing.cuanschutz.edu/patient-care/campus-community-health>

#### **Campus Shuttle**

<https://www.cuanschutz.edu/offices/facilities-management/parking-transportation-maps>

<http://www.ucdenver.edu/about/departments/FacilitiesManagement/ParkingMaps/Pages/ShuttleService.aspx>

#### **CARE Team** (303-352-3579)

The Campus Assessment, Response & Evaluation (CARE) Team was created to address the health and safety needs of students as well as the campus community. The purpose of the team is to assess whether individuals pose a risk to themselves or others and to intervene when necessary, and more generally, to identify and provide assistance to those in need. The team takes a preventative approach to risk assessment by offering resources, referrals, and support to both the concerning individual and those impacted by their behavior.

<https://www.cuanschutz.edu/student/support/care-team>

#### **CeDAR** (720-848-3000)

Center for Dependency, Addiction and Rehabilitation is the University of Colorado Hospital's premier addiction treatment center. Check the events schedule for on-campus recovery meetings.

<https://www.cedarcolorado.org/>

**Disability, Access, & Inclusion (Office of) 303-315-3510)**

The University of Colorado Denver is an educational institution that welcomes and supports a diverse student body. The Disability Resources and Services Office is the designated office that maintains disability-related records, determines eligibility for academic accommodations, determines reasonable accommodations and develops plans for the provision of such accommodations for students attending the university.

<https://www.cuanschutz.edu/offices/office-of-disability-access-and-inclusion>

**Diversity, Equity, Inclusion, and Community Engagement (Office of) (303-724-8003)**

The Office of Diversity and Inclusion (ODI) provides leadership to enhance diversity university-wide and to foster a culture of inclusion

<https://www.cuanschutz.edu/offices/diversity-equity-inclusion-community>

<http://www.ucdenver.edu/about/departments/odi/Pages/default.aspx>

**Ethics and Compliance**      <https://www.cuanschutz.edu/ethics-and-compliance>

**Ethics Hotline (1-800-677-5590)**

CU EthicsLine provides a way to anonymously report concerns involving fiscal misconduct, violations of state or federal law, serious or recurring violations of university policy, or gross waste of university funds or property. The reporting service is provided by EthicsPoint, an independent company that provides similar services for hundreds of companies and universities. Options for 24/7 reporting are via a toll-free phone number (1.800.677.5590) or online ([www.Ethicspoint.com](http://www.Ethicspoint.com)).

**Environmental Health & Safety, Department of (303-724-0345)**

N-95 Respirator Training/Fit-Testing (for those needing to go into the BSL-3)

Radiation Safety Training

<http://www.ucdenver.edu/research/EHS/Pages/EHS.aspx>

**Equity, Office of (303-315-2567)**

Staff can assist with reports of discrimination, harassment, or sexual misconduct. They can also take ADA accommodation requests, and/or reports of accessibility issues.

<https://www1.ucdenver.edu/offices/equity/resolutions/make-a-report>

**Financial Aid (303-724-8039)**

<https://www.cuanschutz.edu/student-finances/financial-aid>

**Family Educational Rights and Privacy Act (FERPA) guidelines**

<https://www.cuanschutz.edu/registrar/student-resources/ferpa>

**Graduate School (303-724-2915)**

<https://graduateschool.cuanschutz.edu/>

**ID/Access Badging Office (303-724-0399)**

<https://www.cuanschutz.edu/police/divisions/electronic-security/badging-office>

<http://www.ucdenver.edu/anschutz/about/location/Police/ElectronicSecurity/SecurityBadgingOffice/Pages/SecurityBadgingOffice.aspx>

**Information Technology, Office of, OIT (303-724-4357)**

<https://www.cuanschutz.edu/offices/office-of-information-technology>

**IT equipment, server, local software in Department of Immunology & Microbiology only**

Please submit all support requests using a ticket at:

<http://Micro-LS1.ucdenver.pvt/support/>

### **LGBTQ Student Resource Center (303-556-6333)**

LGBTQ Student Resource Center is a tri-institutional office on the Auraria Campus serving the students, faculty and staff of Metropolitan State College of Denver, Community College of Denver and University of Colorado at Denver and Health Sciences Center. We are available to students as a resource for exploring issues of sexual orientation and gender identity.

<https://www.cuanschutz.edu/offices/diversity-equity-inclusion-community/programs-and-initiatives/lgbtg-hub>

### **Ombuds Office (303-724-2950)**

The Ombuds Office is a **safe**, confidential, and **nonbiased** resource that members of the University of Colorado-Denver can approach to discuss, voice, and clarify any university-related concerns. We are a neutral third-party resource that is available to hear individual complaints and help sort out and **identify options** for resolving those concerns.

The Ombuds Office is well-trained in listening, facilitating, recommending, mediating, and coaching. Each individual on our team is a member of the International Ombudsman Association and are **Certified Organizational Ombudsman Practitioners**.

We even offer [trainings and seminars](#) for groups and departments to help learn communication skills, conflict management, and effective team building.

<https://www.ucdenver.edu/offices/ombudsoffice>

### **Parking & Transportation (303-724-0049)**

<https://www.cuanschutz.edu/offices/facilities-management/parking-transportation-maps/parking>

### **Police, Anschutz Medical Campus (303-724-4444) Emergencies 911**

### **Registrar, Office of (303-315-2600)**

<https://www.cuanschutz.edu/registrar>

Registering for classes, downloading course books and ordering transcripts

### **Research Core Labs**

<https://researchcores.cuanschutz.edu/>

Advanced Light Microscopy Core	Genomics & Microarray Core
Animal Model Core	High-Throughput Sequencing Core (HTSC)
Biostatistics & Bioinformatics Core	Histopathology Core
Biophysics Core	Mass Spectrometry Core
DNA Sequencing & DNA Analysis Core	Nuclear Magnetic Resonance (NMR) Core
Electron Microscopy Core	Peptide & Protein Chemistry Core
Flow Cytometry Core	

### **Student Health Insurance (303-837-2127)**

<https://www.cuanschutz.edu/student/health-wellness/student-health-insurance>

The Student Health Insurance (SHI) Plan at the Anschutz Medical Campus is designed to provide students with health care coverage, offering a PPO accident and sickness health plan. Located in Education 2 North P28-3207

### **Student Services, Office of Student Affairs**

- American Indian Student Services
- Asian American Student Services
- Black Student Services
- Counseling Services
- Office of Campus Student Services
- Student Conduct and Community Standards, Office of
- Veteran Student Services
- Writing Center

<https://www.cuanschutz.edu/student/services>

<https://www.cuanschutz.edu/student>

**Student Mental Health (303-724-4953) Afterhours emergencies (720-848-0000)**

We provide comprehensive and confidential mental health services for all students enrolled in the schools located at the Anschutz Medical Campus (Medical, Dental, Nursing, Pharmacy, Public Health, Physician Assistant, Physical Therapy, graduate school, etc.). Initial appointments are scheduled relatively quickly, often within the same week. Options for ongoing care include receiving treatment from the AMC Student Mental Health clinicians, the UCH Outpatient Psychiatry Clinic, and a community network of providers, depending on insurance coverage.

[https://medschool.cuanschutz.edu/psychiatry/programs/student-resident-mental-health?\\_ga=2.10547252.1299306743.1597681249-1518195557.1532634900](https://medschool.cuanschutz.edu/psychiatry/programs/student-resident-mental-health?_ga=2.10547252.1299306743.1597681249-1518195557.1532634900)

**Student Portal**

Where you'll update/access your contact information, grades, financial information, employment information- pay, W2's, W-4's, employee ID #, various payroll forms (direct deposit), etc. login is email username & password

<https://portal.prod.cu.edu/UCDAccessFedAuthLogin.html>

**Student Senate (303-315-8254)**

<https://www.cuanschutz.edu/student/campus-life/senate>

**Aurora, City of**

<https://www.auroragov.org/>

**Colorado Department of Transportation**

Road conditions, travel warnings, etc.

<http://www.cotrip.org/home.htm>

**Colorado Secretary of State**

<http://www.sos.state.co.us/>

**Denver County & City**

<http://www.denvergov.org/>

**Denver Convention & Visitor Bureau**

<http://www.denver.org/>

**Department of Revenue – DMV**

Emissions testing is required for registering vehicle in Denver/Arapahoe counties

<https://www.colorado.gov/dmv>

**RTD**

[www.rtd-denver.com](http://www.rtd-denver.com)

**Voter registration**

<https://www.sos.state.co.us/voter-classic/pages/pub/olvr/verifyNewVoter.xhtml>

## **Appendix 4**

### **Student thesis committee report**

A one page thesis committee report should be submitted to the thesis committee one week before each meeting, starting at the second thesis committee meeting and every meeting thereafter. The report should address the following:

- 1) State your overall thesis research goals and hypotheses. Incorporate any changes to those goals resulting from previous committee meetings.
- 2) What were previous concerns/recommendations of previous thesis committee meeting?
- 3) What have you accomplished since then? Discuss how you have addressed previous recommendations, if you did not then why not (ie, not time, took different direction, etc). Include any new methods/techniques you may have learned, any literature sources or collaborators that were significant.
- 4) How did your results affected your original hypothesis or goals? (confirm, deny, modify).
- 5) Based on the data/results described in (3), state briefly your next steps in elucidating the hypotheses.

## **Appendix 5**

[https://graduateschool.cuanschutz.edu/docs/librariesprovider138/denver-anschutz-graduate-school/resources/format-requirements-and-guidelines.pdf?sfvrsn=f3f14ebb\\_2](https://graduateschool.cuanschutz.edu/docs/librariesprovider138/denver-anschutz-graduate-school/resources/format-requirements-and-guidelines.pdf?sfvrsn=f3f14ebb_2)



University of Colorado  
Anschutz Medical Campus

# **Format Guidelines for Theses and Dissertations**

**Requirements and Guidelines for Students Submitting Theses and Dissertations  
to the Graduate School in Partial Fulfilment of Graduate Degrees**

Effective February 2023

**For more specific information, go to the Graduate School's pdf of 'Format Guidelines for Theses and Dissertations',**

[https://graduateschool.cuanschutz.edu/docs/librariesprovider138/denver-anschutz-graduate-school/resources/format-requirements-and-guidelines.pdf?sfvrsn=f3f14ebb\\_2](https://graduateschool.cuanschutz.edu/docs/librariesprovider138/denver-anschutz-graduate-school/resources/format-requirements-and-guidelines.pdf?sfvrsn=f3f14ebb_2)

**QUICK START GUIDE** (included in the link above...)

If you are reading this, you are probably getting close to completing your thesis. Congratulations! Your thesis will be a digitally published scholarly work in ProQuest and you should be proud of both its content and format. This Quick Start Guide details simple choices you can make to meet the Graduate School requirements. Please also review the more detailed recommendations and examples that follow if your formatting needs/preferences aren't met by these abbreviated recommendations. For convenience, we will use "thesis" to broadly refer to all scholarly works produced by masters & doctoral students. The language in CU Anschutz dissertations and theses is English.

### **Formatting Your Thesis**

1. Open a new document and set the following:
  - Margins: 1" all around
  - Font: any easily legible and widely used font (e.g. Arial or Helvetica 11, Calibri 12, Times New Roman 12) If using TeX or LaTeX typesetting, avoid Type 3 fonts.
  - Spacing: Double (but no more)
  - Alignment: Left
  - Paragraph indent: 0.5"
2. Prepare preamble pages in the following order, following the examples in Chapter II: Title Page, Approval Page, Abstract, Table of Contents (Optional: List of Figures, List of Tables, Abbreviations, Dedication, Acknowledgements are recommended in all cases, but detailed Acknowledgements are required if others made substantial contributions to the work contained in your thesis or dissertation)
  - It is acceptable (and easier) to only include chapter titles in the ToC even though the example has several header levels shown. Preamble pages can be included in your ToC, but are optional.
  - Otherwise, follow the templates exactly (content, alignment, spacing, bold, capitalization).
3. Create a page for each of your expected chapters.
  - Each chapter starts at the top of a new page.
  - Chapter titles should be centered, all caps, double-spaced and bold:

## **CHAPTER X**

### **THE TITLE OF YOUR CHAPTER**

4. Create a placeholder page for **REFERENCES**.
  - Title format: bold, centered, all caps
  - Entry format: no indent, single-spaced within entries, double-spaced between entriesConsistent format of references throughout.
5. Insert page numbers in the bottom right corner of the footer.

- Title page is page “i” but suppress it so the first page number is “ii” on the Approval (second) page.
  - Preamble pages are numbered with lowercase Roman numerals (ii, iii, etc.); the body text is numbered with Arabic numbers (1, 2, 3) starting with CHAPTER I as Page 1.
6. Establish your header styles (only regular double space before and after):

**Level 1: Bold, Centered, Title Case, Double Spaced**

**Level 2: Bold, left-aligned, sentence case, double-spaced**

*Level 3: Italic, left-aligned, sentence case, double-spaced*

7. Insert your figures and tables gathered at the end of each chapter.
- Put each table and figure on its own page.
  - If you have landscape tables or figures, see Page 21 for instructions.
  - If you have large tables or figures (take more than one page including the caption), see Page 21 for instructions.
  - Table titles go above the table; figure captions go below the table.
8. Use reference management software such as EndNote, Zotero, Mendeley, CiteUlike, Papers, etc.
9. If necessary, format the appendix title(s) like chapter titles, except use capital letters (A, B, etc.)

**Thesis/Dissertation Organization**

Organize your thesis as follows. The **items marked with an asterisk (\*) are required in every thesis and dissertation**; other items are optional. ("Thesis" is used below for both, for simplicity.) Examples of these items can be found below. Items 1-10 are collectively known as the “preamble” pages of your thesis.

1. Title Page\*
2. Copyright Page (if needed)
3. Approval Page\*
4. Abstract\*
5. Dedication
6. Acknowledgements
7. Table of Contents\* (ToC)
8. List of Tables
9. List of Figures
10. List of Abbreviations      ↑ Number these pages with lowercase Roman numerals (e.g. i, ii, iv)
- .....
11. Introduction (Chapters)\*      ↓ Number these pages with Arabic numbers (e.g. 1, 2, 10)
12. Materials and Methods
13. Research chapters
14. Discussion
15. Endnotes
16. Bibliography, Selected Bibliography or References\* (note that in some submissions these occur in each chapter)
17. Appendix or Appendices

## Common Mistakes

Common Mistake	How to avoid it!
Title page is numbered “i.”	Suppress the page number on the first page or start numbering on the second page with “ii.”
Errors in preamble pages.	Copy the sample pages exactly, including spacing and required text. Do not add embellishments like degrees or titles to faculty except as in the sample.
Program name is wrong in preamble pages.	Use your proper degree name, not your department or colloquial program names. Don’t include tracks.
Your name varies in the preamble pages (e.g. middle included in some but not all places)	Your name should be the same in all three places it appears in the preamble pages
Approval statement isn’t aligned correctly.	Align the approval statement to the right.
Advisor’s title is wrong on the abstract page.	Ask or look up your advisor’s title. It should be Assistant Professor, Associate Professor or Professor, with limited modifications (e.g. Research or Clinical). Do not include other titles (e.g. Department Chair)
Chapters formatted incorrectly in Table of Contents:	Format correctly like this:
Chapter I – Chapter Title.....1	I. Chapter Title.....1
Extra space between paragraphs.	Remove extra space from Word’s default “Normal” style before you start.
On landscape tables/figures, page number is in the correct place for landscape page orientation, but not portrait.	Insert your table/figure on a portrait-oriented page and rotate the table/figure rather than the page.
Headers aren’t applied consistently throughout the thesis.	Choose a simple header format structure Use Styles in Word.
Chapters are numbered with Arabic numerals.	Use Roman numerals.
Short pages (too much white space).	Use the “gathered at the end” method for tables & figures; if using interleaved, make sure text flows to the bottom of the page before and resumes at the top of the page after the table/figure, even if the text breaks mid-sentence. Don’t use page breaks to start new sections on a fresh page unless they would create an orphan header.
Orphan headers.	Each header should be followed by at least two lines of text, else insert a page break to start at the top of the next page.
Thesis submitted to the wrong campus in ProQuest.	Choose your program’s home campus; if you don’t see your program, you are on the wrong campus.

**More specific formatting details can be found at**

[https://graduateschool.cuanschutz.edu/docs/librariesprovider138/denver-anschutz-graduate-school/resources/format-requirements-and-guidelines.pdf?sfvrsn=f3f14ebb\\_2](https://graduateschool.cuanschutz.edu/docs/librariesprovider138/denver-anschutz-graduate-school/resources/format-requirements-and-guidelines.pdf?sfvrsn=f3f14ebb_2)